

"Best Practices" in Student Support Services: A Study of Five Exemplary Sites. Followup Study of Student Support Services Programs

Resource Title: "Best Practices" in Student Support Services: A Study of Five Exemplary Sites. Followup Study of Student Support Services Programs

Description/Annotation: Investigates Student Support Services (SSS), a special program for disadvantaged students, using case studies of five colleges varying in geography, size, and student demographics. Discusses common practices and delivery of services. Academics and government agencies providing support for programs to improve the college experience for disadvantaged students would be interested in the results of this study.

Author Last Name: Muraskin

Author First Name: Lana

Publisher: U.S. Department of Education

Publisher Location: Washington, D.C.

Publication Date: 1997, Aug

Page Numbers: 1-71

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

"Designed to Inspire"

Resource Title: "Designed to Inspire"

Description/Annotation: Powerpoint from 2009 webinar by Thea Sahr, Associate Director, Educational Outreach, WGBH providing information about free resources you can use in your K-12 outreach programs to unleash kids' ingenuity and get them thinking like engineers. Webinar features public television's Curious George, Design Squad, and FETCH with Ruff Ruffman.

Author Last Name: Sahr

Author First Name: Thea
Publisher: WEPAN
Publication Date: 2009, Mar
Source: WEPAN
Source Type: Powerpoint presentation

Resource Type Categories: Webinar/Video Topical Categories: Individual Beliefs and Behaviors » Cognition Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

"Doing it the hard way": Investigations of Gender and Technology

Resource Title: "Doing it the hard way": Investigations of Gender and Technology
Description/Annotation: This book is a collection of the works of Sally Hacker plus a series of interviews by sociologist-feminist Dorothy Smith. It explores Sally Hacker's integration of research with feminist activism.
Author Last Name: Hacker
Author First Name: Sally
Publisher: Unwin Hyman
Publisher Location: Boston
Publication Date: 1990
Database Name: Worldcat
Source Type: Library catalog, Available for sale

Resource Type Categories: Book Topical Categories: Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices

"FAILING GIRLS": Understanding Connections among Identity Negotiation, Personal Relevance, and

Engagement in Science Learning from Underachieving Girls

Resource Title:	"FAILING GIRLS": Understanding Connections among Identity Negotiation, Personal Relevance, and Engagement in Science Learning from Underachieving Girls
Description/Annotation:	This qualitative, exploratory investigation examines engagement in science learning among five underachieving high school girls. Data sources include in-depth interviews, classroom observations, and teacher surveys. The girls were asked to describe engagement within three learning contexts: science class, a favorite class, and an extracurricular activity. From the girls' voices emerge three themes reflecting the centrality of self: "who I am," "who I am becoming," and "the importance of relationships." It is important that these themes of self and of identity negotiation are integrated with the ways these girls find learning personally relevant. One pattern of extracurricular engagement and two patterns of science engagement (integrated and situational) are described. This study attempts to expand the dialogue around the relationships between identity, relevance, and engagement among underachieving girls and suggests ways in which curriculum can be grounded in students' lives and developing identities.
Author Last Name:	Thompson
Author First Name:	Jessica J.
Additional Author:	Windschitti
:	Mark
Publication Date:	2005
Page Numbers:	1-26
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	11
Issue:	1
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Curriculum Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

"Handing the Power-Glasses Back and Forth": Women and Technology in Poems by Adrienne Rich

Resource Title:	"Handing the Power-Glasses Back and Forth": Women and Technology in Poems by Adrienne Rich
Description/Annotation:	This article examines the poems of Adrienne Rich, and the possibility of addressing the question of women's identity with respect to technology.
Author Last Name:	Crawford
Author First Name:	Audrey
Publication Date:	1995
Page Numbers:	35-53
Publication Title:	NWSA Journal
Volume:	7
Issue:	3
Source:	JSTOR
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

"Like a Family": What Works to Create Friendly and Respectful Student-Faculty Interactions

Resource Title:	"Like a Family": What Works to Create Friendly and Respectful Student-Faculty Interactions
Description/Annotation:	The authors conducted site visits to nine undergraduate physics departments, five with high participation by women and four that are typical of the national average, to learn "what works" in attracting and retaining women as undergraduate physics majors. The results show that friendly and informal relationships between faculty members and students are crucial. These relationships are

counterproductive, however, when faculty members transgress appropriate student-faculty boundaries. The authors analyze visits to historically Black colleges and universities, which are extraordinarily productive of female scientists, to learn what works in their department cultures. The authors draw on these site visits to describe models of healthy, supportive, and respectful relationships between faculty members and students.

Author Last Name: Whitten
Author First Name: Barbara L.
Additional Author: Foster
: Suzanne R.
Additional Author: Duncombe
: Margaret. L.
Additional Author: Allen
: Patricia E.
Additional Author: Heron
: Paula
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Faculty Student Interaction](#)

"Microaggressions" in engineering education: Climate for Asian, Latina and White women

Resource Title: "Microaggressions" in engineering education: Climate for Asian, Latina and White women

Description/Annotation: Using a focus group methodology, researchers interviewed women who self-identify as Asian, Latina and White at a large public institution in the southeastern United States. Their narratives are analyzed using the interdisciplinary theoretical framework of "microaggressions" from the social sciences. Microaggressions arise from subtle and covert racist and sexist acts which occur frequently in the lives of marginalized groups. Women of all races, who remain severely underrepresented in engineering, may be considered a marginalized group. For women of color, stereotypes of the "model minority" or "affirmative action baby" also overlay their experiences. Microaggressions occur at multiple levels: at the institutional level, at the interpersonal level, and as jokes or humor that subtly deride women's place in engineering. In this paper, authors provide examples of each of these types of microaggressions in the experiences of women majoring in engineering and how these are processed differently depending on race/ethnicity. Funded by NSF GSE under award #0734062.

Author Last Name: Camacho
Author First Name: Michelle Madsen
Additional Author: Lord
: Susan M.
Publisher: IEEE Computer Society
Publisher Location: Washington, DC
Publication Date: 2011
Page Numbers: S3H-1-1-S3H-6
Publication Title: Proceedings of the 2011 Frontiers in Education Conference
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Cultural Influences](#) » [Stereotype Threat](#)

"Solo" Faculty: Reducing Stress and Increasing Retention

Resource Title: "Solo" Faculty: Reducing Stress and Increasing Retention

Description/Annotation: This 44-page, inexpensive booklet is used in orientation and advancement sessions for early-stage faculty and in leadership-development sessions for chairs, deans, emerging leaders. While the "solo phenomenon" produces six significant stressors, there are ways to short-circuit or reduce those stressors, as this publication outlines. Six Discussion Scenarios are also included.

Author Last Name: Moody

Author First Name: JoAnn

Publisher: JoAnn Moody

Publisher Location: San Diego, CA

Publication Date: 2009

Page Numbers: 44

Source: Diversity on Campus

Source Type: Summary, Table of Contents, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors » Retention](#) [Cultural Influences » Stereotype Threat](#)

"Strategies Within": Forum to Provide Input to CAWMSET & Effect Internal Change

Resource Title: "Strategies Within": Forum to Provide Input to CAWMSET & Effect Internal Change

Description/Annotation: Four page brochure-like summary of efforts that businesses and government can take to increase the recruitment/hiring, advancement and retention of women in the technical workforce. High level points re recruitment, recognition of women, flexible workplace, image management and institutionalizing diversity policy.

Author Last Name: Lamph

Author First Name: Janet Ann

Additional Author: Pico

: Tristan

Additional Author: Stoddard

: Mary Claire
Additional Author: Walling
: Rosemary
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Retention](#)

"The Doors Are Open" But They Don't Come In: Cultural Capital and the Pathway to Engineering Degrees for Women

Resource Title: "The Doors Are Open" But They Don't Come In: Cultural Capital and the Pathway to Engineering Degrees for Women

Description/Annotation: This article discusses women's unequal access to certain types of cultural capital and the role that this plays in their participation in STEM (science, technology, engineering, and math) undergraduate programs. The article analyzes women's experiences on two portions of the pathway to an undergraduate STEM degree: women's experiences prior to college when students are developing an interest in engineering, and their experiences during their undergraduate years. Results indicate that women's limited access to certain types of cultural capital negatively impacts their early interest and knowledge of STEM fields, as well as their success during the undergraduate years.

Author Last Name: Chanderbhan-Forde

Author First Name: Susan

Additional Author: Heppner

: Rebekah S.

Additional Author: Borman

: Kathryn M.

Publisher: Begell House, Inc
Publisher Location: Redding, CT
Publication Date: 2012
Page Numbers: 179-198
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 18
Issue: 2
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

"We've All Learned A lot of Ways Not to Solve The Problem": Perceptions of Science and Engineering Pathways Among Tenured Women Faculty

Resource Title: "We've All Learned A lot of Ways Not to Solve The Problem": Perceptions of Science and Engineering Pathways Among Tenured Women Faculty

Description/Annotation: This study examines aspects of department culture that encourage retention of women science and engineering majors through the perspectives of ten tenured women professors in Florida public university science and engineering departments. Interviewees reflected on their personal experiences and those of their women colleagues and students to develop recommendations on social support and mentorship opportunities, improving treatment of women faculty, and developing departments that also function as a community and family.

Author Last Name: Tyson
Author First Name: Will
Additional Author: Borman
: Kathryn M.

Publication Date: 2010
Page Numbers: 275-291
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Source: Begell House
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

"You're all a bunch of fucking feminists:" Addressing the perceived conflict between gender and professional identities using the Montreal Massacre

Resource Title: "You're all a bunch of fucking feminists:" Addressing the perceived conflict between gender and professional identities using the Montreal Massacre

Description/Annotation: A case study of the Montreal Massacre was employed in a core engineering thermodynamics class, using two video news clips to spur discussion about the event and about the intersection of gender identity and feminist politics with the engineering profession. In the pilot test of our lesson plan, students discussed strategies for addressing overt and subtle sexism, negotiating questions of dress in the profession, the ways they use gendered behavior or gender distancing as strategies, work-life balance, competition and women's success as a threat. Such concerns are not typically included in professionalization aspects of engineering curricula, but their importance for both women and men is evident. We present our lesson plan and discussion outcomes, and address multiple contexts in which this case can be utilized to teach about gender and engineering.

Author Last Name: Riley
Author First Name: Donna
Additional Author: Sciarra
:
Gina-Louise
Publisher: IEEE

Publisher Location: Piscataway, NJ
Publication Date: 2006
Publication Title: Proceedings of the 36th ASEE/IEEE Frontiers in Education Conference
Source: Frontiers in Education
Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » Self-perception

"The image of a woman engineer." Women's identities as engineers as portrayed by historical newspapers and magazines, 1930-1970

Resource Title: "The image of a woman engineer." Women's identities as engineers as portrayed by historical newspapers and magazines, 1930-1970

Description/Annotation: The Society of Women Engineers' National Collection is an archive with rich potential for investigating the historical story of women's identities as engineers. Filled with newspaper and magazine clippings, oral histories of pioneer women engineers, and SWE's own institutional history, these archives allow us to see how women engineers were skillfully positioned as acceptably feminine, despite their peculiar profession. In this paper authors describe the content analysis method by which authors processed these historical data, and some of the conclusions dawn about women's identities as engineers as portrayed through historical public sources drawn from 1900-1980 with a focus on the 1950s and 1960s.

Author Last Name: Pawley
Author First Name: Alice
Additional Author: Tonso
: Karen
Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences](#) » [Media & Entertainment Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

'Can I Get Your Email': Gender, Networking and Social Capital in an Undergraduate Bioengineering Classroom

Resource Title: 'Can I Get Your Email': Gender, Networking and Social Capital in an Undergraduate Bioengineering Classroom

Description/Annotation: This article explores how female and male biomedical engineering students network and generate social capital in an undergraduate classroom. Stark differences were observed between female and male students and their interactions with a series of guest lecturers. Although women engineering students may be differentially affected by how they raise their social capital, this study does not suggest that women engineering students are wholly incapable of raising their social capital.

Author Last Name: Erickson
Author First Name: Shelley K.
Publication Date: 2007
Page Numbers: 175-189
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

'Gender-into-teaching' at the Vienna University of Technology. Experiences and reflections on an Austrian project

Resource Title:	'Gender-into-teaching' at the Vienna University of Technology. Experiences and reflections on an Austrian project
Description/Annotation:	'Gender-into-teaching' is the first Austrian project to develop strategies on how to implement gender topics at a technical university. This paper highlights the project in general as well as its results.
Author Last Name:	Knoll
Author First Name:	Bente
Additional Author:	Ratzer
:	Brigitte
Publication Date:	2009
Page Numbers:	411-418
Publication Title:	European Journal of Engineering Education
Volume:	34
Issue:	5
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

(De)valuing Teaching in the Academy: Why are Underrepresented Graduate Students Overrepresented in Teaching and Outreach?

Resource Title: (De)valuing Teaching in the Academy: Why are Underrepresented Graduate Students Overrepresented in Teaching and Outreach?

Description/Annotation: This study explores a science outreach program that serves to broaden graduate education for a group of underrepresented STEM graduate students interested in careers in science education and outreach. Through interviews with 24 former and current outreach participants, researchers examine the graduate experiences and career paths of these students and their formation of science identities that challenged the dominant discourses and values within their departments. This study raises issues that suggest why women and minorities may be underrepresented in academic research and overrepresented in outreach and education.

Author Last Name: Thiry

Author First Name: Heather

Additional Author: Laursen
: Sandra L.

Additional Author: Liston
: Carrie

Publication Date: 2007

Page Numbers: 391-419

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

(Re)Gendering Science Fields: Transforming Academic Science and Engineering

Resource Title: (Re)Gendering Science Fields: Transforming Academic Science and Engineering

Description/Annotation: This five-page article serves as an introduction to a special journal issue based on a 2002 conference hosted by the Iowa State University Women's Studies Program on retaining women in STEM academic fields. This would be a useful resource to those trying to determine if the rest of the volume would be valuable.

Author Last Name: Bystydzienski

Author First Name: Jill

Publisher: John Hopkins University Press

Publisher Location: Baltimore, MD

Publication Date: 2004, Spring

Page Numbers: viii-xii

Publication Title: NWSA Journal

Volume: 16

Issue: 1

Source: Project Muse

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

(Re)Producing Good Science Students: Girls' Participation in High School Physics

Resource Title: (Re)Producing Good Science Students: Girls' Participation in High School Physics

Description/Annotation: In this ethnographic study, the author describes the meanings of science and science student in a physics classroom in an upper-middle-class high school, and the ways girls participated within these meanings. The classroom practices reproduced prototypical meanings of science (as "authoritative") and science student (as "dutiful"). The results highlight girls' embrace of prototypical school science. Yet at the end of the school year, the girls did not consider themselves "science people," nor did they want to pursue physics further.

Author Last Name: Carlone
Author First Name: Heidi B.
Publication Date: 2003
Page Numbers: 17-34
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 1
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-](#)
[perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

100 Women Leaders in STEM WEB

Resource Title: 100 Women Leaders in STEM WEB
Description/Annotation:
Author Last Name: Fraser
Author First Name: Edie
Publication Date: 2012
Page Numbers: 1-159
Publication Title: 100 Women Leaders in STEM WEB

101 Facts on the Status of Working Women

Resource Title: 101 Facts on the Status of Working Women
Description/Annotation: List of 101 statistics on working women compiled from different sources which are listed at the bottom of the report. Categories, all related to working women, include women in the U.S. labor force, the wage gap, women in higher education, childcare, women in Fortune 500 and 1000 companies, women entrepreneurs, and more. Excellent overview information for initial benchmarking or presentation information.

Author Last Name: Business and Professional Women's Foundation
Publisher: Business and Professional Women's Foundation
Publisher Location: Washington, D.C.
Publication Date: 2007, Oct
Page Numbers: 1-8
Source: BPW Foundation
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Salary](#)

2 Senators Push Equality For Girls in Math, Science

Resource Title: 2 Senators Push Equality For Girls in Math, Science
Description/Annotation: This short news article contains a very brief description of two senators' push to increase application of Title IX to increase opportunities for women in math, science, and engineering.
Author Last Name: Cavanagh
Author First Name: Sean
Publisher: Education Week
Publication Date: 2005, May 18
Page Numbers: 23-23
Publication Title: Education Week
Volume: 24
Issue: 37
Source: Education Week
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

20 Websites Every Scientist (or Engineer) Should Know

Resource Title:	20 Websites Every Scientist (or Engineer) Should Know
Description/Annotation:	A list of 20 great websites that every scientist, engineer, or geek-at-heart ought to know about.
Author Last Name:	Spiro
Author First Name:	Mary
Publisher:	Examiner.com
Publication Date:	2009, Jun 18
Source:	The Examiner
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

2001 College-Bound Seniors: A Profile of SAT Program Test Takers

Resource Title:	2001 College-Bound Seniors: A Profile of SAT Program Test Takers
Description/Annotation:	This 22-page report presents summary statistics on SAT test takers who graduated high school in 2001. There is no analysis or discussion in this report.
Author Last Name:	College Entrance Examination Board
Publisher:	College Entrance Examination Board
Publication Date:	2001
Page Numbers:	1-22
Source:	ECS
Source Type:	Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

2001 Survey of Literature

Resource Title: 2001 Survey of Literature

Description/Annotation: Society of Women Engineers (SWE) literature review assessing major themes in 2001 research-based articles related to women in engineering. Publications are from the year 2001, and most were indexed and abstracted in the major literature databases. Doctoral dissertations cited were published in the year 2000. Article includes extensive bibliography from 2001 publications.

Author Last Name: Thielen

Author First Name: Claire

Publisher: Society of Women Engineers (SWE)

Publisher Location: Chicago, IL

Publication Date: 2002

Source: SWE

Source Type: Zip File/PDF

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

2002 Survey of Literature

Resource Title: 2002 Survey of Literature

Description/Annotation: Society of Women Engineers (SWE) literature review assessing major themes in 2002 research-based articles related to women in engineering. Authors highlight articles and dissertations regarding interest in understanding the movement of women and girls into and through the engineering pipeline and their experiences in that pipeline. Article includes extensive bibliography from 2002 publications.

Author Last Name: Frehill

Author First Name: Lisa M.

Additional Author: Benton-Speyer

: Jammie
Additional Author: Hunt
: Pamela
Publisher: Society of Women Engineers (SWE)
Publisher Location: Chicago, IL
Publication Date: 2003
Source: SWE
Source Type: Zip File/PDF

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

2009 Gotta Have IT

Resource Title: 2009 Gotta Have IT
Description/Annotation: This digital library from the National Center for Women & Information Technology (NCWIT) was designed with educators' needs in mind and builds awareness and interest in computing. The resource includes links to a select set of 18 computing resources, including high-quality posters, computing and careers information, digital media and more.
Author Last Name: NCWIT
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2009, Jun
Source: NCWIT
Source Type: Digital Library

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

2009 Technical Executive Forum - The Recruitment, Retention, and Advancement of Technical Women: Breaking Barriers to Cultural Change in Corporations

Resource Title:	2009 Technical Executive Forum - The Recruitment, Retention, and Advancement of Technical Women: Breaking Barriers to Cultural Change in Corporations
Description/Annotation:	This 15-page report summarizes 3 key topics of the 2009 Anita Borg Institute (ABI) Technical Executive Forum: a review of cultural issues that prevent the recruitment, retention, and advancement of technical women; solutions for cultural change; and breakout sessions focused on specific ideas and actions. The forum was held at the Grace Hopper Celebration of Women in Computing, an initiative which brings together thought leaders to raise awareness and drive action among R&D executives on issues regarding the recruitment, retention, and advancement of technical women
Author Last Name:	Simard
Author First Name:	Caroline
Publisher:	Anita Borg Institute for Women and Technology
Publisher Location:	Palo Alto, CA
Publication Date:	2009, Nov
Page Numbers:	1-15
Source:	ABI
Source Type:	Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

2009-2010 Biennial Report to Congress: Broadening Participation in America's STEM Workforce

Resource Title:	2009-2010 Biennial Report to Congress: Broadening Participation in America's STEM Workforce
Description/Annotation:	This 55 page biennial report to Congress includes progress by the Committee on Equal Opportunities in Science and Engineering

(CEOSE). CEOSE presents a trend analysis of the numbers of women, minorities, and persons with disabilities involved in STEM education; a trend analysis of NSF's funding of underrepresented principal investigators and broadening participation programs; a profile of the Foundation's workforce of scientists and engineers; a review of CEOSE's focus and activities during 2009-2010; recommendations for improving NSF's broadening participation programs and outcomes to date; and the Committee's plans for 2011-2012.??

Author Last Name: CEOSE
Publisher: National Science Foundation
Publisher Location: Washington, D.C.
Publication Date: 2011, Jun
Page Numbers: 1-55
Source: NSF
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Retention](#)

2010-2011 Taulbee Survey: Continued Increase in Undergraduate CS Degree Production; Slight Rise in Doctoral Production

Resource Title: 2010-2011 Taulbee Survey: Continued Increase in Undergraduate CS Degree Production; Slight Rise in Doctoral Production

Description/Annotation: This 18-page report from the Computing Research Association (CRA) details the results of the 2010-2011 Taulbee Survey, an annual survey that documents the trends in student enrollment, degree production, employment of graduates, and faculty salaries in academic units in the U.S. and Canada that grant degrees in computer science and computer engineering (CS & CE). The report presents data and statistics on doctoral degree production, enrollments and employment; master's and bachelor's degree production and enrollments; faculty demographics; research expenditures; graduate student support; and faculty salaries. The full report is available in PDF format.

Author Last Name: Zweben
Author First Name: Stuart
Additional Author: Bizot
:
Betsy
Publisher: Computing Research Association (CRA)
Publisher Location: Washington, DC
Publication Date: 2012, May
Page Numbers: 7-24
Publication Title: Computing Research News
Volume: May 2012
Source: CRA
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

4 Schools for Women in Engineering Innovative Approaches to Increase Middle School Students Interest in STEM

Resource Title: 4 Schools for Women in Engineering Innovative Approaches to Increase Middle School Students Interest in STEM

Description/Annotation: This paper discusses a collaboration which is a model for a consortium of colleges to leverage each other to do outreach to K-12 and girls. It's a mixture of gender inclusive approaches with role models, hands-on activities, collaborative learning, and real world applications. This paper discusses project goals, implementation, evaluation, and dissemination plans.

Author Last Name: Reisberg
Author First Name: Rachelle
Additional Author: Leventman
:
Paula

Additional Author: Ziemer
:
Additional Author: Katherine Blaisdell
:
Additional Author: Stephanie Swan
:
Additional Author: Anna
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

7 Leaders Share Insights About Work-Life Balance

Resource Title: 7 Leaders Share Insights About Work-Life Balance
Description/Annotation: Work-life balance in the STEM field, is crucial for professional success. Syracuse University's Whitman School of Management has published a work-life balance resource for working professionals in STEM. Highlighted in the resource are established leaders of top companies that offer advice and tips regarding maintaining a healthy balance between work and life.
Source: <https://onlinebusiness.syr.edu/blog/7-leaders-work-life-balance/>
Source Type: Link to abstract

Resource Type Categories: [Articles/Reports](#) [Interviews](#) [Website/Portal](#) Topical Categories: [Career Factors](#)

A Bridge for All: Higher Education Design Principles to Broaden Participation in Science, Technology, Engineering and Mathematics

Resource Title: A Bridge for All: Higher Education Design Principles to Broaden Participation in Science, Technology, Engineering and Mathematics

Description/Annotation: Report authored by BEST to assess exemplary and promising practices for university-based programs advancing STEM diversity. Advocates promoting national strategy based on four building blocks - understanding the principles of successful programs, improving the scalability of programs, collaborating with stakeholders and engaging within communities.

Author Last Name: BEST

Publisher: Building Engineering and Science Talent

Publication Date: 2004

Page Numbers: 44

Source: BEST

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Challenge to Academic Health Centers and the National Institutes of Health to Prevent Unintended Gender Bias in the Selection of Clinical and Translational Science Award Leaders

Resource Title: A Challenge to Academic Health Centers and the National Institutes of Health to Prevent Unintended Gender Bias in the Selection of Clinical and Translational Science Award Leaders

Description/Annotation: Article examines why men, compared with women, are far more likely to be selected as PIs in Clinical and Translational Science Award (CTSA) proposals. Describes research on the characteristics of effective leadership and research relevant to the impact of unintended biases on women's success. On the basis of this background, offers suggestions to the NIH and academic institutions for facilitating the selection of the best person-man or women-to lead a CTSA program.

Author Last Name: Carnes

Author First Name: Molly
Additional Author: Bland
: Carole
Publisher: AAMC
Publication Date: 2007
Page Numbers: 202-206
Publication Title: Academic Medicine
Volume: 82
Issue: 2
Source: AAMC
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Stereotype Threat](#)

A Closer Examination of Barrier to Participation in Information Science Education for Latinos and Caucasians

Resource Title: A Closer Examination of Barrier to Participation in Information Science Education for Latinos and Caucasians

Description/Annotation: Based on quantitative surveys with 323 respondents from two communities in Colorado, this paper examines the effect of selected barriers (e.g., cost, transportation) and interest levels in science to predict participation in informal science education (ISE). Results indicate that lack of awareness of ISE opportunities is a common barrier for both Latino and Caucasian groups, and interest in ISE is the strongest predictor overall. Other barriers including time, language, and cost are analyzed and discussed as well.

Author Last Name: Bruyere
Author First Name: Brett L.
Additional Author: Billingsley
: Ethan D.

Additional Author: O'Day
:
Lori
Publication Date: 2009
Page Numbers: 1-14
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal](#)
[Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A closer look at gender in NAEP mathematics achievement and affect data: Intersections with achievement, race/ethnicity, and socioeconomic status

Resource Title: A closer look at gender in NAEP mathematics achievement and affect data: Intersections with achievement, race/ethnicity, and socioeconomic status

Description/Annotation: The gender gap in math achievement and attitudes has been measured by the U.S. National Assessment of Educational Progress (NAEP). This 22 page peer-reviewed article describes these gender gaps as measured from 1990-2003 by the NAEP. Relationships between math achievement and race, socioeconomic status, and proficiency and percentile levels were described and results reported. Findings indicate gender gaps favoring male students are small but not decreasing over the years, are concentrated at the upper end of scores, are more consistent in white, high socioeconomic status students yet non-existent in black students. K-12 teachers and curriculum planners would find this information valuable and useful for supporting changes in the curriculum or teaching methods.

Author Last Name: McGraw

Author First Name: Rebecca

Additional Author: Lubienski
:
Additional Author: Sarah T. Strutchens
:
Publisher: Marilyn E. National Council of Teachers of Mathematics
Publisher Location: Reston, VA
Publication Date: 2006, Mar
Page Numbers: 129-150
Publication Title: Journal for Research in Mathematics Education
Volume: 37
Issue: 2
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

A cluster-analytic investigation of subtypes of adult career counseling clients: Toward a taxonomy of career problems

Resource Title: A cluster-analytic investigation of subtypes of adult career counseling clients: Toward a taxonomy of career problems

Description/Annotation: Two hundred and seventy-eight adults who ranged in age from 18 to 69 years and were voluntarily in career counseling completed measures pre- and postcounseling to assess career-related variables (e.g., vocational identity) and psychological issues that may affect career concerns (e.g., level of psychological distress). Participant-clients received 1 to 14 sessions of individual career counseling, according to the need of each participant. The counselors were trained to use a holistic method of career counseling that emphasized the importance of considering career and psychosocial concerns together in working with the client. Using cluster analysis, four distinct types of career counseling clients were identified that provides an initial taxonomy of career

problems with adult career clients. Pre- and postcounseling differences among clusters were examined. Implications of the findings for career counseling practice and further research are discussed. Funded by NSF GSE under award #0624720.

Author Last Name: Multon
Author First Name: Karen D.
Additional Author: Wood
: Rhonda
Additional Author: Heppner
: Mary J.
Additional Author: Gysbers
: Norman C.
Publication Date: 2007
Page Numbers: 66-86
Publication Title: Journal of Career Assessment
Volume: 15
Source: University of Missouri
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Professional Development Publications by Funder](#)

A Collaborative Effort to Recruit and Retain Underrepresented Engineering Students.

Resource Title: A Collaborative Effort to Recruit and Retain Underrepresented Engineering Students.

Description/Annotation: Paper describes four organizations that have successfully planned and executed several partnering activities that have resulted in an increase in the enrollment and retention of students, particularly women and minority undergraduates. Would be a useful first source for schools looking to start similar programs.

Author Last Name: Anderson-Rowland

Author First Name: Mary R.
Additional Author: Blaisdell
: Stephanie
Additional Author: Fletcher
: Shawna
Additional Author: Fussell
: Peggy A.
Additional Author: McCartney
: Mary
Publication Date: 1999
Page Numbers: 323-349
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 5
Issue: 4
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering by Gender

Resource Title: A Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering by Gender

Description/Annotation: This study seeks to examine key extrinsic and intrinsic factors that encourage or discourage persistence in attaining an engineering degree and pursuing an engineering-related career among both male and female undergraduates. Quantitative and qualitative findings from nine participating undergraduate degree programmes reveal that career expectations formulated through

educational experiences as undergraduates play a key role in motivating students.

Author Last Name: Amelink
Author First Name: Catherine T.
Additional Author: Meszaros
:
Peggy S.
Publication Date: 2011
Page Numbers: 47-62
Publication Title: European Journal of Engineering Education
Volume: 36
Issue: 1
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering by Gender

Resource Title: A Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering by Gender

Description/Annotation: This 16-page journal article contains the findings of a study seeking to examine key extrinsic and intrinsic factors that encourage or discourage persistence in attaining an engineering degree and pursuing an engineering-related career among both male and female undergraduates. Quantitative and qualitative findings from nine participating undergraduate degree programs reveal that career expectations formulated through educational experiences as undergraduates play a key role in motivating students. The findings have several practical implications that faculty and administrators can employ in shaping the undergraduate experience to encourage short- and long-term interest in engineering among both male and female students. The full article is available for purchase.

Author Last Name: Amelink
Author First Name: Catherine T.
Additional Author: Meszaros
:
Peggy S.
Publisher: Taylor and Francis Group
Publisher Location: Abingdon, Oxford, UK
Publication Date: 2011
Page Numbers: 47-62
Publication Title: European Journal of Engineering Education
Volume: 36
Issue: 1
Source: Taylor and Francis Group
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Comparison of Male and Female Student Issues that Affect Enrollment and Retention in Electronics and Computer Engineering Technology Programs at a For-Profit Institution

Resource Title: A Comparison of Male and Female Student Issues that Affect Enrollment and Retention in Electronics and Computer Engineering Technology Programs at a For-Profit Institution

Description/Annotation: This paper compares men and women in terms of self-confidence and self-efficacy as two of the dependent variables related to the enrollment and retention issues in electronics programs at a for-profit institution. Surveys were administered to 576 students in electronics programs at the for-profit institution's two campuses in the fall 2004 trimester. The research findings showed that even though there was no significant main effect of program level, there was a significant main effect of gender on self-confidence.

Male students had significantly higher self-confidence ratings than female students in the end program level.

Author Last Name: Agajanian
Author First Name: Aram
Additional Author: Morgan
:
Additional Author: Timpson
:
Additional Author: William M.
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Comparison of Nine Universities' Academic Policies from 1988 to 2005

Resource Title: A Comparison of Nine Universities' Academic Policies from 1988 to 2005

Description/Annotation: This study compares academic policies related to academic good standing, probation, suspension, and expulsion at nine universities over 17 years providing a benchmark to which others can compare. The print and on-line versions of the undergraduate catalogs from 1988-2005 for each of the nine public universities in the southeastern United States were examined regarding those policies. Each school requires a 2.0 cumulative grade point average for graduation, but students earlier in their careers may remain in good standing with lower CGPAs. Students not in good standing may be put on probation while remaining in school and given a chance to improve their grades. Failing that, they may be suspended with various paths to return. After one or two suspensions, students are expelled, although six institutions have policies allowing them to return after time away. Grade forgiveness policies are also examined. We find that over time

those institutions with lower standards for good standing have raised them. This study lays a foundation for a study answering larger questions about how these policies affect enrollment, persistence, and graduation, particularly among women and minority students majoring in engineering at these institutions. Funded by NSF GSE under award #0734062 & #0734085.

Author Last Name: Brawner
Author First Name: Catherine E.
Additional Author: Frillman
:
Additional Author: Sharron
:
Additional Author: Ohland
:
Additional Author: Matthew W.
Publication Date: 2010
Source: ERIC
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

A Compendium of the SWE Annual Literature Reviews on Women in Engineering

Resource Title: A Compendium of the SWE Annual Literature Reviews on Women in Engineering

Description/Annotation: Collection of annual SWE literature reviews excerpted from SWE magazine from 2001-2011. Each literature review contains expert analysis and a bibliography of issues related to women in STEM in education and the workplace. Online, aggregated resource will be extended each year.

Author Last Name: Perusek (ed.)
Author First Name: Ann
Publisher: Society of Women Engineers
Publisher Location: Chicago, IL

Publication Date: 2011
Page Numbers: 223
Publication Title: SWE Magazine (excerpts from 2002-2011)
Source: SWE
Source Type: Full text (via online magazine reader)

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Continuous Series of Outreach Programs to Recruit Young Women to Engineering

Resource Title: A Continuous Series of Outreach Programs to Recruit Young Women to Engineering

Description/Annotation: The Rochester Institute of Technology's Women Engineering program (WE@RIT) has developed a continuous series of outreach programs for young women in grades 6-12. The sequence has been developed partly to help recruit more women applicants to RIT's predominantly male student body and partly in response to parent requests for more programs for their daughters. An overview of all five programs is presented here.

Author Last Name: DeBartolo
Author First Name: Elizabeth
Additional Author: Bailey
:
Margaret

Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Link Type: Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

A Cosmetics Module for Women in Engineering Programs

Resource Title: A Cosmetics Module for Women in Engineering Programs

Description/Annotation: This paper discusses a week-long workshop at Rowan University titled AWE: Attracting Women into Engineering during the summer. This workshop is targeted for female students from the 7th and 8th grades to expose them to the challenges and excitement of engineering. Novel hands-on experiments in the various fields of engineering with state of the art technology are used to boost the participants' interest in engineering. This paper examines the cosmetics module added to the workshop to introduce the participants to the ingredients in lipstick and their physical properties, as well as the production process of lip gloss and lipstick. Authors expect that the workshop will encourage young women to consider engineering as a course of study and/or a career, thereby attracting new and more diverse engineering talent to the workforce.

Author Last Name: Hollar

Author First Name: Kathryn

Additional Author: Moran
:
Megan

Additional Author: Schepis
:
Victoria

Additional Author: Jahan
:
Kauser

Publication Date: 2002

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Link Type: Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Course in Spatial Visualization and Its Impact on the Retention of Female Engineering Students

Resource Title: A Course in Spatial Visualization and Its Impact on the Retention of Female Engineering Students

Description/Annotation: This 20-page paper describes an intervention aimed at improving the spatial visualization skills of women engineering students at Michigan Tech and the results of the intervention on spatial skills and program retention.

Author Last Name: Sorby

Author First Name: Sheryl A.

Publication Date: 2001

Page Numbers: 153-172

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 2

Database Name: Begell House

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

A Cox Regression Analysis of a Women's Mentoring Program in Engineering

Resource Title: A Cox Regression Analysis of a Women's Mentoring Program in Engineering

Description/Annotation: This paper describes a women's mentoring program at an elite engineering school and applies Cox regression with time-dependent covariates as a major part of its evaluation. The 241 women who had participated in the program from 1999 to 2007 were found to be significantly more likely to be retained in engineering than nonparticipants at any given length of time spent

in engineering. Results of the analysis were supported by the most recent questionnaire data about the program, which indicated that students thought the program successfully provided key elements to improving retention.

Author Last Name: Marszalek
Author First Name: Jacob
Additional Author: Linnemeyer
: Susan A.
Additional Author: Haque
: Tabassum
Publication Date: 2009
Page Numbers: 143-165
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Mentoring](#) [Educational Factors](#) » [Retention](#)

A Cross-Institutional Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering

Resource Title: A Cross-Institutional Comparison of Educational Factors Promoting or Discouraging the Intent to Remain in Engineering

Description/Annotation: This study looks at factors that encourage or discourage engineering undergraduates from continuing in an engineering program. Differences by gender and institutional type among factors that encourage or discourage motivation to remain in engineering programs are also explored using a mixed-method approach. Findings provide insight to retention issues across engineering colleges and influences of gender on retention.

Author Last Name: Meszaros
Author First Name: Peggy S.
Additional Author: Amelink
:
Catherine T.
Publication Date: 2009
Publication Title: ASEE 2009 Conference Proceedings
Source: ASEE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Cultural Influences Educational Factors](#) [Cultural Influences](#) » [Gender Diversity Educational Factors](#) » [Retention](#)

A Cross-Sectional Study of Engineering Students' Self-Efficacy by Gender, Ethnicity, Year, and Transfer Status

Resource Title: [A Cross-Sectional Study of Engineering Students' Self-Efficacy by Gender, Ethnicity, Year, and Transfer Status](#)

Description/Annotation: This is a cross-sectional study of 519 undergraduate engineering majors' self-efficacy beliefs at a large, research extensive, Midwestern university. No significant differences in mean engineering self-efficacy scores were found by gender, ethnicity, and transfer status. However, significant interactions between gender and the subscales, ethnicity and the subscales, and transfer status and the subscales were found. Significant differences in mean engineering self-efficacy scores were found among years students had been enrolled in the program.

Author Last Name: Concannon
Author First Name: James P.
Additional Author: Barrow
:
Lloyd H.
Publication Date: 2009, Apr
Page Numbers: 163-172
Publication Title: Journal of Science Education and Technology

Volume: 18
Issue: 2
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Interviews Articles/Reports](#) » [Journal Articles Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Deeper Partnership

Resource Title: A Deeper Partnership

Description/Annotation: This article from ASEE's PRISM Magazine details how engineering educators play a vital role in improving K-12 science, technology, engineering, and math (STEM) instruction. The article emphasizes the importance of embedding engineering into STEM curriculum. According to the article, outreach is a two-way street and colleges of engineering can themselves benefit from K-12 efforts in attracting a more diverse student body, and improving persistence and teaching quality. The article features several examples of how educators are putting the "E" into STEM instruction.

Author Last Name: Lord

Author First Name: Mary

Publisher: American Society for Engineering Education (ASEE)

Publisher Location: Washington, DC

Publication Date: 2012, Jan

Publication Title: ASEE PRISM Magazine

Volume: 21

Issue: 5

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Pedagogy & Instruction](#)

A Delphi Study to Structure a Working Conference on Women's Success in STEM

Resource Title: A Delphi Study to Structure a Working Conference on Women's Success in STEM

Description/Annotation: In this paper the authors present results of a qualitative study that was conducted to provide structure for a working conference scheduled for late Spring 2007 intended to a) foster intergenerational and interdisciplinary dialogue on workplace factors associated with women's success in STEM, and b) develop a set of potential research questions to guide future work. This qualitative study implemented a process where principles of content analysis and the Delphi methodology were applied in structuring a working conference. Preliminary results of such process are presented here.

Author Last Name: Brunette

Author First Name: Maria

Additional Author: Rayman

: Paula

Additional Author: Bond

: Meg

Additional Author: Yuan

: Lu

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

A Diagnostic-ration Approach to Measuring Beliefs about the Leadership Abilities of Male and Female Managers

Resource Title: A Diagnostic-ration Approach to Measuring Beliefs about the Leadership Abilities of Male and Female Managers

Description/Annotation: Research done using a diagnostic-ration measurement strategy. Approximately 150 managers judged the effectiveness of other middle managers (both male and female) as it relates to leadership. They were rated on their proclivity to exhibit each of 14 leader behaviors. The outcome: males were more likely to exhibit some leader behaviors while others were exhibited more by females. Stigmatism of gender groups is discussed.

Author Last Name: Martell

Author First Name: Richard F.

Additional Author: DeSmet

: Aaron L.

Publisher: American Psychological Association, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2001, Dec

Page Numbers: 1223-1231

Publication Title: Journal of Applied Psychology

Volume: 86

Issue: 6

Source: APA

Database Name: APA PsycNET

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Career Factors Career Factors » Leadership & Management

A European research on women and Engineering Education (2001-2002)

Resource Title: A European research on women and Engineering Education (2001-2002)

Description/Annotation: Preoccupied by the fact that the number of women involved in Engineering in Europe is increasing too slowly, a consortium (teams from seven countries) was created in 2001 with the aims to understand why is this the case, and to study means which exist and are effective in attracting women into Engineering training. Based on the study, conclusions and recommendations have been written, and are presented in the paper.

Author Last Name: Beraud

Author First Name: Andre

Publication Date: 2003

Page Numbers: 435-451

Publication Title: European Journal of Engineering Education

Volume: 28

Issue: 4

Source: Taylor and Francis

Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Feminist Approach to University-Industry Relations: Integrating Theories of Gender, Knowledge, and Capital

Resource Title: A Feminist Approach to University-Industry Relations: Integrating Theories of Gender, Knowledge, and Capital

Description/Annotation: This paper explains why information about university-industry ties is relevant to global justice issues and should be garnering critical scrutiny from various feminist perspectives. Knowledge about university-industry ties aids in understanding of: (1) nonhierarchical structures; (2) academic capitalism and intellectual property laws; (3) how exclusion of women from technoscience networks shapes technology, commodifies

women's bodies, and has implications for justice in developing nations.

Author Last Name: Smith-Doerr
Author First Name: Laurel
Additional Author: Croissant
:
Jennifer
Publication Date: 2011
Page Numbers: 251-269
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career](#)
[Factors](#) » [Organizational Culture](#)

A Focus Group Evaluation of an Academic Success Program and Support System for Transfer Students

Resource Title: A Focus Group Evaluation of an Academic Success Program and Support System for Transfer Students

Description/Annotation: This 12-page paper from the 2012 WEPAN National Conference describes an Academic Success Program leveraged by four funded NSF grants in the School of Engineering at Arizona State University. The paper contains a focus group in-depth evaluation with first-year transfer students which describes the students' interest in engineering, their transfer process, their experience with the program, and their future plans. The conference paper also features lessons learned that apply to academic success programs, as well as women in engineering programs. The full paper is available in PDF format.

Author Last Name: Anderson-Rowland
Author First Name: Mary R.

Additional Author: Rodriguez
:
Armando A.
Additional Author: Dunn
:
Lenay D.
Additional Author: Leite
:
Stefanie L.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-12
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas

Resource Title: A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas

Description/Annotation: This book, currently only available as a prepublication, proposes a new approach to K-12 science education that will capture students' interest and provide them with the necessary foundational knowledge in the field. The resource outlines a broad set of expectations for students in science and engineering in grades K-12 that will inform the development of new standards for K-12 science education and, subsequently, revisions to curriculum, instruction, assessment, and professional development for educators. This book identifies three dimensions that convey the disciplinary core ideas and practices around which science and engineering education in these grades should be built. The book will guide standards developers, curriculum designers, assessment developers, teacher educators, state and district science administrators, teachers, and educators who work in informal science environments. Although the book is currently available as a PDF of the prepublication, the final version can be pre-ordered.

Author Last Name: National Research Council
Publisher: The National Academies Press
Publisher Location: Washington, DC
Publication Date: 2012, Mar
Page Numbers: 1-270
Source: NAP
Source Type: Abstract/Prepublication/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Informal Academic Preparation](#)

A Graduate Experience of Women and International Students in Mathematics

Resource Title: A Graduate Experience of Women and International Students in Mathematics

Description/Annotation: This paper discusses the doctoral experience of women and international students in mathematics and examines the degree to which doctoral students are academically integrated in a department. Twenty doctoral students enrolled in the mathematics doctoral program at the University of California, Berkeley, were interviewed regarding factors relating to academic integration. In relation to women doctoral students, the findings suggest that they did not feel academically integrated in the department and were, therefore, less likely to perceive themselves as "authentic" students compared to their male domestic and international counterparts.

Author Last Name: Earl-Novell
Author First Name: Sarah L.
Publication Date: 2006
Page Numbers: 65-77
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 1
Source: Begell House

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Faculty Student Interaction](#)

A Hand Up is a Hand-Down Must for Young Women Entering the Field of Science

Resource Title: A Hand Up is a Hand-Down Must for Young Women Entering the Field of Science

Description/Annotation: This article summarizes "A Hand Up, Women Mentoring Women in Science", a 500-plus page compendium that offers assistance to young women entering careers in the science and technology fields and sustenance for those who support them. The book is written for young women considering a career in the sciences as well as for anyone established in her or his career who wants to reach out to assist the next generation of female scientists.

Author Last Name: DeWall

Author First Name: Marily

Publication Date: 2006, Dec

Page Numbers: 397-398

Publication Title: Journal of Science Education and Technology

Volume: 15

Issue: 5-6

Source: SpringerLink

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Professional Development](#) [Educational](#)
[Factors](#) » [Retention](#)

A Historical View of Subgroup Performance Differences on the SAT Reasoning Test

Resource Title: A Historical View of Subgroup Performance Differences on the SAT Reasoning Test

Description/Annotation: This 54-page report discusses differences in performance on the SAT reasoning portion of the SAT college-entrance exam by subgroups of the total test takers. Some of the subgroup differences on which the document reports are: gender differences, language differences, racial/ethnic differences, and socioeconomic differences.

Author Last Name: Kobrin

Author First Name: Jennifer L.

Additional Author: Sathy

: Viji

Additional Author: Shaw

: Emily J.

Publisher: College Board

Publisher Location: New York

Publication Date: 2007

Page Numbers: 54

Publication Title: College Board Research Report No. 2006-5

Source: College Board

Source Type: Full Text, Abstract

Resource Type Categories: Data and Statistics » Reports Topical Categories: Cultural Influences Educational Factors Cultural Influences » Gender Diversity Educational Factors » Stereotype Threat on Testing

A History of Funding for Women's Programs at the National Science Foundation: From Individual Powre Approaches to the Advance of Institutional Approaches

Resource Title: A History of Funding for Women's Programs at the National Science Foundation: From Individual Powre Approaches to the Advance of Institutional Approaches

Description/Annotation: This paper discusses the history of the National Science Foundation's funding of women programs. Programs established in the 1980s such as Research Opportunities for Women, Visiting Professorships for Women, Graduate Fellowships for Women, and Career Advancement Awards provided support to individual women for their research. In the 1990s, the NSF also began to focus on systemic initiatives, creating the Program for Women and Girls, although it continued to address the problem through support of individual researchers in the newly created Professional Opportunities for Women in Research and Education (POWRE) initiative. The responses from more than 400 awardees during the 4 years of POWRE provide insights into the current issues these women perceive surrounding their grants, funding, and interactions with NSF bureaucracy and staff members.

Author Last Name: Rosser
Author First Name: Sue V.
Additional Author: Lane
: Eliesh O'Neil
Publication Date: 2002
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[Government](#)

A Large Scale Analysis of First-Year Engineering Student Essays on Engineering Interests

Resource Title: A Large Scale Analysis of First-Year Engineering Student Essays on Engineering Interests

Description/Annotation: This research paper summarizes a study at the University of Notre Dame in which students in the Introduction to Engineering Systems course were asked to answer the following question:

“Engineering is a very broad field of study. What is it about engineering that interests you?” The essay responses of 163 students were reviewed by two engineering education researchers. The types of responses varied, but many recurring themes emerged, including math or science interest or ability, enjoyment of problem solving, a desire to impact the world in a positive way, preparation for another professional field, among others. The full report is available in PDF format.

Author Last Name: Meyers
Author First Name: Kerry
Additional Author: Mertz
: Benjamin
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2011, Jun
Page Numbers: 16
Publication Title: 2011 ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A League of Their Own: Do Single-Sex Schools Increase Girls' Participation in the Physical Sciences?

Resource Title: A League of Their Own: Do Single-Sex Schools Increase Girls' Participation in the Physical Sciences?

Description/Annotation: This 13-page article analyzes whether women may benefit more from single-sex education or coeducation. The article presents a study which surveyed 548 U.S. high-school boys and girls from single-sex and coeducational high-schools from the Midwest. Half of the participants completed a mathematics test under stereotype threat (ST) condition and half under no threat condition. Although girls in single-sex schools had higher achievement motive and

self-esteem than those in coeducational schools, they were not more likely to pursue STEM careers. Overall, students in single-sex schools outperformed students from coeducational schools on the math test. Girls' math performance was significantly higher in the ST condition than in the no threat condition.

Author Last Name: Cherney
Author First Name: Isabelle D.
Additional Author: Campbell
:
Kaitlin L.
Publisher: Springer
Publication Date: 2011, Nov
Page Numbers: 712-724
Publication Title: Sex Roles
Volume: 65
Issue: 9-10
Source: SpringerLink
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Literature Review on the Under-representation of Women in Undergraduate Engineering: Ability, Self-Efficacy, and the "Chilly Climate"

Resource Title: A Literature Review on the Under-representation of Women in Undergraduate Engineering: Ability, Self-Efficacy, and the "Chilly Climate"

Description/Annotation: This literature review focuses on women's underrepresentation in undergraduate science, mathematics, and engineering (SME). This review examines three factors which are among the best understood and considered most important: ability, self-efficacy, and discrimination.

Author Last Name: Malicky

Author First Name: David
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Longitudinal Study of Engineering Student Performance and Retention. III. Gender Differences in Student Performance and Attitudes

Resource Title: A Longitudinal Study of Engineering Student Performance and Retention. III. Gender Differences in Student Performance and Attitudes

Description/Annotation: This seven page report details the policies, procedures, assignments and classroom activities with an emphasis on active and collaborative methods in an undergraduate Chemical Engineering classroom.

Author Last Name: Felder

Author First Name: Richard

Additional Author: Felder

: Gary

Additional Author: Mauney

: Meredith

Additional Author: Hamrin

: Charles

Additional Author: Dietz

: E. Jacquelin

Publication Date: 1995, Jun

Page Numbers: 151-163
Publication Title: Journal of Engineering Education
Volume: 84
Issue: 2
Source: NCSU
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction Educational Factors](#) » [Retention](#)

A Longitudinal Study of Engineering Student Performance and Retention: IV. Instructional Methods and Student Responses to Them

Resource Title: A Longitudinal Study of Engineering Student Performance and Retention: IV. Instructional Methods and Student Responses to Them

Description/Annotation: This 13 page report presents results of a longitudinal study of male and female students in Chemical Engineering using the Learning and Study Strategies Inventory (LASSI). Results showed that female students began in Chemical Engineering with higher expectations for themselves, but by the midpoint of their first course, their expectations were lower, which persisted through the rest of the undergraduate experience. Women were more likely than men to attribute poor performance to themselves. Recommendations to achieve gender equity in engineering are presented.

Author Last Name: Felder
Author First Name: Richard
Publication Date: 1995, Oct
Page Numbers: 361-367
Publication Title: Journal of Engineering Education
Volume: 84
Issue: 4

Source: NCSU
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Pedagogy & Instruction Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Low-Cost Approach to the Retention of Undergraduate Women Engineering and Science Students

Resource Title: A Low-Cost Approach to the Retention of Undergraduate Women Engineering and Science Students

Description/Annotation: This paper describes an initiative at the University of Detroit Mercy to establish a formal support mechanism for women engineering and science majors. This program utilizes existing resources inside the university, including faculty, undergraduate and graduate students, and residence life and other student life staff.

Author Last Name: McDowell

Author First Name: Jeffery

Additional Author: Yost

: Sandra A.

Publication Date: 1998

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Educational Factors](#) » [Retention](#)

A Matter of Confidence: Gender Differences in Attitudes Toward Engaging in Lab and Course Work in Undergraduate Engineering

Resource Title: A Matter of Confidence: Gender Differences in Attitudes Toward Engaging in Lab and Course Work in Undergraduate Engineering

Description/Annotation: This paper discusses two-phase study investigating gender differences in undergraduates' experiences in a fluid mechanics course as well as the relationship between experiential factors and student performance in that course. One hundred forty-seven students at a Midwestern research university completed questionnaires related to course experience and perceived engagement. Data were also collected on final grade for 89 students in the second round of data collection. Relative to men, women reported less confidence that they could avoid mistakes in the lab, less experience with mechanical items, less perceived ability in engineering relative to classmates, and less perceived skill in tasks requiring navigation or maneuvering through space. Feelings of engagement were related to grade, but no gender differences were found in either engagement or grade.

Author Last Name: Micari

Author First Name: Marina

Additional Author: Pazos

: Pilar

Additional Author: Hartmann

: Mitra J.Z.

Publication Date: 2007

Page Numbers: 279-293

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 3

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Measure of Equity: Women's Progress in Higher Education

Resource Title: A Measure of Equity: Women's Progress in Higher Education

Description/Annotation: 2009 report from AAC&U summarizes the most current data on women and gender equity in higher education.

Author Last Name: Touchton

Author First Name: July

Additional Author: Campbell

: Kathryn Peltier

Additional Author: Musil

: Caryn McTighe

Publisher: Association of American Colleges and Universities

Publisher Location: Washington, D.C.

Publication Date: 2009

Publication Title: A Measure of Equity: Women's Progress in Higher Education

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

A Mentoring Program for Female and Minority Faculty Members in the Sciences and Engineering: Effectiveness and Status after 9 Years

Resource Title: A Mentoring Program for Female and Minority Faculty Members in the Sciences and Engineering: Effectiveness and Status after 9 Years

Description/Annotation: Article describing a mentoring program at Kansas State University developed to provide funds and mentoring to tenure-

track women and minority faculty. Funds were originally provided from the Alfred P. Sloan Foundation, and Kansas State made the commitment to continue funding for this program once the initial four years were completed. Eligibility, requirements, and effectiveness are all measured and long term outcomes discussed.

Author Last Name: Montelone
Author First Name: Beth A.
Additional Author: Dyer
:
Additional Author: Ruth A.
Additional Author: Takemoto
:
Publisher: Dolores J. Begell House
Publisher Location: Redding, CT
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 3, 4
Source: Begell House
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

A Meta-Analysis of National Research: Effect of Teaching Strategies on Student Achievement in Science in the United States

Resource Title: A Meta-Analysis of National Research: Effect of Teaching Strategies on Student Achievement in Science in the United States

Description/Annotation: This 25-page paper reports findings of a meta-analysis of educational research in science published from 1980 to 2004 to identify important teaching strategies in educational research, including questioning strategies, manipulation strategies,

enhanced material strategies, assessment strategies, inquiry strategies, enhanced context strategies, instructional technology strategies, and collaborative learning strategies. The purpose of the study was to assess and provide a body of empirical support for effective teaching strategies. The research suggested that enhanced context strategies (teaching that uses students' previous experience and interests) had the largest measured body of support, followed by collaborative learning strategies and inquiry strategies.

Author Last Name: Schroeder
Author First Name: Carolyn M.
Additional Author: Scott
: Timothy P.
Additional Author: Tolson
: Homer
Additional Author: Huang
: Tse-Yang
Additional Author: Lee
: Yi-Hsuan
Publication Date: 2007
Page Numbers: 1436-1460
Publication Title: Journal of Research in Science Teaching
Volume: 44
Issue: 10
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

A Model Healthcare and Engineering Outreach Program for Middle School Students

Resource Title: A Model Healthcare and Engineering Outreach Program for Middle School Students

Description/Annotation: This paper from the 2012 WEPAN National Conference describes the structure and design of the “Engineering for Diabetes and Healthcare” session, part of Purdue University's Innovation to Reality after-school outreach program that provides middle school students the opportunity to learn about engineering through themed sessions. The “Engineering for Diabetes and Healthcare” session is presented and described as a model that practitioners can easily replicate and/or adapt for implementation in similar programs. The full paper is available in PDF format.

Author Last Name: Wiener

Author First Name: M. Julia

Additional Author: Rundell

: Ann

Additional Author: Groh

: Jennifer L.

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) Educational Factors » [Informal Academic Preparation](#)

A Model of Success: The Model Institutions for Excellence Program’s Successful Leadership in STEM Education

Resource Title: A Model of Success: The Model Institutions for Excellence Program’s Successful Leadership in STEM Education

Description/Annotation: This 68 page report details the Models for Institutional Excellence (MIE) program to increase graduates in the STEM disciplines. The descriptions of each program allows replication at other institutions. The emphasis is on policy which can be implemented at the state or Federal levels.

Author Last Name: IHEP
Publisher: Institute for Higher Education Policy
Publication Date: 2007, Apr
Page Numbers: 1-68
Source: IHEP
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Modest Manifesto for Shattering the Glass Ceiling

Resource Title: A Modest Manifesto for Shattering the Glass Ceiling
Description/Annotation: The authors of this article state that gender discrimination has become so ingrained it is difficult to identify. Instead of thinking we can find these practices easily enough to do away with them, the authors suggest that the key to success is small wins. They outline common ideas that do not work, and outline small wins that can be effective. Written for industry leaders who want to conquer gender discrimination.

Author Last Name: Meyerson
Author First Name: Debra E.
Additional Author: Fletcher
: Joyce K.
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2000
Publication Title: Harvard Business Review
Volume: 78
Issue: 1
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

A Multi-Pronged Approach to Address the IT Gender Gap

Resource Title:	A Multi-Pronged Approach to Address the IT Gender Gap
Description/Annotation:	This paper describes the multi-pronged approach employed by the Computer and Information Technology department at Purdue University. It shares the positive and negative results of the activities undertaken by various groups and provides the impact of these programs on each other.
Author Last Name:	Mariga
Author First Name:	Julie
Additional Author:	Harriger
:	Alka
Publication Date:	2007
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

A multidisciplinary look at the computing disciplines

Resource Title:	A multidisciplinary look at the computing disciplines
Description/Annotation:	These proceedings of the 37th SIGCSE technical symposium on computer science education presents a multi-disciplinary view of research being conducted in the computing disciplines. Panel members provide first-year study insights as well as give psychological perspectives that professionals in the computing

disciplines will find interesting and useful. Funded by NSF GSE under award #0332780.

Author Last Name: Lopez
Author First Name: Antonio M.
Additional Author: Lent
:
Additional Author: Lopez
:
Additional Author: Constantine
:
Additional Author: Madonna G.
Publication Date: 2006
Page Numbers: 264-265
Publication Title: Proceeding of the 37th SIGCSE Technical Symposium on Computer Science Education
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Publications by Funder Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

A Multiple Regression Analysis of the Factors That Affect Male/Female Enrollment/Retention in Electronics and Computer Engineering Technology Programs at a For-Profit Institution

Resource Title: A Multiple Regression Analysis of the Factors That Affect Male/Female Enrollment/Retention in Electronics and Computer Engineering Technology Programs at a For-Profit Institution

Description/Annotation: The objective of this paper was to explore how well various factors predict satisfaction with the electronics programs at a for-profit institution. Factors examined include: the combination of self-confidence; self-efficacy; approachability, concern, and

fairness of the electronics professors; pre-college mathematics/science interest and grades; years of mathematics/science in high school; parents' education; professors' use of teamwork; pre-college encouragement; pre-college consideration to apply for a career-oriented university; household income; genders of students; and program levels. Surveys were administered to 576 students in electronics programs at two of the for-profit institution's campuses in the fall 2004 trimester. The findings were generally consistent with the previous research that self-confidence, positive influence of professors/advisors, and influence of STEM courses are positively correlated with persistence in STEM programs.

Author Last Name: Agajanian
Author First Name: Aram
Additional Author: Timpson
:
Additional Author: Morgan
:
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A National Analysis of Minorities in Science and Engineering Faculties at Research Universities

Resource Title: A National Analysis of Minorities in Science and Engineering Faculties at Research Universities

Description/Annotation: A demographic analysis of tenure and tenure track faculty at the top 100 departments of science and engineering. Under representation of women and minorities remains a problem, and this report examines the statistics and draws conclusions about the

preparedness of the United States talent pool and pipeline for critical necessary faculty in the science and engineering fields. For academics and industry.

Author Last Name: Nelson
Author First Name: Donna J.
Additional Author: Brammer
: Christopher N.
Additional Author: Rhoads
: Heather
Publisher: University of Oklahoma
Publisher Location: Norman, OK
Publication Date: 2007, Oct
Page Numbers: 1-53
Source: University of Oklahoma, Department of Chemistry and Biochemistry
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Tenure Policies & Practices](#)

A new approach to increasing diversity in engineering at the example of women in engineering

Resource Title: A new approach to increasing diversity in engineering at the example of women in engineering

Description/Annotation: A new initiative to incorporate diversity issues into the common engineering curriculum at the University of Wollongong (UoW) in Australia is outlined and the effect on student awareness quantified. The diversity issues were illustrated at the example of women in engineering seeing that the numbers of women in engineering have dropped drastically over the last five years at UoW.

Author Last Name: Schafer
Author First Name: AI

Publication Date: 2006
Page Numbers: 661-671
Publication Title: European Journal of Engineering Education
Volume: 31
Source: CIRTLL
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#)
» [Gender Diversity](#)

A New Look at Gender Equity Professional Development for Secondary Science/Mathematics Teachers and Counselors

Resource Title: A New Look at Gender Equity Professional Development for Secondary Science/Mathematics Teachers and Counselors

Description/Annotation: This paper discusses a gender equity training workshop, part of the WISE Investments (WI) project. Authors present the agenda for the successful three-hour workshop in two segments, the gender equity assessment tool, the guidelines for examining gender bias in textbooks, the interaction case study, and the classroom strategies to avoid bias and to promote gender equity in the classroom. Additionally, feedback from the WI participants on this training is discussed.

Author Last Name: Labrie

Author First Name: Arlisa M.

Additional Author: Lemanowski

: Vivian L.

Additional Author: Smiley

: Bettie A.

Additional Author: Yeziarski

: Ellen J.

Additional Author: Baker

: Dale R.
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Professional Development](#)

A NSF-Supported S-STEM Scholarship Program for Recruitment and Retention of Underrepresented Ethnic and Women Students in Engineering

Resource Title: A NSF-Supported S-STEM Scholarship Program for Recruitment and Retention of Underrepresented Ethnic and Women Students in Engineering

Description/Annotation: This paper describes a scholarship project to enhance recruitment of underrepresented ethnic and women undergraduate students in engineering. The objective is to use financial aid to attract these populations and provide an academic support environment that will assist in completion of their baccalaureate engineering degree while preparing them for graduation school. The paper describes the implementation of the project and the evaluation results from the first year of the project. Funded by NSF SSTEM under award #0630990.

Author Last Name: Kukreti
Author First Name: Anant
Additional Author: Simonson
: Kenneth
Additional Author: Johnson
: Kathleen
Additional Author: Evans
: Latiera
Publication Date: 2009

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-DUE-SSTEM Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Pilot Study: On Exploring Twitter as a Data Collection Method for Use in an Ethnographic Study of 40 Young Girls Who Aspire to Become Women Engineers

Resource Title: A Pilot Study: On Exploring Twitter as a Data Collection Method for Use in an Ethnographic Study of 40 Young Girls Who Aspire to Become Women Engineers

Description/Annotation: Despite references for using Twitter to create ethnographies, there is yet no formal research on evaluating its use in formal research. This paper is a preliminary evaluation of Twitter as a comparable method to interactive journal writing in preparation for use in a proposed longitudinal study involving 40 young girls.

Author Last Name: Gossage

Author First Name: Lily G.

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Pipeline to Recruit Women into Engineering

Resource Title: A Pipeline to Recruit Women into Engineering

Description/Annotation: This conference paper describes The Women in Applied Science and Engineering (WISE) Program, housed in the College of Engineering and Applied Sciences (CEAS), at Arizona State University. WISE has made strides to develop a recruitment pipeline to encourage young women to pursue careers in engineering and construction. The WISE Program has five major outreach components: pre-middle school; middle school; high school; transition to college; and pre-college teachers/counselors, each of which are described in this paper.

Author Last Name: Blaisdell

Author First Name: Stephanie L.

Additional Author: Anderson-Rowland

: Mary R.

Publication Date: 1997

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Retention Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

A Plan to Retain Women Students in an Electrical Engineering Technology Program

Resource Title: A Plan to Retain Women Students in an Electrical Engineering Technology Program

Description/Annotation: This paper discusses an innovative plan developed to secure the retention of women students in a four-year Electrical Engineering Technology program. The program aims to recruit six to ten women and move them as a group through the complete program. Bolstering confidence levels, developing hands-on skills, and forming coping strategies are all addressed in unique and innovative ways. The thread that runs through the various components of the program is a group-based support network that moves with and coexists with the real-world demand of a technical environment.

Author Last Name: Goldberg
Author First Name: Stephanie
Publication Date: 1998
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#)[Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Planning Guide to New Extension Services

Resource Title: A Planning Guide to New Extension Services
Description/Annotation: A step by step guide to designing a new extension service, which is a type of project funded by the program Research on Gender in Science and Engineering at the National Science Foundation. Draws on lessons learned by nine projects funded since 2005. Describes a model for the diffusion of innovations in education.
Author Last Name: Sevo
Author First Name: Ruta
Additional Author: Chubin
: Daryl E.
Publisher: American Association for the Advancement of Science
Publication Date: 2011
Page Numbers: 44
Source: AAAS
Source Type: Full text, Hardcopy available fro sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

A poisoned chalice? Why UK women engineering and technology students may receive more 'help' than their male peers

Resource Title:	A poisoned chalice? Why UK women engineering and technology students may receive more 'help' than their male peers
Description/Annotation:	This paper explores women's experiences of higher education in engineering and technology, focusing particularly on the gendered help and support women were found to receive, as well as possible causes and consequences of this behavior.
Author Last Name:	Powell
Author First Name:	Abigail
Additional Author:	Dainty
:	Andrew
Additional Author:	Bagilhole
:	Barbara
Publication Date:	2011
Page Numbers:	585-599
Publication Title:	Gender and Education
Volume:	23
Issue:	5
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

A Profile of Mexican American, Puerto Rican, and Other Hispanic STEM Doctorates: 1983 To 1997

Resource Title:	A Profile of Mexican American, Puerto Rican, and Other Hispanic STEM Doctorates: 1983 To 1997
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Description/Annotation: This article describes the characteristics of Hispanic U. S. citizens who earned doctoral degrees in science, technology, engineering, and mathematics (STEM) from institutions in the United States between 1983 and 1997. The data on this population were disaggregated by gender and by Hispanic subgroup (i.e., Mexican American, Puerto Rican and other Hispanic). In addition, this research identified and ranked the doctorate-granting institutions according to the absolute number of STEM doctoral degrees they granted to Hispanics during the 15-year period of the study. The results indicate that there are differences among the Hispanic subgroups in this study.

Author Last Name: Quintana-Baker

Author First Name: Maricel

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

A Qatari Perspective on Women in the Engineering Pipeline: An Exploratory Study

Resource Title: A Qatari Perspective on Women in the Engineering Pipeline: An Exploratory Study

Description/Annotation: This article aims to unveil the barriers to progress of women in engineering, tracking the performance and the emerging trend of success at the undergraduate level of women in engineering in a different cultural dimension. Secondary research, particularly statistical data of female undergraduate engineering students at Qatar University (QU), is used in this study. Findings show that the booming economic development and access to modern education are the key drivers that change the position of women in Qatari society.

Author Last Name: Sulaiman
Author First Name: Noor Fauziah
Additional Author: AlMuftah
:
Publication Date: 2010, Oct
Page Numbers: 507-517
Publication Title: European Journal of Engineering Education
Volume: 35
Issue: 5
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) »
[Retention](#)

A Quarter Century of Women and Minorities in Engineering at Northwestern University

Resource Title: A Quarter Century of Women and Minorities in Engineering at Northwestern University

Description/Annotation: This paper is a review of over twenty-five years of experience with women and minority students in engineering at Northwestern University offered in an anecdotal mode. Authors follow the continuous effort from 1970 to the present to increase the numbers of women and minority students entering and graduating in engineering at Northwestern.

Author Last Name: Brazelton
Author First Name: William T.
Publication Date: 1996
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Report on the Status of Women Faculty in the Schools of Science and Engineering at MIT, 2011

Resource Title:	A Report on the Status of Women Faculty in the Schools of Science and Engineering at MIT, 2011
Description/Annotation:	Follow-up to MIT studies in 1999 and 2001 addressing gender equity issues for science and engineering female faculty. Study interviewed junior untenured women, mid-level tenured and untenured women and senior women tenured at MIT in 1999. Report discusses positive institutional changes as well as raising current areas for improvement.
Author Last Name:	Faculty Committees under Susan Hockfield, MIT President
Publisher:	Massachusetts Institute of Technology
Publisher Location:	MA
Publication Date:	2011
Page Numbers:	32
Source:	MIT
Source Type:	Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Tenure Policies & Practices](#)

A research and mentoring program for undergraduate women in computer science

Resource Title:	A research and mentoring program for undergraduate women in computer science
Description/Annotation:	This paper describes a new program for female undergraduate computer science students. The program uses recognized strategies for engaging women in computer science. It includes multi-faceted mentoring, community building activities, and a

research program with significant educational components. The research component gives women an opportunity to work in research teams under the direction of a female faculty member who serves as role model. This paper describes the program and changes that have been made based on what was learned during the first year.

Author Last Name: Doerschuk
Author First Name: P.
Publication Date: 2004
Page Numbers: S2H 7-12
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Career Factors](#) » [Mentoring](#)

A Shortage of Technology Job Candidates and an Abundance of Women in the Workplace: Why the Dilemma?

Resource Title: A Shortage of Technology Job Candidates and an Abundance of Women in the Workplace: Why the Dilemma?

Description/Annotation: This paper explores the fact that although there are plenty of women in the general workforce, they do not have the technical skills to thrive in the new technology-driven economy. According to research, facing this shortage of workers means that the nation cannot remain competitive in the global marketplace. This topic is discussed in depth and suggestions and recommendations are offered.

Author Last Name: Davis
Author First Name: Beverly
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Retention](#)

A Six-year Longitudinal Study of Undergraduate Women in Engineering and Science

Resource Title: A Six-year Longitudinal Study of Undergraduate Women in Engineering and Science

Description/Annotation: The Women in Engineering (WIE) Initiative at the University of Washington is conducting a longitudinal study of 600 undergraduate women pursuing degrees in science or engineering. The objectives of this study are to: (a) determine a more accurate measure of retention by tracking individual students through their science and engineering academic career; (b) examine the factors affecting retention of females in science and engineering; (c) increase the retention rates of female students pursuing degrees in science and engineering by providing interventions for the students themselves, primarily during the freshman and sophomore years which are critical attrition points; and (d) report these factors to the dean and departments involved for consideration in policy development.

Author Last Name: Brainard
Author First Name: Suzanne J.
Additional Author: Carlin
: Linda
Publication Date: 1997
Publication Title: Frontiers in Education Conference
Source: Frontiers in Education
Database Name: Posted with permission

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Social-Cognitive Framework for Pedagogical Agents as Learning Companions

Resource Title:	A Social-Cognitive Framework for Pedagogical Agents as Learning Companions
Description/Annotation:	The benefits of peer interaction for learning and motivation in classrooms have been broadly demonstrated through empirical studies. Hence, it would be valuable if computer-based environments could support a mechanism for a peer interaction. Though no claim of peer equivalence is made, pedagogical agents as learning companions (PALs)—animated digital characters functioning to simulate human-peer-like interaction—might provide an opportunity to simulate such social interaction in computer-based learning.
Author Last Name:	Kim
Author First Name:	Yanghee
Additional Author:	Baylor
:	Amy L.
Publisher:	Springer Boston
Publication Date:	2006
Page Numbers:	569-596
Publication Title:	Educational Technology Research and Development
Volume:	54
Issue:	6
Source:	SpringerLink
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

A study in engaging female students in computer science using role models

Resource Title: A study in engaging female students in computer science using role models

Description/Annotation: This paper describes a campaign that distributed a 60-page booklet on women in computing to UK secondary schools. The conference paper analyzes the initial response from teachers, and draws some general conclusions from the project. Teachers expressed strong enthusiasm for the booklet, and also report the desire for recruitment and retention of girls in their computing programs.

Author Last Name: Black

Author First Name: Jonathan

Additional Author: Curzon

: Paul

Additional Author: Myketiak

: Chrystie

Additional Author: McOwan

: Peter W.

Publisher: ACM

Publisher Location: New York, NY

Publication Date: 2011

Page Numbers: 63-67

Publication Title: ITiCSE '11

Volume: Proceedings of the 16th Annual Joint Conference on Innovation and Technology in Computer Science Education

Source: ACM

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

A Study of Barriers to Women in Undergraduate Computer Science

Resource Title: A Study of Barriers to Women in Undergraduate Computer Science

Description/Annotation: This study explores the low female enrollment within Computer Science at one campus: SUNY Genesco. Possible reasons are explored, but no definite answers emerge.

Author Last Name: Scragg

Author First Name: Greg

Additional Author: Smith

: Jesse

Publisher: Proceedings of the twenty-ninth SIGCSE technical symposium on Computer Science education

Publication Date: 1998

Page Numbers: 82-86

Database Name: ACM Portal

Source Type: Abstract, Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Study of Gender Parity: Department Culture from the Students' Perspective

Resource Title: A Study of Gender Parity: Department Culture from the Students' Perspective

Description/Annotation: The School of Industrial Engineering (IE) at the University of Oklahoma (OU) has an unusual trend of gender parity at the undergraduate level. To investigate local factors contributing to the success of IE at OU, researchers interviewed 41 IE majors (23 female) about their background, choices, experiences, and goals, with a semi-structured protocol. Using established qualitative research methods, interview transcript excerpts were examined related to relevant categories. Participants described the cohesive community among the undergraduate majors. As a social networks model would predict, the student-student connections provide emotional support, in particularly strong ways. Funded by NSF GSE under award #0225228.

Author Last Name: Rhoads
Author First Name: Terri Reed
Additional Author: Murphy
:
Additional Author: Trytten
:
Deborah A.
Publication Date: 2005
Publication Title: Frontiers in Education Conference (FIE)
Source: The University of Oklahoma
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

A Study of Women Engineering Students and Time to Completion of First-year Required Courses at Texas A&M University

Resource Title: A Study of Women Engineering Students and Time to Completion of First-year Required Courses at Texas A&M University

Description/Annotation: This paper reports findings on gender that were part of a larger study reviewing time to completion of course work at Texas A&M University that includes the first two semesters of calculus, chemistry, and physics, which are often considered the stumbling points or "barrier courses" to an engineering baccalaureate degree. Texas A&M University terms these courses core body of knowledge (CBK), and statistical analysis was conducted on two cohorts of first-year enrolling engineering students at the institution. Findings indicate that gender is statistically significantly related to completion of CBK with female engineering students completing required courses faster than males. Descriptive analysis indicated that of the five majors studied (chemical, civil, computer, electrical, and mechanical engineering), women completed CBK faster than men, and

African American and Hispanic women completed CBK faster than males of the same ethnicity.

Author Last Name: Kimball
Author First Name: Jorja
Additional Author: Cole
:
Additional Author: Hobson
:
Additional Author: Margaret
Additional Author: Watson
:
Additional Author: Karan
Additional Author: Stanley
:
Christine
Publication Date: 2008
Page Numbers: 67-81
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

A Successful Program for Women Faculty and Graduate Students in Natural Sciences, Mathematics, and Engineering at the University of Nevada, Las Vegas

Resource Title: A Successful Program for Women Faculty and Graduate Students in Natural Sciences, Mathematics, and Engineering at the University of Nevada, Las Vegas

Description/Annotation: This 18-page paper discusses a project in Las Vegas aimed at increased retention and advancement of women faculty in science, engineering, and mathematics, as well as support for women graduate students in science, mathematics, and engineering; evaluates the effectiveness of these types of interventions to increase gender equity in academic science.

Author Last Name: Rees

Author First Name: Margaret N.

Additional Author: Amy
: Penny

Additional Author: Jacobson
: Ellen

Additional Author: Weistrop
: Donna E.

Publication Date: 2000

Page Numbers: 313-330

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 6

Issue: 4

Source: Begell House

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

A Summer Camp Program to Introduce Girls to Opportunities in Engineering

Resource Title: A Summer Camp Program to Introduce Girls to Opportunities in Engineering

Description/Annotation: Profile of Purdue summer camp programs for girls in grades 5-10 with the objective of encouraging girls to study engineering, specifically at Purdue.

Author Last Name: Holloway
Author First Name: Beth
Additional Author: Zurn-Birkhimer
:
Suzanne
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 8
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#)[Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity University Programs](#)

A Survey of Biological and Agricultural Engineering Female Faculty in North America

Resource Title: A Survey of Biological and Agricultural Engineering Female Faculty in North America

Description/Annotation: This paper discusses results of a confidential survey of women faculty in Biological and Agricultural Engineering (BAE) based on personal and academic history, career issues, and opinions and experiences. Researchers' goals were to identify factors that have led to the success of these women faculty, and to make recommendations to better integrate women into all engineering disciplines. Results showed that BAE departments provide a supportive environment, and that the female undergraduate student population is 40% or higher in 65% of the BAE programs. The majority of respondents reported that gender discrimination was not a job issue, and believe that the attraction of women to BAE is due to its emphasis on biological systems, as well as BAE's newness and lack of long-standing stereotypes of male dominance. Recommendations are to increase mentoring at all levels of education and work and to increase networking of female faculty within universities.

Author Last Name: Cauble
Author First Name: Stephanie

Additional Author: Christy
:
Ann
Additional Author: Lima
:
Marybeth
Publication Date: 1999
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

A Systemic Change Model in Engineering Education and Its Relevance for Women

Resource Title: A Systemic Change Model in Engineering Education and Its Relevance for Women

Description/Annotation: This 33-page article presents and analyzes data collected from engineering learning communities at Texas A&M. The learning community model was found to positively impact students, especially women. Retention, progress, and learning were all increased.

Author Last Name: Caso
Author First Name: Rita
Additional Author: Clark
:
Carolyn
Additional Author: Froyd
:
Jeff
Additional Author: Inam
:
Ahmer
Additional Author: Kenimer (et al.)
:
Ann

Publisher: American Society for Engineering Education (ASEE)
Publication Date: 2002
Page Numbers: 1-33
Publication Title: Proceedings of the 2002 American Society for Engineering Education Annual Conference & Exposition
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

A Theme-Based Seminar on Environmental Sustainability Improves Participant Satisfaction in an Undergraduate Summer Research Program

Resource Title: A Theme-Based Seminar on Environmental Sustainability Improves Participant Satisfaction in an Undergraduate Summer Research Program

Description/Annotation: This nine page report presents results demonstrating that the Clarkson University Research Experience for Undergraduates (REU) program increased participants likelihood in attending graduate school in science, engineering or education. In addition, participant satisfaction increased with the addition of a module on environment sustainability.

Author Last Name: Grimberg

Author First Name: Stefan

Additional Author: Langen
:
Tom

Additional Author: Compeau
:
Larry

Additional Author: Powers
:
Susan

Publication Date: 2008, Jan

Page Numbers: 95-103

Publication Title: Journal of Engineering Education

Volume: 97

Issue: 1

Source: Clarkson University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

A Theoretical Basis for Recruitment and Retention Interventions for Women in Engineering

Resource Title: A Theoretical Basis for Recruitment and Retention Interventions for Women in Engineering

Description/Annotation: This paper discusses self-efficacy theory, the basis for the programs offered by the Women in Applied Science and Engineering (WISE) Program at Arizona State University. By way of example, self-efficacy theory informed the program methodology for the Women in Engineering and Technology (WET) Day, an outreach program for community college women interested in engineering. Authors discuss the many advantages to using a theory such as self-efficacy in program development.

Author Last Name: Blaisdell

Author First Name: Stephanie

Additional Author: Cosgrove

: Catherine R.

Publication Date: 1996

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

A Threatening Intellectual Environment: Why Females Are Susceptible to Experiencing Problem-Solving Deficits in the Presence of Males

Resource Title: A Threatening Intellectual Environment: Why Females Are Susceptible to Experiencing Problem-Solving Deficits in the Presence of Males

Description/Annotation: A presentation of two studies exploring whether females experience a performance deficit in math in the presence of males. Findings indicate females performed worse in math in three person groups with one or two males in the group.

Author Last Name: Inzlicht
Author First Name: Michael
Additional Author: Ben-Zeev
:
Talía
Publisher: Association for Psychological Science
Publisher Location: Washington, D.C.
Publication Date: 2000, Sep
Page Numbers: 365-371
Publication Title: Psychological Science
Volume: 11
Issue: 5
Source: Sage
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#)

A Three Year Analysis of the Benefits Accrued by Women Engineering and Science Students who Participated in a Large-Scale E-Mentoring Program

Resource Title: A Three Year Analysis of the Benefits Accrued by Women Engineering and Science Students who Participated in a Large-Scale E-Mentoring Program

Description/Annotation: MentorNet, the E-Mentoring Network for Women in Engineering and Science, leverages technology and draws on the benefits of mentoring to address the underrepresentation of women in engineering, science, math, and technology fields. A multi-institutional, large-scale, structured electronic mentoring (e-mentoring) program, MentorNet pairs women students in engineering, science, math, and technology fields with industry professionals who volunteer as mentors, and supports them through year-long e-mentoring relationships. This paper reports on the most salient benefits accrued for women students based on

three years of evaluation results from the 1998-99, 1999-2000, and 2000-01 program years.

Author Last Name: Single
Author First Name: Peg Boyle
Additional Author: Muller
:
Additional Author: Cunningham
:
Additional Author: Single
:
Additional Author: Richard M.
Additional Author: Carlsen
:
Additional Author: William S.
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring](#)

A Title IX Timeline: The Enforcement of Title IX in Science and Engineering Education

Resource Title: A Title IX Timeline: The Enforcement of Title IX in Science and Engineering Education

Description/Annotation: This 14-page document gives a concise chronology of individual movements designed to lead to university compliance with Title IX to its fullest extent in order to decrease discrimination and improve recruitment and retention of women in the sciences at all levels. Includes highlights of the progress of this implementation since 2000, including movements, policies, and reactions. A good overview of the struggles to fully implement Title IX to benefit science and engineering.

Author Last Name: Sevo

Author First Name: Ruta
Publication Date: 2008
Page Numbers: 1-14
Source: Momox
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept

Resource Title: A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept

Description/Annotation: This report presents the balanced identity design consisting of the theoretical integration of three influences: 1) interest in automatic and implicit cognition, 2) development of the Implicit Association Test (IAT) and 3) social psychology's consistency theory from the 1950s. The IAT is specifically presented for its use in measuring gender self-concept.

Author Last Name: Greenwald
Author First Name: Anthony G.
Additional Author: Banaji
: Mahzarin.R.
Additional Author: Rudman
: Laurie.A.
Additional Author: Farnham
: Shelly.D.
Additional Author: Nosek (et al)
: Brian A.
Publication Date: 2002
Page Numbers: 3-25
Publication Title: Psychological Review

Volume: 109
Issue: 1
Source: University of Washington
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

A university-wide Women in Sciences and Engineering (WISE) program

Resource Title: A university-wide Women in Sciences and Engineering (WISE) program

Description/Annotation: This paper provides a complete description of the activities conducted by the Penn State Women in Science and Engineering (WISE) Institute. The primary purpose of the WISE Institute is to enhance recruitment and retention of female undergraduate and graduate students. The Institute also assists and supports efforts to recruit and retain women in administrative, faculty, and staff positions. The paper also describes the results of a survey conducted by the WISE Institute to assess the effectiveness of its precollege outreach activities.

Author Last Name: Anwar

Author First Name: S.

Additional Author: Acar

: M.A.

Additional Author: Rung

: K.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

A Walk on the Moon: Interdisciplinary, Inquiry-Based Learning Theory into Practice

Resource Title: A Walk on the Moon: Interdisciplinary, Inquiry-Based Learning Theory into Practice

Description/Annotation: This paper discusses and NSF-funded project is entitled FORWARD in SEM which aims to increase the numbers of women and individuals from underrepresented groups in advanced science, engineering and mathematics (SEM) studies and careers, with particular focus is on the bridge between undergraduate and graduate studies in SEM fields. Researchers have developed activities designed to encourage women and students of other underrepresented groups to consider graduate studies, apply to graduate school and, once in, stay in and complete advanced degrees. The project has five activities: a workshop for sophomores and juniors considering graduate school, the interdisciplinary seminar course described here (A Walk on the Moon), a summer research competition for first year graduate students, a mentoring network, and a program for improving Deaf access to SEM careers. The course was implemented for the first time in the first semester of 1999 and was repeated in 2000. Both times the course was offered at George Washington University and Gallaudet concurrently. Funded by NSF RES under award #9714729.

Author Last Name: Mavriplis

Author First Name: Catherine

Additional Author: Heller

: Rachelle S.

Additional Author: Sorensen

: Charlene C.

Additional Author: Snyder

: H. David

Publication Date: 2003

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Curriculum Educational Factors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder

A Warmer Climate for Women in Engineering at the University of Rhode Island

Resource Title: A Warmer Climate for Women in Engineering at the University of Rhode Island

Description/Annotation: The paper describes the positive steps that were taken at University of Rhode Island (URI) to improve the climate for women faculty in STEM fields, and to place these steps within a framework for climate change. The paper starts with an overview of the percentages of women nationally in Engineering, followed by a description of the hostile grievance process that took place at URI. Next is a discussion of pro-active measures that were taken by many communities of faculty on the URI campus, including most recently, those of the ADVANCE grant funded by the National Science Foundation. These measures have been guided by a grounded theory approach to climate change that posits simultaneous change in individuals, interactional contexts, and institutional practices. As a result, URI has recruited a significant percentage of new women faculty in STEM fields in a relatively short time, and is working hard to ensure that they are retained. Funded by NSF ADVANCE under award #0245039 .

Author Last Name: Silver

Author First Name: B.

Additional Author: Boudreaux-Bartels

:

Additional Author: Mederer

:

Additional Author: Pasquerella

:

Additional Author: Peckham

:

Publication Date: 2006
Publication Title: ASEE Conference Proceedings
Source: University of Rhode Island
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Organizational Culture](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

A women and technology program for freshman engineering students

Resource Title: A women and technology program for freshman engineering students

Description/Annotation: In the Fall of 1999, Texas A&M University (TAMU) was selected as a participating university in the Virtual Development Center (VDC) program sponsored by the Institute for Women and Technology (IWT). The intent was that the ideas generated by women and for women through these centers can be realized by a cooperative effort between students and industries. This paper discusses a special section of the Foundations of Engineering course at TAMU which had been created in support of the VDC program. The student teams collaborate with students from other courses, both technical and nontechnical, and at all levels. The result of this multilevel, interdisciplinary interaction was intended to be the design and implementation of idea(s). The classroom environment, interdisciplinary work, and industry interaction gave the students a very positive experience and open their eyes to many and varied engineering issues in ways that are not typically addressed by the curriculum.

Author Last Name: Morgan

Author First Name: J.

Additional Author: Martinez

: D.

Publication Date: 2000

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

A Women in Engineering Seminar Course for First-Year Engineering Students

Resource Title: A Women in Engineering Seminar Course for First-Year Engineering Students

Description/Annotation: This 12-page paper from the 2012 WEPAN National Conference provides an overview of the Purdue University Women in Engineering Seminar course for first-year undergraduates, including course goals, format, and assessment. According to the conference paper, enrolled students are required to attend weekly presentations by invited speakers, to conduct three writing assignments to help them with analyzing and selecting a specific engineering major, and to complete pre- and post-course surveys. The full paper is available in PDF format.

Author Last Name: Groh

Author First Name: Jennifer L.

Additional Author: Holloway

: Beth M.

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-12

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

A World In Motion

Resource Title: A World In Motion
Description/Annotation: The A World In Motion® (AWIM) curriculum joins together teachers, students, and industry volunteers in an exploration of physical science while addressing essential mathematic and scientific concepts and skills.

Web site Link: [Link to Resource](#)

More: Benchmarked to the national standards, each of the AWIM activities incorporate the laws of physics, motion, flight and electronics into age-appropriate hands on activities that reinforce classroom STEM (science, technology, engineering and math) curriculum.

Resources: Resources include:

- Teacher kits available for sale
- Training webinars for teachers and volunteers
- Volunteer resources to set up AWIM programs in schools
- Curricula materials for elementary, middle and high school students

Site Access Details: This site is publicly accessible.

Partners and Funding: SAE International and the support of corporations, foundations, volunteers, and SAE members.

Contact E-mail: awim@sae.org

Last Update Date: June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

A.W.E. (assessing women in engineering) - designing tools for success using collaboration

Resource Title: A.W.E. (assessing women in engineering) - designing tools for success using collaboration

Description/Annotation: This paper describes the "Assessing Women in Engineering" project which uses a unique collaboration between a Women in Engineering (WIE) director and an assessment specialist (AS) to develop exportable assessment instruments and models for Women In Engineering programs nationwide, thus allowing them to assess their program's activities and ultimately provide data for making well-informed evaluation decisions.

Author Last Name: Marra
Author First Name: R.M.
Additional Author: Bogue
:
B.
Publication Date: 2003
Publication Title: Frontiers in Education
Volume: 1
Source: IEEE
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

AAUP Faculty Gender Equity Indicators 2006

Resource Title: AAUP Faculty Gender Equity Indicators 2006
Description/Annotation: 86 page report of gender equity indicators, for individual colleges and universities to illustrate women's progress (or lack thereof) in pursuing academic careers. Indicators include employment status, tenure status, full professor rank, and average salary statistics.
Author Last Name: West
Author First Name: Martha S.
Additional Author: Curtis
:
John W.
Publisher: American Association of University Professors
Publication Date: 2006
Page Numbers: 14
Source: AAUP
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#) [Career Factors](#) » [Tenure Policies & Practices](#)

AAUW Blog

Resource Title: AAUW Blog

Description/Annotation: Blog from AAUW, whose mission is to advance equity for women and girls through advocacy, education, and research. Blog site includes frequent blog postings by multiple authors, AAUW tweets, organizational updates, legislative alerts, a blogroll of other topical blogs, additional AAUW blogs, and links to related organizations.

Author Last Name: AAUW

Publisher: AAUW

Source: AAUW

Source Type: Website

Resource Type Categories: [Website/Portal](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

AAUW Initiative: Send College Women to NCCWSL (National Conference for College Women Student Leaders)

Resource Title: AAUW Initiative: Send College Women to NCCWSL (National Conference for College Women Student Leaders)

Description/Annotation: Interview with Lin Rising, AAUW of Connecticut College/University Relations Officer, on supporting college women in leadership positions. Describes the success of an initiative to sponsor young women in attending the National Conference for College Women Student Leaders. Includes advice on how other AAUW branches can implement similar programs.

Web site Link: [Link to Resource](#)

Site Access Details: The AAUW website is publicly accessible.

Last Update Date: Feb 26, 2014

Resource Type Categories: [Interviews](#)

Academe's Glass Ceiling: Societal, Professional-Organizational, and Institutional Barriers to the Career Advancement of Academic Women

Resource Title:	Academe's Glass Ceiling: Societal, Professional-Organizational, and Institutional Barriers to the Career Advancement of Academic Women
Description/Annotation:	A survey was done of ten national systems of higher education to find out the percentage of women professors. This relationship was compared to the institutional prestige of the universities. The article uses this data to see how the glass ceiling affects academia. For academics and university leadership.
Author Last Name:	Bain
Author First Name:	Olga
Additional Author:	Cummings
:	William
Publisher:	Comparative and International Education Society
Publisher Location:	Chicago, IL
Publication Date:	2000, Nov
Page Numbers:	493-514
Publication Title:	Comparative Education Review
Volume:	44
Issue:	4
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Academic achievement—A view from the top: The Illinois valedictorian project

Resource Title:	Academic achievement—A view from the top: The Illinois valedictorian project
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Description/Annotation: Research report examining 10-year results of the Illinois Valedictorian Project, a program that has followed 81 high-achieving high school valedictorians for 10 years following their high school graduation. Sampling and study design are presented along with the findings from the first 5 years. Academic, attitude, and career outcomes of the group as a whole and various subgroups are considered. Finally comparisons are made concerning gender, race and ethnicity, and career choice.

Author Last Name: Arnold

Author First Name: Karen D.

Publication Date: 1993

Page Numbers: 76

Source: ERIC

Source Type: Abstract, Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Academic Advising Service for Women in Higher Education

Resource Title: Academic Advising Service for Women in Higher Education

Description/Annotation: This 10-page article discusses themes in the literature relating to advising of women in higher education. Topics discussed include the types of women who deserve special attention, the role of an advisor, situations in which advising is helpful for dealing with stressors, and benefits experience by women who entered into advising situations. A good, but brief, overview of the literature on advising for women until 1999.

Author Last Name: Reisinger

Author First Name: Wendy A.

Publication Date: 1999

Page Numbers: 1-10

Source: ERIC

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Academic Climate and Advisor Support Affect the Quality of Women's Experiences in Graduate School

Resource Title:	Academic Climate and Advisor Support Affect the Quality of Women's Experiences in Graduate School
Description/Annotation:	11 page report of university survey of Mechanical Engineering graduate students assessing reasons for decline in enrollment. Root causes reflect recurrent national themes of lack of self-confidence and faculty support for women. Report offers actions taken at the university to address issues.
Author Last Name:	Agogino
Author First Name:	Alice M.
Additional Author:	Buckley
:	Jenni M.
Additional Author:	Lopour
:	Beth
Additional Author:	Sparry
:	Carolyn J.
Publisher:	WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date:	2008
Page Numbers:	11
Source:	WEPAN
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#)[Educational Factors](#)

Academic Employment Decisions and Gender

Resource Title: Academic Employment Decisions and Gender

Description/Annotation: A 20-page report on a study of the reasons for career decisions among academic faculty. The study revealed that reasons for accepting or rejecting offered positions were similar for both men and women, including prestige of the academic institution, compatibility with family needs, and the attractiveness of the terms of the job. Indicates important features that should be stressed about academic positions and institutions to enhance effectiveness at recruitment of future faculty.

Author Last Name: Teevan

Author First Name: James J.

Additional Author: Pepper

: Susan

Additional Author: Pellizzari

: Joseph R.

Publication Date: 2005

Page Numbers: 141-160

Publication Title: Research in Higher Education

Volume: 33

Issue: 2

Database Name: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Retention](#)

Academic Leadership Strategies for Engineering Faculty

Resource Title: Academic Leadership Strategies for Engineering Faculty

Description/Annotation: This article addresses the challenges of attaining tenure for engineering faculty members, mainly in a university that grants doctoral degrees. In the author's opinion, the three main components- research, teaching, and service, can be achieved

even though it may seem difficult. This article is suited for engineering faculty in higher education.

Author Last Name: Narayanan
Author First Name: Ram M.
Publisher: TEMPUS Publications- Dublin Institute of Technology
Publisher Location: Dublin, Ireland
Publication Date: 2003
Page Numbers: 241-251
Publication Title: The International Journal of Engineering Education
Volume: 19
Issue: 2
Source: British Library
Source Type: Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Tenure Policies & Practices](#)

Academic Mothers

Resource Title: Academic Mothers

Description/Annotation: Academic mothers share some freedoms- having access to childcare, having legal rights and protection, but also do not share some freedoms that men academics have. Using the stories of three academic mothers in South Africa as background, the author examines the seemingly opposite traditional traits of intelligent scholar versus emotional nurturer and how they can exist in the same woman. She proposes that in order to make necessary changes, we have to change our conceptualizations about academic characteristics, not simple change structures within organizations. For women and men academics and higher education institutions.

Author Last Name: Pillay
Author First Name: Venitha
Publisher: Trentham Books
Publisher Location: Pretoria, South Africa

Publication Date: 2007, Sep
Page Numbers: 1-206
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception

Accept, AVOID, Resist: How Faculty Members Respond to Bias Against Caregiving...and How Departments Can Help

Resource Title: Accept, AVOID, Resist: How Faculty Members Respond to Bias Against Caregiving...and How Departments Can Help

Description/Annotation: This eight-page article addresses how faculty, male and female, deal with department or institutional biases against caregiving. Some faculty accept bias, and either "opt-out" of the tenure track to prioritize family, or prioritize work above marriage and children. Other faculty avoid bias by hiding their family responsibilities, such as delaying or hiding pregnancies, or mothers or fathers returning to work sooner than desired after the birth of a new child. Finally, some faculty actively resist bias by steadfastly standing up for their personal commitments. Of the many policies that could help eliminate bias, the authors recommend affordable, high-quality child care near the university as the most beneficial to faculty.

Author Last Name: Colbeck
Author First Name: Carol
Additional Author: Drago
: Robert
Publisher: Change
Publication Date: 2005, Nov/Dec
Page Numbers: 10-17
Publication Title: Change
Volume: 37

Issue: 6
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Stereotype Threat](#)

Access to Engineering: A Description and an Evaluation of a Pre-Collegiate Program for Minorities and Women

Resource Title: Access to Engineering: A Description and an Evaluation of a Pre-Collegiate Program for Minorities and Women

Description/Annotation: This paper discusses a natural outreach activity of the Joint Undergraduate Engineering Program called the McDonnell Douglas Access to Engineering Program. The primary purpose of the program is to recruit talented minorities (especially African-Americans) and women to the field of engineering. A major component of the Access to Engineering Program was the pre-collegiate institute for high school juniors and seniors, held during the summer of 1995. This was an intensive, eight-week, all-day program in mathematics and engineering for promising high school students with backgrounds that are under-represented in the field of engineering. The goal of this program was to address the critical need for the enhancement of mathematics skills necessary to ensure a smooth transition from high school mathematics to the rigorous mathematics requirements of a pre-engineering curriculum.

Author Last Name: Shields

Author First Name: Nancy

Additional Author: Grodsky

: H. Richard

Additional Author: Darby

: William P.

Publication Date: 1996

Publication Title: ASEE Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal
Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Access to Financial Capital: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Resource Title: Access to Financial Capital: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Description/Annotation: This 7-page briefing report from the National Center for Women and Information Technology (NCWIT) is part of the Entrepreneurial Report Series. This report provides a summary of research literature on the reasons for gender differences in access to financial capital. According to the report, gender differences in types of funding sought and experiences when seeking funding exist for the most part due to women's concentration in poorly-funded industries, and perhaps due to their lack of technical education and their underrepresentation among investors. The full report is available in PDF format.

Author Last Name: Aspray

Author First Name: William

Additional Author: Cohoon

: J. McGrath

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2007, Feb

Page Numbers: 1-7

Publication Title: National Center for Women and Information Technology Entrepreneurial Series

Source: NCWIT

Source Type: Full Text

Resource Type Categories: Articles/Reports » Literature Reviews Topical Categories: Career Factors Career Factors » Leadership & Management Career Factors » Organizational Culture Career Factors » Professional Development

Accomplishments and Challenges for Women in STEM: Implications for Future Research and Programs

Resource Title:	Accomplishments and Challenges for Women in STEM: Implications for Future Research and Programs
Description/Annotation:	This essay examines the contributions each article in this volume of "Journal of Women and Minorities in Science and Engineering" makes toward developing recruitment and retention programs for women in STEM. Understanding and changing women's underrepresentation in STEM education and careers depends on reliable, rich data. It requires nuanced understanding of who is underrepresented, in which disciplines, and at which career levels. Clarity is also needed about the reasons women leave STEM education and careers, and the factors that help them stay.
Author Last Name:	Johnson
Author First Name:	Angela C.
Publication Date:	2011
Page Numbers:	5-10
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	17
Issue:	1
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

ACES: introducing girls to and building interest in engineering and computer science careers

Resource Title: ACES: introducing girls to and building interest in engineering and computer science careers

Description/Annotation: This paper discusses a program at the University of Tennessee at Chattanooga called Adventures in Computers, Engineering, and Space. This program for middle school girls addresses the gender gap in engineering and computer science. The program emphasizes hands-on engineering and computer activities through participation in a one-week residential summer camp for girls entering seventh and eighth grades, one-day camp follow-up sessions throughout the school year, and fairs conducted at schools and other public and private facilities throughout the local community. This paper provides an overview of the program and a discussion of the lessons learned from the 2001-2002 focus and how these lessons are affecting the design of the 2002 camp and later project activities and proposals. The paper also addresses program assessment, including tracking the program participants, to determine the program's effectiveness at reaching its goals. Funded by NSF GSE under award #0003185.

Author Last Name: Wigal

Author First Name: Cecelia M.

Additional Author: Alp

: Neslihan

Additional Author: McCullough

: Claire

Additional Author: Smullen

: Stephanie

Additional Author: Winters

: Kathy

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal](#)

Achieving Greater Diversity Through Curricular Change

Resource Title:	Achieving Greater Diversity Through Curricular Change
Description/Annotation:	This 31-page book chapter argues that most diversity initiatives are not focusing on where real change needs to be made: the curriculum. Suggestions to change the curriculum include increasing social relevance, addressing diversity, streamlining the curriculum, reducing prerequisites, and increasing engineering education at the community college level. This chapter could be highly useful to those in positions to implement such curricular changes.
Author Last Name:	Busch-Vishniac
Author First Name:	Ilene
Additional Author:	Jarosz
:	Jeffery
Publisher:	Edward Elgar Publishing
Publisher Location:	Northampton, MA
Publication Date:	2007, Sep 7
Page Numbers:	245-275
Publication Title:	Women and Minorities in Science, Technology, Engineering and Mathematics: Upping the Numbers
Source:	Edwar Elgar Publishing
Source Type:	Partial text

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Achieving Parity of the Sexes at the Undergraduate Level: A Study of Success

Resource Title:	Achieving Parity of the Sexes at the Undergraduate Level: A Study of Success
Description/Annotation:	Ethnographic research project at the University of Oklahoma to understand how the Industrial Engineering program organically

achieved gender parity, having 55% women enrolled in this major. Success factors include recruiting by female faculty and upper class students, stressing aspects of the discipline to both pre-college and new undergraduate students.

Author Last Name: Murphy
Author First Name: Teri J.
Additional Author: Shehab
:
Randa L.
Additional Author: Reed-Rhoads
:
Teri
Additional Author: Foor
:
Cindy E.
Additional Author: Harris (et al.)
:
Betty J.
Publisher: American Society for Engineering Education (ASEE)
Publisher Location: Washington, D.C.
Publication Date: 2007, Jul
Page Numbers: 241-252
Publication Title: Journal of Engineering Education
Volume: 96
Issue: 3
Source: University of Oklahoma
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Achieving XXcellence in Science: Role of Professional Societies in Advancing Women in Science: Proceedings of a Workshop, AXXS 2002

Resource Title: Achieving XXcellence in Science: Role of Professional Societies in Advancing Women in Science: Proceedings of a Workshop, AXXS 2002

Description/Annotation: This report is the proceedings of a July 2002 workshop of the Committee on AXXS 2002: A Workshop for Clinical Societies to Enhance Women's Contributions to Science and their Profession. The workshop gathered representatives of clinical societies and identified ways to enhance the participation of women scientists in the clinical research workforce. This workshop was a follow-up to the AXXS 1999 conference sponsored by the Office of Research on Women's Health (ORWH) at the National Institutes of Health (NIH), which focused on how scientific societies could contribute to the enhancement of women's careers in science.

Author Last Name: Shaywitz (ed.)

Author First Name: Sally

Additional Author: Hahm (ed.)

: Jong-on

Additional Author: Committee on Women in Science and Engineering

Additional Author: National Research Council

Publisher: National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2004

Page Numbers: 112

Source: National Academies Press

Source Type: Partial text, Table of Contents, Available for sale

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Career Factors » Hiring Practices Individual Beliefs and Behaviors Career
Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

**ACT High School Profile Report: HS Graduating Class
2005: HS Graduating Class National Report (Code
990-000)**

Resource Title: ACT High School Profile Report: HS Graduating Class 2005: HS Graduating Class National Report (Code 990-000)

Description/Annotation: This 24-page paper contains data and statistics compiled from the ACT test scores of the 2005 high school graduating class. The data is grouped according to various categories, including sex, race/ethnicity, planned major, and high school GPA. A broad report on the performance of the 2005 graduating class with respect to a variety of factors.

Author Last Name: ACT Inc.

Publisher: ACT Inc.

Publisher Location: Iowa City, IA

Publication Date: 2005

Page Numbers: 24

Source: ACT Inc.

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

ACT High School Profile Report: The Graduating Class of 2006: National

Resource Title: ACT High School Profile Report: The Graduating Class of 2006: National

Description/Annotation: This 30-page report contains data compiled from the ACT scores of the 2006 high school graduating class. The data is grouped by a variety of categories, including 5-year trends, overall score distributions for the ACT sections, race/ethnicity of ACT takers, scores by gender, and college readiness by race/ethnicity. A good overview of the data from the ACT, which includes a science and mathematics section, and variations in performance by personal characteristics.

Author Last Name: ACT Inc.

Publisher: ACT Inc.

Publisher Location: Iowa City, IA

Publication Date: 2006

Page Numbers: 30
Source: ACT Inc.
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

ACT High School Profile Report: The Graduating Class of 2007: National

Resource Title: ACT High School Profile Report: The Graduating Class of 2007: National

Description/Annotation: This 32-page report contains data compiled from the ACT college entrance exam scores of the 2007 high school graduating class. The report consists of data on academic achievement, college readiness, career and educational aspirations, and optional writing test results. A good overview of the data from the ACT, which includes a science and mathematics section, and variations in performance by personal characteristics such as gender and race/ethnicity.

Author Last Name: ACT Inc.

Publisher: ACT Inc.

Publisher Location: Iowa City, IA

Publication Date: 2007

Page Numbers: 32

Source: ACT Inc.

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Acting Out: Using Theater to Discuss Career Struggles of Women Faculty in Engineering

Resource Title: Acting Out: Using Theater to Discuss Career Struggles of Women Faculty in Engineering

Description/Annotation: In a workshop for untenured women faculty in engineering, participatory theater exercises were used to build community and facilitate a discussion among participants about their career struggles. Two key differences between participatory theater-based discussions and traditional round table discussions are the physical enactment of personal experiences and the collective brainstorming for (and enactment of) problem-solving strategies. At the workshop, the theater exercises built and strengthened a caring community for the participants, helped the participants recognize shared struggles and concerns, and had obvious immediate and potential longer-term positive impacts on participants. Thus, participatory theater may be a novel and useful strategy for women in engineering to discuss personal and professional concerns, find community support around and develop new ways of working through those concerns.

Author Last Name: Cheler

Author First Name: Naomi C.

Additional Author: Hall

: Leslyn

Additional Author: Chesler

: Mark A.

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Addressing Cognitive Differences and Gender during Problem Solving

Resource Title: Addressing Cognitive Differences and Gender during Problem Solving

Description/Annotation: This research evaluated the impact of supplementing user models with additional data about cognitive features of the student. Supplemental data included individual differences variables such as: developmental stage of the learner (Piagetian), spatial ability, math-facts-retrieval and gender. These differences were applied along with multimedia and customization in two intelligent tutoring systems, one for arithmetic and one for geometry. The research resulted in the general conclusion that enhancing user models with detailed information about cognitive ability led to improved response to instruction. This is especially important to consider for domains for which there are well-established group differences, such as gender differences in mathematics. Funded by NSF GSE under award #0429125.

Author Last Name: Arroyo

Author First Name: I.

Additional Author: Woolf

: B.P.

Additional Author: Beal

: C.R.

Publication Date: 2006

Page Numbers: 31

Publication Title: International Journal of Technology, Instruction, Cognition and Learning

Volume: 4

Source: Center for Knowledge Communication

Source Type: Full Text

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder

Addressing Core Equity Issues in K-12 Computer Science Education: Identifying Barriers and Sharing Strategies

Resource Title: Addressing Core Equity Issues in K-12 Computer Science Education: Identifying Barriers and Sharing Strategies

Description/Annotation: Joint report from the Anita Borg Institute (ABI), Computer Science Teachers Association (CSTA) and the University of Arizona (UA) discussing issues in formal K-12 Computer Science education equity. Recommendations include cross sector partnerships across K-12 educators, academia, government and industry addressing collaboration opportunities and active knowledge exchange partnerships.

Author Last Name: Simard

Author First Name: Caroline

Additional Author: Stephenson,
:
Chris

Additional Author: Kosaraju
:
Deanna

Publisher: Anita Borg Institute for Women and Technology

Publication Date: 2010

Source: ABI

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Addressing Gender Equity in the Physical Sciences: Replications of a Workshop Designed to Change the Views of Department Chairs

Resource Title: Addressing Gender Equity in the Physical Sciences: Replications of a Workshop Designed to Change the Views of Department Chairs

Description/Annotation: This article presents data on the replication of a carefully planned intervention to increase the commitment of department chairs in the physical sciences to the hiring and career advancement of women. Three separate workshops for department leaders in chemistry, physics, and material science were held. Participants' views regarding factors that affect attracting women candidates,

the hiring of women faculty, and barriers to women's career progress changed significantly from before attending the workshop to after attending. The full article is available in PDF format. Funded by NSF GSE under award #0909344.

Author Last Name: Greene
Author First Name: Jessica
Additional Author: Lewis
: Pricilla
Additional Author: Richmond
: Geraldine
Additional Author: Stockard
: Jean
Publisher: Begell House, Inc
Publication Date: 2011
Page Numbers: 97-109
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 2
Source: Geraldine Richmond Laboratory
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#)

Addressing gender equity pipeline issues with a workshop for high school mathematics and science teachers

Resource Title: Addressing gender equity pipeline issues with a workshop for high school mathematics and science teachers
Description/Annotation: In order to identify, strategize, and address gender equity issues in middle school and early high school science classrooms, a workshop was held for high school math and science teachers in

an NSF math science partnership project. Interactive, team-based discussions and reports were made after short presentations on gender issues of environmental factors of stereotypes and "chilly learning climates" and affective factors of self-efficacy and societal relevance of engineering. Teachers recorded their reflections based on the factors of awareness, personal experience, literature findings, underlying causes, and possible ameliorative strategies and actions. The qualitative data was analyzed using Bandura's social learning theory of self efficacy to interpret the significance of the observations. Based on the workshop information and discussions, and their own experience, the teachers developed strategies and actions that they could apply in their own classrooms. There was a strong response to the importance of female role models and for tinkering activities for females as young as possible both inside and outside of the classroom.

Author Last Name: Krause
Author First Name: S.
Additional Author: Burrows
:
Additional Author: Sutor
:
Additional Author: Carlson
:
Publication Date: 2007
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction Educational Factors](#) » [Retention](#)

Addressing Institutional Barriers in Broadening Participation of Women and Underrepresented Groups in Engineering Higher Education

Resource Title: Addressing Institutional Barriers in Broadening Participation of Women and Underrepresented Groups in Engineering Higher Education

Description/Annotation: This panel focuses on addressing institutional barriers to broadening the participation of women and underrepresented groups in engineering higher education. Panelists will highlight collaborative recruitment, retention, and information sharing associated with programs hosted by Cornell, the University of Maryland system, MIT, and the Institute for Broadening Participation.

Author Last Name: Detrick

Author First Name: Liv

Additional Author: Hernandez

: Sara

Additional Author: Johnson

: Ashanti

Additional Author: Jones

: DiOnetta

Additional Author: Tull

: Renetta

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Addressing the Gender Gap: A Teaching and Learning Strategy in Undergraduate Science Courses

Resource Title: Addressing the Gender Gap: A Teaching and Learning Strategy in Undergraduate Science Courses

Description/Annotation: This paper discusses a classroom study to test whether a small curricular and pedagogical change - a rubric - benefits female undergraduates in introductory science courses that are gateways into STEM programs. Survey data were collected on 349 students from five science classes at a midsize public research university. Based on 14 items, three indices were created: scientific beliefs, scientific motivation, and scientific thinking and learning. The regression results show clearly that a rubric significantly assists female undergraduates with all three indices. The rubric was especially beneficial to female undergraduates who were also STEM majors.

Author Last Name: Myers
Author First Name: Carrie B.
Additional Author: Myers
: Scott M.
Publication Date: 2008
Page Numbers: 361-376
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Adjusting Gender-Based Recruiting Strategies to Fit the Appalachian Peer-Mentor Model

Resource Title: Adjusting Gender-Based Recruiting Strategies to Fit the Appalachian Peer-Mentor Model

Description/Annotation: This paper discusses a study at West Virginia University which seeks to better understand how to effectively recruit and retain qualified girls from Appalachian high schools into STEM educational paths. The lessons learned from this study guide

future recruitment and retention practices to enhance the probability that Appalachian women will ultimately enter STEM-related careers as scientists or engineers.

Author Last Name: Winn
Author First Name: Laura
Additional Author: Winn
:
Additional Author: Hensel
:
Additional Author: Robin
Additional Author: Curtis
:
Additional Author: Reagan
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Adopting A K-12 Family Model With Undergraduate Research To Enhance STEM Persistence and Achievement In Underrepresented Minority Students

Resource Title: Adopting A K-12 Family Model With Undergraduate Research To Enhance STEM Persistence and Achievement In Underrepresented Minority Students

Description/Annotation: This paper discusses how the K-12 classroom family model was implemented in a college environment at a Historically Black College and the impact undergraduate research has had on increasing the academic performance of URM students in STEM. According to the paper, participating students ranked undergraduate research/internships as having the largest impact on professional preparedness for a STEM career and/or graduate studies. The full paper is available in PDF format.

Author Last Name: Kendricks
Author First Name: Kimberly D.
Additional Author: Arment
:
Anthony R.
Publisher: Institute for Mathematics and Its Applications (IMA)
Publisher Location: Minneapolis, MN
Publication Date: 2010, Jul
Page Numbers: 1-21
Source: IMA
Source Type: Full Text PDF

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Family](#)

Advance Peer Mentoring Summits for Underrepresented Minority Women Engineering Faculty

Resource Title: Advance Peer Mentoring Summits for Underrepresented Minority Women Engineering Faculty

Description/Annotation: Supported by a National Science Foundation (NSF) ADVANCE Leadership Grant, the authors convened three Peer Mentoring/Professional Development Summits articulated by Women of Color for Women of Color for over 90 URM women faculty to eliminate the potential “show-stopping” aspects of the journey to tenure. This paper reports the outcomes of this series of summits, the impact on the demographics of engineering faculties and the critical next steps in the process.

Author Last Name: Grant
Author First Name: Christine
Additional Author: Decuir-Gunby
:
Jessica
Additional Author: Smith

: Barbara
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development Career Factors](#) » [Retention](#)

ADVANCE Portal Website

Resource Title: ADVANCE Portal Website

Description/Annotation: This web portal links to information on the web sites of all NSF ADVANCE Institutional Transformation grant recipients and many PAID grant recipients, as well as presentations from ADVANCE Principal Investigator meetings and other resources of interest to the ADVANCE community.

Web site Link: [Link to Resource](#)

Resources: Topical resources include:

- Institution-specific contributions on institutional change, faculty development and work-life balance
- ADVANCE program information including program calendars, site visits, NSF reports and PI meeting information
- Institution-specific research findings
- Program assessment tools and data

Audience-specific resources are organized for department heads, pre-tenured faculty, faculty and post-doctoral students. Resources are contributed by participating insitutions and are annotated.

'About the Portal' has a section on ADVANCE institutions that includes a brief description of each institution and a status of its grant.

ADVANCE participant materials includes a listserv for program communication, an indicators toolkit to support NSF reporting requirements, and a program evaluation toolkit to support effective

presentations and data collection related to the grant evaluation process.

- Site Access Details: The site is publicly accessible although some materials are clearly intended for program participants versus the general public. But, this portal may be interesting to web visitors who want to understand some of the NSF grant processes.
- Partners and Funding: ADVANCE is a National Science Foundation program to increase the participation and advancement of women in academic science and engineering careers. The portal web site is funded by NSF and hosted by Virginia Tech.
- Contact Name: Peggy Layne
- Contact E-mail: playne@vt.edu
- Last Update Date: May 16, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Retention](#) [Career Factors » Tenure Policies & Practices](#)

ADVANCE-ENG Girls to Women: An Innovative Engineering Faculty-Student Mentoring Summit for Underrepresented Minority (URM) Girls and their Mothers

- Resource Title: ADVANCE-ENG Girls to Women: An Innovative Engineering Faculty-Student Mentoring Summit for Underrepresented Minority (URM) Girls and their Mothers
- Description/Annotation: This paper presents the ADVANCE-ENG Girls to Women Summit, which included over 70 underrepresented minority (URM) girls and their mothers (or other adult caregivers) to attend a day of engineering career exploration while interacting with over 60 URM women engineering professors from around the United States. The day was informative, empowering and encouraging, providing an opportunity for middle school girls to meet real women of color who are engineering professors, real women who at one time were girls making a critical move towards an engineering career. The prevailing Summit goal was to attract girls at a critical stage in the K-12 pipeline to engineering careers. The two-day event enabled the girls to take the time to envision themselves in the future, just like the faculty present, and for daughters and mothers/caregivers to connect or re-connect, forging an alliance to sustain the mothers/caregivers through the

challenges they will face as their daughters become future women in engineering. The girls had continuous interaction with URM women engineering college students as role models throughout the event. Funded by NSF ADVANCE under award #0545269.

Author Last Name: Bowles
Author First Name: Tuere
Additional Author: Grant
: Christine
Additional Author: Martin
: Pamela
Additional Author: Carpenter
: Eric
Publication Date: 2010
Publication Title: 2010 ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Educational Factors » Faculty Student Interaction Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-ADVANCE Publications by Funder Individual Beliefs and Behaviors » STEM Career Interest/Awareness

ADVANCE-Purdue Research Briefs

Resource Title: ADVANCE-Purdue Research Briefs
Description/Annotation:
Web site Link: [Link to Resource](#)
Partners and Funding: This material is based upon work supported by the National Science Foundation under Grant No. 0811194.
Contact Name: Alice Pawley
Contact E-mail: apawley@purdue.edu
Last Update Date: May 2014

ADVANCE-Purdue: Retention, Success and Leadership for Senior Female STEM Faculty

Resource Title: ADVANCE-Purdue: Retention, Success and Leadership for Senior Female STEM Faculty

Description/Annotation: This paper discusses ADVANCE-Purdue's Career Coaching Cohorts which provide leadership development opportunities and enhance the success for post-tenure faculty, with a focus on STEM female faculty, through career coaching. The paper discusses the motivation, implementation, initial assessment, and future plans of the Career Coaching Cohorts. Evaluation data and participant demographics are also presented.

Author Last Name: Zurn-Birkhimer

Author First Name: Suzanne

Additional Author: Geier

: Susan Ruth

Additional Author: Sahley

: Chris

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development](#)

ADVANCEing Faculty Program at Louisiana Tech University

Resource Title: ADVANCEing Faculty Program at Louisiana Tech University

Description/Annotation: The ADVANCEing Faculty Program in the College of Engineering and Science at Louisiana Tech University has as its goal to create a culture of success for women faculty in engineering and science. Initiated by a National Science Foundation ADVANCE Partnership for Adaptation, Implementation and Dissemination (PAID) grant, it

encompasses mentoring, networking, collaboration, training activities. It is administered by the Office for Women in Science and Engineering (OWISE) in the Dean's Office.

Web site Link: [Link to Resource](#)

Logo:

More: The ADVANCEing Faculty Program includes the following components: •

- Faculty Lunches
- Training Modules for Administrators and Faculty
- Mentoring Program
- Worklife Policies for Life Transitions
- Grant Writing Program
- Career Networking Awards
- Distinguished Lectureship Program
- Executive Coaching Program
- Career Development Workshops
- Women in STEM Awards Banquet.

Site Access Details: This site is publicly accessible.

Partners and Funding: The ADVANCEing Faculty Program is supported by a National Science Foundation (NSF) Partnership for Adaptation, Implementation and Dissemination (PAID) Grant under NSF's ADVANCE Program.

Contact Name: Jenna Carpenter

Contact E-mail: jenna@latech.edu

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Diversity Orgs & Pgms for Women and Girls](#) [Career Factors » Retention Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs](#)

Advancement of Women of Color in Science, Technology, Engineering, and Math (STEM) Disciplines

Resource Title: Advancement of Women of Color in Science, Technology, Engineering, and Math (STEM) Disciplines

Description/Annotation: This research paper from the Faculty Resource Network (FRN) at New York University (NYU) identifies several of the unique barriers faced by women of color in science, technology, engineering and mathematics (STEM) disciplines. According to

the paper, women of color are poorly represented in the STEM fields and encounter unique obstacles when attempting to obtain and maintain faculty positions, as well as positions of leadership within the STEM industry.

Author Last Name: Obiomon
Author First Name: Pamela Holland
Additional Author: Tickels
:
Virginia Cook
Additional Author: Wowo
:
Adrienne Holland
Additional Author: Holland-Hunt
:
Shirley
Publisher: Faculty Resource Network, NYU
Publisher Location: New York, NY
Publication Date: 2007, Nov
Source: NYU
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Advancing Gender Equity in Organizations: The Challenge and Importance of Maintaining a Gender Narrative

Resource Title: Advancing Gender Equity in Organizations: The Challenge and Importance of Maintaining a Gender Narrative

Description/Annotation: The authors explore making organizational change based on a new approach to gender equity. They propose that feminist theory is not enough to really change our deeply ingrained patterns of gender inequality, and developed a new approach defining gender as a complex social structure. This new definition is tested in organizations and results are outlined. For industry leaders

striving to make organizational changes to move towards gender equity.

Author Last Name: Ely
Author First Name: Robin J.
Additional Author: Meyerson
: Debra E.
Publisher: Sage Publications
Publisher Location: Thousand Oaks, CA
Publication Date: 2000
Page Numbers: 589-608
Publication Title: Organization
Volume: 7
Issue: 4
Source: Sage
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

ADVANCing Women and STEM Faculty Members through Strategic Career Planning

Resource Title: ADVANCing Women and STEM Faculty Members through Strategic Career Planning

Description/Annotation: This 14-page paper from the 2012 WEPAN National Conference describes a strategic career planning workshop which demonstrates a retention promoting tool that attendees can implement on their own campus. According to the paper, the workshop focuses on tenure and other career milestones and consists of a hands-on demonstration followed by implementation guidelines based on the ADVANCE campus experience. The full paper is available in PDF format.

Author Last Name: Latimer

Author First Name: Melissa
Additional Author: Jackson
: J. Kasi
Additional Author: Stores
: Katie
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-14
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Advancing Women Faculty at the New Jersey Institute of Technology through Collaborative Research Networks: an Analysis of Preliminary Results and Methodology

Resource Title: Advancing Women Faculty at the New Jersey Institute of Technology through Collaborative Research Networks: an Analysis of Preliminary Results and Methodology

Description/Annotation: NJIT ADVANCE program aimed at overcoming barriers to the advancement for women research faculty caused by isolation and lack of social capital building opportunities. Describes social network analysis (SNA) study to understand self-reported ego-networks of faculty.

Author Last Name: Steffen-Fluhr
Author First Name: Nancy
Additional Author: Plummer
: Maria
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008

Page Numbers: 13
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Advancing Women Faculty in Engineering through Institutional Transformation: The Iowa State University NSF ADVANCE Program in the College of Engineering

Resource Title: Advancing Women Faculty in Engineering through Institutional Transformation: The Iowa State University NSF ADVANCE Program in the College of Engineering

Description/Annotation: This paper discusses Iowa State University's (ISU) ADVANCE program. The goal of the ISU ADVANCE program is to investigate the effectiveness of a multilevel collaborative effort to produce institutional transformation that results in the full participation of women faculty in science, technology, engineering and math fields in the university.

Author Last Name: Constant

Author First Name: Kristen P.

Additional Author: Bird

: Sharon R.

Additional Author: Hamrick

: Florence

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: Iowa State University

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Career Factors » Retention Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

Advancing Women in Engineering by Empowering Student Leaders to Promote the Recruitment and Retention of Females in Engineering

Resource Title: Advancing Women in Engineering by Empowering Student Leaders to Promote the Recruitment and Retention of Females in Engineering

Description/Annotation: Cal Poly San Luis Obispo's College of Engineering created a model for empowering women to excel by establishing the Society of Women Engineers student section as the implementing organization for women in engineering recruitment and retention activities. Through the years, Cal Poly SWE has planned, implemented and improved their officer structure, programming and member recruitment activities in promotion of their mission. The best practices gleaned from the experiences of this flourishing section are discussed in this paper.

Author Last Name: Finger

Author First Name: Helene

Additional Author: Van Houten

: Tracy

Additional Author: Curry

: Barbara

Additional Author: Harris

: Jennifer

Additional Author: Francisco

: Malia

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Advancing Women in Science and Engineering: Advice to the Top

Resource Title: Advancing Women in Science and Engineering: Advice to the Top

Description/Annotation: This brochure offers ten practical tips for leaders in academia to assist in the advancement of women in science and engineering. Tips include: "Learn about outstanding women in your campus"; "Learn from the local experts about gender issues"; and "Review campus data on equity", among others.

Author Last Name: Handelsman

Author First Name: Jo

Additional Author: Sheridan

: Jennifer

Additional Author: Fine

: Eve

Additional Author: Carnes

: Molly

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2009

Source: WISELI

Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Advancing Women in Science and Engineering: Advice to the Top

Resource Title: Advancing Women in Science and Engineering: Advice to the Top
Note- I think this is a duplicate of the record above.

Description/Annotation: Using short summaries of existing research illustrating common situations women face in male-dominated environments (e.g., being a "token", isolation, stereotype threat), this brochure suggests ten concrete steps administrators can take to alleviate these problems. **Intended Audience:** Upper-level administrators such as Presidents and Chancellors, Provosts, Deans, and Department Chairs. **Intended Purpose:** To be used within workshops or educational sessions for administrative leaders, or individually by leaders who seek to promote the participation and advancement of women in academic science and engineering.

Author Last Name: WISELI
Publisher: University of Wisconsin-Madison
Publisher Location: Madison, WI
Publication Date: 2009
Page Numbers: 1-6
Source: WISELI
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#) [Career Factors » Leadership & Management](#) [Career Factors » Retention](#)

Advancing Women in STEM disciplines to Leadership Roles in Academe

Resource Title: Advancing Women in STEM disciplines to Leadership Roles in Academe

Description/Annotation: This paper describes an NSF ADVANCE-funded program designed to facilitate the rise of faculty women to academic leadership positions in NSF-sponsored disciplines. Included are a detailed description of the major components of the Leadership Institute, characteristics of the women faculty members who enrolled in the 4-day program, a summary of participants' leadership activities to date, and an analysis of participants' pre-institute leadership goals. Sixteen women faculty participated in this first of three leadership institutes. Data from these participants regarding the value and effectiveness of the first

institute are presented as well as conclusions and plans for future work. Funded by NSF ADVANCE under award #0318248.

Author Last Name: O'Bannon
Author First Name: Deborah J.
Additional Author: Garavalia
:
Additional Author: Linda S.
Additional Author: Renz
:
Additional Author: David O.
Additional Author: McCarther
:
Additional Author: S. Marie
Publication Date: 2005
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Professional Development Publications by Funder](#)

Advancing Women Leaders: The Connection Between Women Board Directors and Women Corporate Officers

Resource Title: Advancing Women Leaders: The Connection Between Women Board Directors and Women Corporate Officers

Description/Annotation: A report exploring the relationship between women board directors and women in corporate officer positions. Since progress for women is still slow at the top, corporate boards are examined as possible links to increasing the advancement of women into leadership positions. The relationship between women board directors and women in line positions versus women in staff positions is researched, since women in line positions have a better chance of advancement. For industry leadership.

Author Last Name: Jay

Author First Name: Lois
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2008
Page Numbers: 1-16
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Advancing Women Scientists: Exploring a Theoretically Grounded Climate Change Workshop Model

Resource Title: Advancing Women Scientists: Exploring a Theoretically Grounded Climate Change Workshop Model

Description/Annotation: This paper describes the theoretical models used to develop a prototype workshop series implemented in departments to help faculty progress in their readiness to advance women scientists. The three theoretical underpinnings are the gender-as-structure theory of organizational change, Appreciative Inquiry, and the Transtheoretical Model. These workshops are one aspect of the climate change efforts implemented by the ADVANCE program of the University of Rhode Island.

Author Last Name: Silver

Author First Name: Barbara

Additional Author: Prochaska

: Janice

Additional Author: Mederer

: Helen

Additional Author: Harlow

: Lisa

Additional Author: Sherman

: Karen
Publication Date: 2007
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 3
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) »
[Professional Development](#)

Advancing Your Career Through Awards and Recognitions: A Guide for Women Faculty in the Sciences & Engineering

Resource Title: Advancing Your Career Through Awards and Recognitions: A Guide for Women Faculty in the Sciences & Engineering

Description/Annotation: This brochure outlines the reasons why women faculty should pursue important awards and honors in their fields, and provides advice about how to position themselves to receive nominations and awards. Intended Audience: Women faculty and staff in the sciences and engineering. Intended Purpose: To be used within leadership development workshops or educational sessions for women faculty, or by mentors of women faculty.

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2004

Page Numbers: 2

Source: WISELI

Source Type: Free PDF

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

AEA365 Blog (American Evaluation Association)

Resource Title:	AEA365 Blog (American Evaluation Association)
Description/Annotation:	AEA365 is sponsored by the American Evaluation Association (AEA) and is dedicated to highlighting Hot Tips, Cool Tricks, and Rad Resources for evaluators. Blog features a post a day from and for evaluators around the globe.
Web site Link:	Link to Resource
More:	Blog contributors need to be pre-approved prior to submitting blog entries.
Resources:	Blog entries and comments can be received via email or RSS.
Site Access Details:	This site is publicly accessible.
Partners and Funding:	The site is sponsored by the American Evaluation Association
Contact E-mail:	aea365@eval.org
Last Update Date:	June 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

African American Women in Science: Experiences from High School through the Post-secondary Years and Beyond

Resource Title:	African American Women in Science: Experiences from High School through the Post-secondary Years and Beyond
Description/Annotation:	This essay uses data to explore experiences and attitudes of young African American women in science achievement at various points in the science education system.
Author Last Name:	Hanson
Author First Name:	Sandra L.
Publication Date:	2004, Spring
Page Numbers:	96-115

Publication Title: NWSA Journal
Volume: 16
Issue: 1
Source: Project Muse
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#)

After School Inclusive Math (AIM)

Resource Title: After School Inclusive Math (AIM)

Description/Annotation: The Afterschool Inclusive Math (AIM) program and guidelines were developed to provide youth with and without disabilities the opportunity to work together on real-world, inquiry-based math. AIM is a program of The Educational Equity Center (EEC) at The Academy for Educational Development (AED).

Web site Link: [Link to Resource](#)

More: AIM is based on [After-School Math PLUS](#), an engaging curriculum that helps students find the math in everyday experiences. After-School Math PLUS creates unique partnerships between afterschool centers and science/technology museums. AIM brings this distinctive, standards-based program to inclusive afterschool settings.

Resources: Activities are grouped in four themes:

- In ArtMath, students experience the elegance of math, explore the many connections between art and math, and use math (tessellations, patterns, symmetry) to create their own art.
- In the Built Environment, students learn about scale, measurement and their immediate environment to create a blueprint and a charrette depicting an "ideal community."
- In Jump Rope Math, students learn various ways to gather and represent data (bar graphs, line graphs, scatter graphs, and Venn diagrams) while jumping rope and getting exercise.

- In MusicMath, students learn about fractions as they use whole, half, quarter, and eighth notes to create musical compositions.

Site Access Details: This site is publicly accessible.

Partners and Funding: Funded by the Mitsubishi Electric America Foundation and the NEC Foundation of America.

Contact Name: Linda Col?n

Contact E-mail: lcolon@aed.org.

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors » Curriculum Educational Factors Educational Factors » Informal Academic Preparation](#)

After-School Worries: Tough on Parents, Bad for Business

Resource Title: After-School Worries: Tough on Parents, Bad for Business

Description/Annotation: A 56 page report about working parents and their stress related to after-school childcare. Parental Concern about After School Time (PCAST) has been identified as one of the leading stressors to working parents, both women and men, although more women are affected. This study reports what parents say their companies do and don't do to help them manage family and work related to stress about after-school care. It suggests ways organizations can make changes at little cost to help reduce PCAST. Valuable for working parents and industry leaders and managers.

Author Last Name: Catalyst

Publisher: Catalyst

Publisher Location: New York, NY

Publication Date: 2006, Dec

Page Numbers: 1-56

Source: Catalyst

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Agents of Change: Pathways through which Mentoring Relationships Influence Adolescents' Academic Adjustment

Resource Title:	Agents of Change: Pathways through which Mentoring Relationships Influence Adolescents' Academic Adjustment
Description/Annotation:	Study of the effect of volunteer mentoring relationships on academic outcome for adolescents.
Author Last Name:	Rhodes
Author First Name:	Jean E.
Additional Author:	Grossman
:	Jean B.
Additional Author:	Resch
:	Nancy L.
Publisher:	Society for Research in Child Development
Publication Date:	2000, Dec
Page Numbers:	1662-1671
Publication Title:	Child Development
Volume:	71
Issue:	6
Source:	JSTOR
Source Type:	Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Ain't I a Woman: Black Women and Feminism

Resource Title:	Ain't I a Woman: Black Women and Feminism
-----------------	---

Description/Annotation: 205 page book discussing African American Women's History and other bits of history left out of American history books.

Author Last Name: Hooks

Author First Name: Bell

Publisher: South End Press

Publication Date: 1981

Page Numbers: 205

Source: ASEE

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

All in the (Engineering) Family? - The Family Occupational Background of Men and Women Engineering Students

Resource Title: All in the (Engineering) Family? - The Family Occupational Background of Men and Women Engineering Students

Description/Annotation: This article examines and compares the family occupational background of men and women engineering students. Analyses reveal that around half of the men and women in a sample of student engineers had at least one engineer in their family, with women significantly more likely to have an engineering parent. Women with an engineer in their family were significantly more likely to have decided to study engineering before college. Authors conclude that engineering family members are passing on engineering-related knowledge, interests, and aspirations to a segment of the student engineering population.

Author Last Name: Mannon

Author First Name: Susan E.

Additional Author: Schreuders

: Paul D.

Publication Date: 2007

Page Numbers: 333-351
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Career Factors](#) » [Family](#)
[Issues](#) [Individual Beliefs and Behaviors](#)

Alleviating Women's Mathematics Stereotype Threat through Salience of Group Achievements

Resource Title: Alleviating Women's Mathematics Stereotype Threat through Salience of Group Achievements

Description/Annotation: This article reports the results of two experiments done to test whether giving women positive information about other women's achievements would increase their scores on mathematics tests. The authors were testing the theory that stereotyped groups perform poorly when expected to, and that there are ways to alleviate this poor performance. The authors conclude there are some successful ways of improving performance in a stereotyped group, and suggest other variables be tested to identify more exactly what is successful. Of interest to those studying psychological implications of gender bias and stereotypes.

Author Last Name: McIntyre
Author First Name: Rusty B.
Additional Author: Paulson
: Rene M.
Additional Author: Lord
: Charles G.
Publisher: Elsevier
Publisher Location: Oxford, UK
Publication Date: 2003, Jan

Page Numbers: 83-90
Publication Title: Journal of Experimental Social Psychology
Volume: 39
Issue: 1
Source: Amherst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Ambassador program for recruiting girls into engineering - appropriate messages, messengers, and modes of delivery

Resource Title: Ambassador program for recruiting girls into engineering - appropriate messages, messengers, and modes of delivery

Description/Annotation: Although women make up more than half of the U.S. population, the percentage of women entering engineering is much lower. To address this discrepancy, the College of Engineering at Penn State has initiated an Engineering Ambassador Program that sends female engineering undergraduates to give talks in science and math classes within Pennsylvania high schools and middle schools. The main goal of these talks is to clarify what engineers do. The primary presentation style that the ambassadors rely on is an assertion-evidence style taught in a special presentations course. Evaluations of the presentations by almost 500 students at six different schools across Pennsylvania (including two all-girls schools) indicate that the presentations are highly successful at communicating the messages. More powerful evidence for the efficacy of this program lies in the volunteered responses of girls to these presentations. Funded by NSF DUE under award #1237353.

Author Last Name: Marshall
Author First Name: M.
Additional Author: Alley
:
M.

Additional Author: Zappe
:
Additional Author: Thole
:
Additional Author: Frecker
:
Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-DUE Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

America's Got Talent But Not Enough Is Going into Computer Science

Resource Title: America's Got Talent But Not Enough Is Going into Computer Science

Description/Annotation: CS Principles is a new Advanced Placement computing course in development by the National Science Foundation (NSF) and the College Board that seeks to broaden participation in computing and computer science. The National Center for Women & Information Technology (NCWIT) provides a slideshow containing pertinent data regarding human resources of the U.S. in computer science. NCWIT also provides vital links to the College Board's curriculum framework as well as an open letter advocating CS Principles to the computer science community.

Author Last Name: NCWIT
Publisher: NCWIT
Publication Date: 2010
Source: NCWIT
Source Type: Webpage

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

America's Youth: Transitions to Adulthood

Resource Title:	America's Youth: Transitions to Adulthood
Description/Annotation:	This 171-page report from the National Center for Education Statistics (NCES) provides a compilation of over 50 downloadable tables of statistical information related to the lives of youth. This annual report examines numerous aspects of the lives of youth and young adults, ages 14 to 24, in the United States over the last several decades. The report features status and trend data from multiple surveys on the distribution of youth and their family structure; on school-, employment-, and health-related factors; and on future plans. The full report is available in PDF format.
Author Last Name:	Aud
Author First Name:	Susan
Additional Author:	KewalRamani
:	Angelina
Additional Author:	Frohlich
:	Lauren
Publisher:	U.S. Department of Education, National Center for Education Statistics
Publisher Location:	Washington, DC
Publication Date:	2011, Dec
Page Numbers:	1-71
Source:	NCES
Source Type:	Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Cultural Influences](#) » [Family Educational Factors](#) » [Formal Academic Preparation](#)

American Association for the Advancement of Science (AAAS)

Resource Title:	American Association for the Advancement of Science (AAAS)
Description/Annotation:	The American Association for the Advancement of Science, "Triple A-S" (AAAS), is an international non-profit organization dedicated to advancing science around the world by serving as an educator, leader, spokesperson and professional association.
Web site Link:	Link to Resource
More:	<p>AAAS has nearly 120,000 individual and institutional members and 262 affiliates, serving 10 million scientists in fields ranging from plant biology to dentistry.</p> <p>In addition to organizing membership activities, AAAS publishes the journal Science, as well as many scientific newsletters, books and reports, and spearheads programs that raise the bar of understanding for science worldwide.</p>
Resources:	<p>Resources include:</p> <ul style="list-style-type: none">• Of particular interest is the AAAS Center for Increasing Science & Engineering Capacity. Center contains Resource Catalogues (New Findings and Insights on Institutional Practices and Academic Success) published several times a year from Aug, 2005 - Nov, 2008 containing digest of sources with commentary.• Program resources for Science & Policy, Education, AAAS Centers, Project 2061 and International Office• In addition to peer-reviewed journals, AAAS provides an array of print and online resources for educators, students, early-career scientists and engineers, reporters, and the public. Browse all publications or view featured resources in key categories.• Career Resources including fellowships and internships.
Site Access Details:	The site has both public and members-only resources.
Partners and Funding:	AAAS is a fee-based membership organization and receives donations from both individuals and organizations.
Contact E-mail:	membership@aaas.org
Last Update Date:	May 29, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

American Association of University Women (AAUW)

- Resource Title: American Association of University Women (AAUW)
- Description/Annotation: AAUW advances equity for women and girls through advocacy, education, and research.
- Web site Link: [Link to Resource](#)
- Resources: Resources include:
- Advocacy resources including the AAUW Federal Policy Agenda, Action Network and Legal Advocacy Fund
 - Educational resources including fellowships/grants/awards, campus action and community projects
 - Research Reports
- Site Access Details: This site has both public and members-only areas.
- Partners and Funding: Nationwide network of nearly 100,000 members, 1,000 branches, and 500 college/university institution partners.
- Contact E-mail: connect@aauw.org
- Last Update Date: May 20, 2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

American Chemical Society (ACS) Directory of Graduate Research

- Resource Title: American Chemical Society (ACS) Directory of Graduate Research
- Description/Annotation: Provides resources for choosing a graduate school including identifying types of research done at educational institutions. The ACS Directory of Graduate Research (DGR) is a comprehensive source of information on chemical research and researchers at universities in the U.S. and Canada.
- Author Last Name: ACS
- Source: ACS
- Source Type: Website (subscription access)

Resource Type Categories: Database/Tool » Directory Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation

American Society for Engineering Education (ASEE)

- Resource Title: American Society for Engineering Education (ASEE)
- Description/Annotation: Nonprofit organization of individuals and institutions committed to furthering education in engineering and engineering technology.
- Web site Link: [Link to Resource](#)
- Resources: Resources include:
- Conference proceedings going back to 1996
 - Engineering K-12 Center with outreach and curricula materials
 - Publications including newsletters, blogs, journals and magazines
 - Fellowships
- Site Access Details: This site has both public and members-only areas.
- Partners and Funding: ASEE's 12,000+ members include deans, department heads, faculty members, students, and government and industry representatives who hail from all disciplines of engineering and engineering technology. ASEE's organizational membership is composed of 400 engineering and engineering technology colleges and affiliates, more than 50 corporations, and numerous government agencies and professional associations.
- Contact E-mail: aseeexec@asee.org
- Last Update Date: May 20, 2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

American Society of Mechanical Engineers (ASME)

- Resource Title: American Society of Mechanical Engineers (ASME)
- Description/Annotation: ASME is a not-for-profit professional organization that enables collaboration, knowledge sharing and skill development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education and professional development

programs provide a foundation for advancing technical knowledge and a safer world.

Web site Link: [Link to Resource](#)

Resources: Site offers:

- Education -> [Pre-college \(K-12\) STEM resources](#)
- Communities -> [Early career center resources](#)
- Publications

Site Access Details: The site has both publicly accessible and members-only resources.

Partners and Funding: ASME is a membership organization.

Contact E-mail: infocentral@asme.org

Last Update Date: May 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors » Professional Development](#) [Educational Factors » Retention](#)

An Account of Women's Progress in Engineering: A Social Cognitive Perspective

Resource Title: An Account of Women's Progress in Engineering: A Social Cognitive Perspective

Description/Annotation: To examine why young women entering engineering may receive higher grades and have a greater tendency to remain than men, the author applied Bandura's triadic model of reciprocity between environment, self, and behavior. The measured variables included academic integration or discrimination, self-measures of academic self-confidence, engineering self-efficacy, and behaviors taken to self-regulate learning: critical thinking, effort, peer learning, and help seeking. The data revealed that women apply slightly more effort and have slightly less self-efficacy than men. Their academic confidence is nearly equal in almost all areas. Most significantly, many previous gender biases appear diminished, and those that do exist are slight.

Author Last Name: Vogt

Author First Name: Christina

Publication Date: 2003

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 3-4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational](#)
[Factors](#) » [Retention](#)

An American Imperative: Transforming the Recruitment, Retention, and Renewal of Our Nation's Mathematics and Science Teaching Workforce

Resource Title: An American Imperative: Transforming the Recruitment, Retention, and Renewal of Our Nation's Mathematics and Science Teaching Workforce

Description/Annotation: This 71-page report deals with the shortage of qualified teachers in the STEM disciplines by focusing on three critical areas: recruitment, retention and renewal. Policy recommendations are given in all areas, with justification for all involved stakeholders.

Author Last Name: BHEF

Publisher: Business-Higher Education Forum

Publisher Location: Washington, D.C.

Publication Date: 2007

Page Numbers: 1-71

Source: BHEF

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical](#) Categories: [Career Factors](#) [Career](#)
[Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

An Analysis of Factors Affecting Choice of Majors in Science, Mathematics, and Engineering at the University of Michigan

Resource Title: An Analysis of Factors Affecting Choice of Majors in Science, Mathematics, and Engineering at the University of Michigan

Description/Annotation: A thorough analysis of the gender differences in STEM majors.

Author Last Name: Manis

Author First Name: Jean D.

Publisher: University of Michigan - Center for the Education of Women

Publisher Location: Ann Arbor, MI

Publication Date: 1989

Source: University of Michigan

Database Name: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

An Analysis of Female STEM Faculty at Public Two-Year Institutions

Resource Title: An Analysis of Female STEM Faculty at Public Two-Year Institutions

Description/Annotation: This paper presents a quantitative analysis on career success and employment outcomes in STEM fields using data from National Study of Postsecondary Faculty (NSOPF), with focus on the 2003-2004 survey. The analysis is based on the hypothesis of the effect of gender on salary, rank, part-time status, highest degree and field of teaching for faculty in two year institution compare to four-year institution.

Author Last Name: Koonce

Author First Name: David A.

Additional Author: Conley

: Valerie Martin

Additional Author: Hening

: Dyah A.
Additional Author: Anderson
: Cynthia D.
Publication Date: 2011
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

An Analysis of the Effectiveness of the Admissions Policy for an Outreach Program for Girls in Engineering

Resource Title: An Analysis of the Effectiveness of the Admissions Policy for an Outreach Program for Girls in Engineering

Description/Annotation: This paper discusses Camp REACH (Reinventing Engineering and Creating New Horizons) which aims to attract girls to engineering, increase their self-confidence and self-esteem, and educate their parents or guardians about engineering. In this article, the current acceptance process is examined to see if the program attracts and offers acceptance to girls who are likely to benefit from the program. The analysis shows that girls who submit higher quality essays are in many ways more likely to benefit. However, girls with poorer quality essays in some cases show significant benefit. The conclusion is that the acceptance process should not be made more competitive.

Author Last Name: Nicoletti
Author First Name: Denise
Publication Date: 2002
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 2
Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

An Assessment of the Effectiveness of the McNair Program at the University of Akron

Resource Title: An Assessment of the Effectiveness of the McNair Program at the University of Akron

Description/Annotation: The Ronald E. McNair Postbaccalaureate Achievement Program is one of the six federal TRIO programs funded and periodically reviewed by the U.S. Department of Education. The program is an opportunity for educational outreach designed to inspire, motivate, and support students from disadvantaged backgrounds. This article investigates several selection variables, including students' research activities, support services of the program director's office, the role and enthusiasm of faculty mentors, and research- and workshop-related activities, as predictors of success in the program during its first 2 years at Akron.

Author Last Name: Lam

Author First Name: Paul C.

Additional Author: Ugweje

: Okechukwu

Additional Author: Mawasha

: P. Ruby

Additional Author: Srivatsan

: Tirumalai S.

Publication Date: 2003

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 1

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

An Electrical Engineering Module for Women in Engineering

Resource Title: An Electrical Engineering Module for Women in Engineering

Description/Annotation: This paper discusses a summer camp called EXITE! (Exploring Interest in Technology and Engineering) hosted by The University of Puerto Rico Mayagüez (UPRM). This camp is designed to introduce girls from middle schools from the western area of Puerto Rico to the engineering and technological fields. The main objective of the camp is to motivate girls entering the 7th and 8th grades, early in their life, to select and pursue careers in engineering or computer sciences. The students participate in workshops applying scientific and engineering concepts, as well as on hands-on experiments in a laboratory environment.

Author Last Name: Bartolomei-Suarez

Author First Name: Sonia M.

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) »
[STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

An empirical study of gender differences in Chinese students' science achievement

Resource Title: An empirical study of gender differences in Chinese students' science achievement

Description/Annotation: A Chinese database collected from a random sample of more than 12,000 ninth-grade students in an SISS Extended Study (SES) was used in this study to investigate gender differences in student science achievement. In this empirical data analysis, which uncovered significant gender differences across the nation, male students received the higher scores. The results were interpreted in light of the educational, political, social, and cultural contexts of modern-day China.

Author Last Name: Wang
Author First Name: Jianjun
Additional Author: Staver
: John R.
Publication Date: 1997
Publication Title: The Journal of Educational Research
Volume: 90
Issue: 4
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

An Empirical Test of Hall and Sandler's 1982 Report: Who Finds the Classroom Climate Chilly

Resource Title: An Empirical Test of Hall and Sandler's 1982 Report: Who Finds the Classroom Climate Chilly

Description/Annotation: This 25 page report investigates observations of 14 "chilling practices" (i.e.: sexist practices which 'chill' women) in the early 1980s at one medium sized Midwestern institution. The views of the importance of the behaviors was judged differently between men and women, but the number of instances nor the genders of the instructors engaging in the behavior. This report is valuable in documenting that these "chilling effects" exist in academia.

Author Last Name: Foster
Author First Name: Ted

Publisher Location: Oklahoma City, OK
Publication Date: 1994, Apr 7-10
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

An Examination of Industry's Desired Traits for Engineering Graduates and Gender Differences

Resource Title: An Examination of Industry's Desired Traits for Engineering Graduates and Gender Differences

Description/Annotation: This paper discusses hands-on ability as an important trait of engineering graduates. According the authors, it is unclear how faculty, students, and industry prioritize hands-on ability relative to other desirable traits. Surveys were given to industrial representatives, faculty, and students asking them to rate hands-on ability among eight other traits. Analysis found that hands-on ability ranked third. This paper discusses how understanding the importance of hands-on ability would better allow engineering curricula to reflect its prioritization. Funded by NSF REE under award #0835987.

Author Last Name: Pereira
Author First Name: Anna
Additional Author: Miller
:
Additional Author: Helton
:
Additional Author: Bohmann
:
Additional Author: Leonard
Additional Author: VanArsdale
:
Publication Date: 2010

Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-EEC-REE Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

An Examination of Technical Interests Motivating Women and Men Engineering Majors

Resource Title: An Examination of Technical Interests Motivating Women and Men Engineering Majors
Description/Annotation: This paper examines the patterns of choices on presentation topics made by women enrolled in a junior-level class in Mechanical Engineering.
Author Last Name: Watson
Author First Name: Karan L.
Additional Author: Weese
: John A.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

An Exploration of Gender Diversity in Engineering Programs: A Curriculum and Instruction-Based Perspective

Resource Title: An Exploration of Gender Diversity in Engineering Programs: A Curriculum and Instruction-Based Perspective

Description/Annotation: This study explores how variations in curricular emphases, instructional practices, and students' perceptions of climate across disciplines are related to gender disparities across engineering disciplines. Analyses demonstrate that programs in mechanical and electrical engineering are significantly less diverse by gender than biomedical/bioengineering, chemical, civil, general, and industrial engineering. This research indicates that females may gravitate toward or persist in disciplines that emphasize thinking from a broad, systems perspective in which instructors explicitly link topics across disciplines in their courses. The less diverse electrical and mechanical engineering disciplines could place a greater emphasis on such topics as an effort to boost their attractiveness to females.

Author Last Name: Knight

Author First Name: David

Additional Author: Lattuca

: Lisa R.

Additional Author: Yin

: Alexander

Additional Author: Kremer

: Gul

Additional Author: York

: Travis

Publisher: Begell House, Inc

Publisher Location: Redding, CT

Publication Date: 2012

Page Numbers: 55-78

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 18

Issue: 1

Source: Begell House

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Educational Factors](#) » [Curriculum Educational Factors Cultural Influences](#) » [Gender Diversity Educational Factors](#) » [Pedagogy & Instruction](#)

An exploratory study of students' constructions of gender in science, engineering and technology

Resource Title:	An exploratory study of students' constructions of gender in science, engineering and technology
Description/Annotation:	This paper explores science, engineering, and technology (SET) students' constructions of gender and the discourses they draw on when constructing female participation in SET. Focus group discussions were conducted with male and female students from an urban South African university. A discourse analysis identified various restrictive discourses that resist female participation in SET and value traditional gender roles for men and women, as well as more marginal voices that support gender equity. The paper concludes with recommendations for interventions aimed at challenging restrictive constructions of gender in higher education.
Author Last Name:	Lynch
Author First Name:	Ingrid
Additional Author:	Nowosenetz
:	Tessa
Publication Date:	2009
Page Numbers:	567-581
Publication Title:	Gender and Education
Volume:	21
Issue:	5
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

An Extension Services Model for the Diffusion of New Practices in Education

Resource Title: [An Extension Services Model for the Diffusion of New Practices in Education](#)

Description/Annotation: Powerpoint created by AAAS Capacity Center describes the differentiating primary purpose for NSF Extension Services programs as broadening participation in STEM. Contrasts 9 extension services programs (2005-2009), describing promising service models, communities served and lessons learned.

Author Last Name: Sevo

Author First Name: Ruta

Additional Author: Chubin

: Daryl E.

Publisher: American Association for the Advancement of Science Capacity Center

Publication Date: 2011

Source: AAAS

Resource Type Categories: [Webinar/Video](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

An Integrated Living and Learning Community for First and Second Year Undergraduate Women in Science & Engineering

Resource Title: [An Integrated Living and Learning Community for First and Second Year Undergraduate Women in Science & Engineering](#)

Description/Annotation: This paper discusses the Women in Science and Engineering (WISE) Village, which combines a group living experience with resident, upper-class mentors who assist in the transition to university life. The WISE Village is a supportive environment in which women engage in focused inquiry within their disciplines and develop the skills and talents necessary to become successful students and professionals in STEM fields.

Author Last Name: Titus-Becker
Author First Name: Katherine
Additional Author: Rajala
:
Sarah
Additional Author: Bottomley
:
Laura
Additional Author: Raubenheimer
:
Dianne
Additional Author: Cohen
:
Jo-Ann
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

An Integrated Program to Recruit and Retain Women Engineering Students

Resource Title: An Integrated Program to Recruit and Retain Women Engineering Students

Description/Annotation: This paper documents the suite of recruitment and retention programs at Ohio State; several of which were supported, in part, by the Gateway Engineering Education Coalition.

Author Last Name: Abrams
Author First Name: Lisa M.
Additional Author: Fentiman
:
Audeen W.
Publication Date: 2002

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

An Intervention to Address Gender Issues in a Course on Design, Engineering, and Technology for Science Educators

Resource Title: An Intervention to Address Gender Issues in a Course on Design, Engineering, and Technology for Science Educators

Description/Annotation: This paper discusses a course on design, engineering, and technology based on Bandura's theory of self-efficacy that was taught to nine science education graduate students who were also practicing teachers. The interpretive analysis method was used to code and analyze qualitative data from focus groups, weekly reflections on classes and readings, and pre-, post-, and delayed-post course questions. The improvement in tinkering and technical self-efficacies for five males was limited because of initially higher self-efficacies while that for four females was moderate to high, especially when working in same-sex teams in a non-competitive environment. All students also increased their understanding of the societal relevance of engineering and their ability to transfer engineering concepts to precollege classrooms. Implementing the principles employed in this intervention in pre-college science and university engineering classrooms could help recruit students into engineering as well as help retain both male and female undergraduate engineering students.

Author Last Name: Baker

Author First Name: Dale

Additional Author: Krause
:

Additional Author: Yasar

:

Additional Author: Roberts

: Chell
Additional Author: Robinson-Kurpius
: Sharon
Publication Date: 2007, Jul
Page Numbers: 213-226
Publication Title: Journal of Engineering Education
Volume: 96
Issue: 3
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) »
[Retention](#)

An Introductory Course Format for Promoting Diversity and Retention

Resource Title: An Introductory Course Format for Promoting Diversity and Retention

Description/Annotation: This study reports on an introductory computing course offered at a top tier university through its engineering school. Although targeted for students with no prior programming experience, its goals were same as the goals of the other sections. The course enrolled 43 students. They were 49% female, 23% black, and 12% Hispanic. The demographics are different from the typical 1st year class at the school, which is 26% female, 6% black, and 3% Hispanic. Two important pedagogies differentiated the pilot section from other sections: computer availability at all class meetings and the methodology for selecting motivating examples. A priori only one student in the section intended a computing major, but upon completion the students chose a computing major at a higher rate than the rates for other sections: 19% versus 13%. More striking is that 33% of the pilot section women and 27% of its minority students chose a computing major. All students completed the course and no student left the school. These outcomes compare favorably to a school course withdrawal rate

of 12% and a school attrition rate of 10%, a female attrition rate of 12%, and a minority rate attrition of 25%. Funded by NSF GSE under award #0533580.

Author Last Name: Cohoon
Author First Name: James P.
Publication Date: 2007
Page Numbers: 395-399
Publication Title: Proceedings of the 38th SIGCSE technical symposium on Computer science education
Volume: 39
Issue: 1
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

An Investigation of Critical Mass: The Role of Latino Representation in the Success of Urban Community College Students

Resource Title: An Investigation of Critical Mass: The Role of Latino Representation in the Success of Urban Community College Students

Description/Annotation: This 20 page report analyzes the academic success of Latino students in community colleges which are minority-majority, or those with a majority Latino population. Academic success is measured against Latino percentage population, percentage of Latino faculty, age, attitude, English ability and aspiration.

Author Last Name: Hagedorn
Author First Name: Linda Serra
Additional Author: Chi
:
Winny

Additional Author: Cepeda
:
Additional Author: McLain
:
Melissa
Publication Date: 2007, Feb
Page Numbers: 73-91
Publication Title: Research in Higher Education
Volume: 48
Issue: 1
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

An Investigation of Engineering Students' Achievement Goal Orientations in Relation to Gender, Academic Level, Grades, Self-efficacy, and Desire to Pursue a Career in Engineering

Resource Title: An Investigation of Engineering Students' Achievement Goal Orientations in Relation to Gender, Academic Level, Grades, Self-efficacy, and Desire to Pursue a Career in Engineering

Description/Annotation: This 12-page paper from the 2012 WEPAN National Conference details a study of engineering students at James Madison University. In the study, students completed an engineering specific version of the Achievement Goal Orientation (AGO) questionnaire and provided information on self-reported desire to pursue a career in engineering. Results indicated that students' confidence in their ability to be successful in engineering was significantly related to lower work avoidance and higher mastery and performance-approach orientations. Findings from this study could have possible implications for education programs to facilitate adaptive motivational styles in order to bolster student success in engineering. The full conference paper is available in PDF format.

Author Last Name: Casto
Author First Name: Kathleen
Additional Author: Pierrakos
:
Additional Author: Anderson
:
Additional Author: Robin D.
Additional Author: Watson
:
Heather
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-12
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors »
Retention Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM
Career Interest/Awareness

An Investigation of Factors Affecting Elementary Female Student Teachers' Choice of Science as a Major at College Level in Zimbabwe

Resource Title: An Investigation of Factors Affecting Elementary Female Student
Teachers' Choice of Science as a Major at College Level in
Zimbabwe

Description/Annotation: This article focuses on factors affecting elementary female
student teachers' choice of science as a major at college level in
Zimbabwe. The study took place in Zimbabwe at Mkoba
Teachers' College and two groups of elementary female student
teachers participated in the study, namely science majors and
nonscience majors. Out-of-school experiences, culture, and
attitudes toward science emerged as factors affecting female
student teachers' choice of science as a major. A number of
implications have been discussed as well as suggestions for

further research. Limitations of the study have been analyzed as well.

Author Last Name: Mienga
Author First Name: Francis
Publication Date: 2007
Page Numbers: 259-278
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Cultural Influences](#) » [Gendered Occupations](#)
& [Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

An Investigation of Gender Composition on Integrated Project Team Performance: Part III

Resource Title: An Investigation of Gender Composition on Integrated Project Team Performance: Part III

Description/Annotation: This study presents the quantitative results of the investigation that measures the effects of gender composition in integrated project teams and the proportion of women in an organization on two dependent variables: 1) team performance, and 2) team cohesion. The duration of the study was 16 weeks during which two design projects were completed. Team performance was measured using: 1) team quizzes, 2) design demonstrations, 3) peer evaluations, and 4) blind evaluation of team reports. Criteria for project performance included thoroughness of the project report, submission timeliness, compliance to project requirements, and utilization of engineering problem solving skills. Team performance is also assessed through the Team Performance Questionnaire.

Author Last Name: Okudan

Author First Name: Gul E.
Additional Author: Horner
: Donald
Additional Author: Bogue
: Barbara
Additional Author: Devon
: Richard
Publication Date: 2002
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

An Overnight Visitation Program for Incoming Female Engineering Students

Resource Title: An Overnight Visitation Program for Incoming Female Engineering Students

Description/Annotation: This paper presents a program that invites incoming female engineering students to the University of Louisville for an overnight visitation program before fall classes begin. The paper provides information about how this low cost activity has been embraced by the students and has served to recruit and retain young women for the engineering programs at the J.B. Speed School of Engineering.

Author Last Name: Hart
Author First Name: Brenda
Additional Author: Crawford
: Fashaad
Additional Author: McAnulty
: Katheryn

Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Analysis of Applicant Data to Improve Recruitment of Female and Underrepresented Engineering Students

Resource Title: Analysis of Applicant Data to Improve Recruitment of Female and Underrepresented Engineering Students

Description/Annotation: This paper reports the results of a detailed demographic analysis of applicants to the engineering program at Rowan University. The purpose of the analysis was to achieve a more complete understanding of the demographics of the applicants in order to identify data trends related to gender, ethnic background, SAT scores, high school attended, and socioeconomic factors. The data used in the study includes over 4800 applicants to the engineering program from 2000 to 2007. Plans for targeted recruitment efforts resulting from this study are also presented.

Author Last Name: Cleary

Author First Name: Douglas

Additional Author: Riddell

: William

Additional Author: Hartman

: Harriet

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Family Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Analysis of Men and Women Engineering Students at Ohio State

Resource Title: Analysis of Men and Women Engineering Students at Ohio State

Description/Annotation: This paper reports on a study of the 1050 students who entered Ohio State in Autumn 1988 intending to major in engineering.

According to the findings, 34.9% had completed a degree in engineering at Ohio State, 30.8% had completed a degree in some other major at Ohio State, and 34.4% had left Ohio State without completing a degree. Authors conclude that while academic preparedness seems to account for some of the attrition, it accounts for remarkably little of the difference in which students end up in which group.

Author Last Name: Fraser
Author First Name: Jane M.
Additional Author: Ismail
: Dina R.
Publication Date: 1997
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors Educational Factors](#) » [Retention](#)

Analyzing Applicant Data for a Public, Predominantly Undergraduate Engineering Programs to Gain Insight into Diversifying Recruitment

Resource Title: Analyzing Applicant Data for a Public, Predominantly Undergraduate Engineering Programs to Gain Insight into Diversifying Recruitment

Description/Annotation: This paper reports the results of a detailed demographic analysis of applicants and enrollments to a predominantly undergraduate engineering program. The parameters used in the study were gender, ethnicity, standardized test scores, high school class rank and high school grade point average (GPA), high school, and socioeconomic conditions of the area from which the high school draws students. The primary goal of this study was to use applicant, acceptance, and enrollment data to develop strategies for increasing enrollment of underrepresented populations in the engineering program.

Author Last Name: Cleary
Author First Name: Douglas
Additional Author: Riddell
:
Additional Author: Hartman
:
Publication Date: 2010
Page Numbers: 193-213
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 3
Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Admissions Bias](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

And Then There Were None A Report of Interest and Persistence among African American STEM College Students

Resource Title: And Then There Were None A Report of Interest and Persistence among African American STEM College Students

Description/Annotation: This article presents an overview of the history of research on African American students and their historically low participation in the STEM fields. This study is useful in that it provides a rich description of the science knowledge and career decisions of three students. The details uncovered through this examination are useful for researchers in the construction of new and potentially more insightful studies; for schools and community agencies in redesigning service offerings; and for corporate and governmental agencies in modifying and implementing policy.

Author Last Name: Mutegi
Author First Name: Jomo W.

Publisher: Sankore Institute
Publication Date: 2008
Page Numbers: 1-7
Source: Sankore Institute
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Anita Borg Institute for Women and Technology (ABI)

Resource Title: Anita Borg Institute for Women and Technology (ABI)

Description/Annotation: The Anita Borg Institute for Women and Technology (ABI) aims to increase the impact of women on technology while increasing the impact of technology on women. They do this through programs designed to help government, academia, and industry develop women; developing communities where women can connect with one another and find the information they need; and awards, events, and special projects.

Web site Link: [Link to Resource](#)

More: Anita Borg Initiatives: •

- Awards honoring distinguished technical women
- Savvy Geek Chix - brings together technical women interested in building upon their existing networks and gaining key leadership skills to help them achieve their technical vision, advance their careers and become leaders in the technical community.
- Technical Executive Forum - By invitation only, the Forum convenes C-level technology executives in a discussion of the challenges their organizations face in the recruitment, retention, and advancement of technical women and the solutions to these challenges.
- [Grace Hopper Celebration of Women in Computing](#) Conference (and online community)
- Systers - world's largest email community of technical women in computing
- TechLeaders - Annual gatherings and regional workshops explore the future of technology and develop technical

women's leadership skills, networks, and provides resources to help them navigate all stages of their careers.

- Women of Vision Awards - honors women making significant contributions to technology.

Resources:

- News and Research
 - Articles
 - Reports
 - Podcasts
 - Blog entries
 - Columns
 - Newsletters
- Links to outside relevant organizations
- Media center
 - Press releases
 - ABI in the news
 - Media contacts
 - Speaking engagements
- Communication tools
 - Twitter
 - Facebook
 - LinkedIn
 - YouTube - includes speeches from annual conference
 - Blogs
 - Podcasts
 - Wikis
- Calendar of events
- Free newsletter

Site Access Details: Users may access all research and download files at no charge.

Partners and Funding: ABI is a non-profit organization with multiple corporate partners helping to promote their vision. Partners such as Google, Microsoft, HP, Intel, Sun, and many more benefit in turn from ABI's programs to recruit, retain, and advance talented women in technology. Numerous other opportunities to support ABI are available, including being identified as an affiliate and volunteering. Research projects are supported by many government and private sponsors.

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment

Resource Title: Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment

Description/Annotation: A 141-page report on a study by the Office of Educational Research and Improvement at the U.S. Department of Education. Based on a quantitative study of factors that affect completion of bachelor's degrees using long-term tracking of students through transcripts and other indicators of progress toward bachelor's degrees. Valuable in the presentation of factors that were found to affect bachelor's degree attainment, including students' high school preparation and college enrollment patterns. Offers conclusions to affect measurement of graduation rates, policies toward remediation, and recruitment practices at an institutional level. Includes best-practice suggestions to guide research and evaluation in higher education.

Author Last Name: Adelman

Author First Name: C.

Publisher: Ed Pubs, Jessup

Publisher Location: MD

Publication Date: 1999

Page Numbers: 1-141

Source: ERIC

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Antecedent Factors Differentiating Women and Men in Science/Nonscience Careers

Resource Title: Antecedent Factors Differentiating Women and Men in Science/Nonscience Careers

Description/Annotation: Factors that differentiate women and men who choose a science career from those who do not were investigated using longitudinal data from 1980 and 1990. Women in science compared to women in other careers were significantly more likely to value math and science for their future career goals, whereas men in science compared to men in other careers had significantly higher high

school grade point averages in natural science and higher career aspirations.

Author Last Name: Farmer
Author First Name: Helen S.
Additional Author: Wardrop
:
Additional Author: Rotella
:
Additional Author: Susanne C.
Publication Date: 1999, Dec
Page Numbers: 763-780
Publication Title: Psychology of Women Quarterly
Volume: 23
Issue: 4
Source: Sage
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual](#)
[Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and](#)
[Behaviors](#) » [STEM Career Interest/Awareness](#)

Appalachian Information Technology Extension Project

Resource Title: Appalachian Information Technology Extension Project
Description/Annotation: Through the NSF-funded Appalachian Information Technology Extension Services (AITES) grant, Family and Consumer Science (FCS) professionals are utilizing an Extension model to solve an Information Technology (IT) talent crisis for girls. The goal is to increase community capacity over five years in five states in rural Appalachia through a sustainable program of change concentrating not on the girls, but by mobilizing the social capital in their lives. In the first year approximately 365 parents, teachers, and counselors were involved in at least one session provided by the Virginia Community Cohort Teams of middle and high school teachers and counselors and FCS and 4H Agents. FCS professionals are pioneering an innovative model to build

community capacity and social capital that brings more females into the IT career pipeline. The model builds on the commitment of the profession to empower communities and also becomes an economic development, workforce development, and human development engine. Funded by NSF GSE under award #0832913.

Author Last Name: Meszaros
Author First Name: Peggy S.
Additional Author: Sobrero
: Patricia
Additional Author: Schneider
: Sandra
Additional Author: Lane
: Crystal Duncan
Additional Author: Hastings
: Shirley
Publication Date: 2012
Page Numbers: 91-104
Publication Title: International Journal of Technology, Knowledge, and Society
Volume: 7
Issue: 5
Source: CG Publisher
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career Factors](#) » [Professional](#)
[Development Publications by Funder](#)

Applying Research to Practice Series (ARP)

Resource Title: Applying Research to Practice Series (ARP)
Description/Annotation: ARP Resources offer practical overviews of research related to STEM outreach and education. ARPs have three parts--an abstract, a 2 page practitioner's guide, and a longer overview of the research.

ARPs provide an ideal way to access research literature in a variety of topics including self-efficacy, stereotype threat, girls' experiences in education, mentoring, and more. They are a collaborative project of the SWE AWE Project and the Center for the Advancement of Scholarship on Engineering Education (CASEE) of the National Academy of Engineering.

Web site Link: [Link to Resource](#)

More: Use ARP resources to

- discover the research behind best practices
- find out what works as you create or retool events or activities
- build your knowledge base
- add new dimensions to your events and programs
- grow your professional capacity

Resources: Resources include:

- Abstracts - Brief descriptions of the literature overview and the information sheet.
- Information Sheets - Practical user guides to help practitioners apply research in engineering outreach and classrooms.
- Research Overviews - More in-depth overview of related research for program and activity development, proposals, reports and to build your knowledge base,

Site Access Details: This site is publicly accessible.

Partners and Funding: SWE, NAE/CASEE under NSF Grant #01210642 and #0533520.

Contact E-mail: awe@enr.psu.edu

Last Update Date: May 26, 2013

Resource Type Categories: Database/Tool » Research Tools Topical Categories: Career Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Approaches to Biology Teaching and Learning: From a Scholarly Approach to Teaching to the Scholarship of Teaching

Resource Title: Approaches to Biology Teaching and Learning: From a Scholarly Approach to Teaching to the Scholarship of Teaching

Description/Annotation: This article presents three scenarios offered as illustrations of situations in which scientists who teach are poised at the brink of finding value in the principles and practices that constitute what is an emerging area of scholarship: the scholarship of teaching. Funded by NSF GSE under award #0337949.

Author Last Name: Allen

Author First Name: Deborah

Additional Author: Tanner

: Kimberly

Publication Date: 2005

Page Numbers: 1-6

Publication Title: CBE- Life Sciences Education

Volume: 4

Issue: 1

Source: Life Sciences Education

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Approaches to Biology Teaching and Learning: Learning Styles and the Problem of Instructional Selection-Engaging All Students in Science Courses

Resource Title: Approaches to Biology Teaching and Learning: Learning Styles and the Problem of Instructional Selection-Engaging All Students in Science Courses

Description/Annotation: Teachers aspire to have all of their students learn. This aspiration of reaching all students spans disciplines, age levels, and all varieties of institutions. Most teachers do so out of a genuine love for their discipline and a desire to share the wonder of their chosen field with others. Science teaching is no different than other disciplines in this respect. However, the lack of diversity apparent in the statistics of who chooses to pursue scientific disciplines professionally suggests that educators still have much

to learn about how to reach all students. To provide open access to science learning and encourage a broader spectrum of students to pursue studies in the sciences, educators must begin to address the diversity of learning styles among the students in our classrooms. This article describes various approaches to biology teaching and learning. Funded by NSF GSE under award #0337949.

Author Last Name: Tanner
Author First Name: Kimberly
Additional Author: Allen
:
Deborah
Publication Date: 2004
Page Numbers: 197-201
Publication Title: CBE- Life Sciences Education
Volume: 3
Issue: 4
Source: Life Sciences Education
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Approaches to Biology Teaching and Learning: On Integrating Pedagogical Training into the Graduate Experiences of Future Science Faculty

Resource Title: Approaches to Biology Teaching and Learning: On Integrating Pedagogical Training into the Graduate Experiences of Future Science Faculty

Description/Annotation: Encouragingly, more than 80% of graduate students pursuing their doctoral degree were interested in seeking a faculty position because of their interests in and often passion for teaching. Given this strong interest among doctoral students, the need to train

future science faculty in the art of teaching and, most importantly, the critical need to reform undergraduate science education, it would seem that integration of pedagogical development into the graduate science training experience would be beneficial on multiple fronts. There has already been a recognition of the need to better prepare graduate teaching assistants, and a variety of strategies have been proposed and tried across many disciplines to provide support for these faculty-in-training as they participate in educating undergraduate students. In this article, the authors consider some alternative approaches to integrating pedagogical development into the training of future scientists as well as progressive steps toward improving the traditional teaching assistantship. Funded by NSF GSE under award #0337949.

Author Last Name: Tanner
Author First Name: K.D.
Additional Author: Allen
:
Publication Date: 2006
Page Numbers: 1-6
Publication Title: CBE- Life Sciences Education
Volume: 5
Issue: 1
Source: Life Sciences Education
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Are Engineering and Computer Science Women Students Good Predictors of their Semester GPA?

Resource Title: Are Engineering and Computer Science Women Students Good Predictors of their Semester GPA?
Description/Annotation: Academic Success Seminar engineering and computer science students' percentage estimates of their use of the "Guaranteed 4.0

Plan” are compared with their GPA average for the semester. The predicted GPA is then compared with the actual GPA. Prediction accuracy is compared by gender and ethnicity.

Author Last Name: Anderson-Rowland
Author First Name: Mary Ruth
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Are Your Engineers Talking to One Another When They Should?

Resource Title: Are Your Engineers Talking to One Another When They Should?
Description/Annotation: A 9-page article that talks about specific costs of a lack of communication among engineers, both in terms of finances and lost time, and some suggestions for improving communication, based on the author's research conducted at Pratt & Whitney. Primarily oriented toward management-level audiences.

Author Last Name: Sosa
Author First Name: Manuel E.
Additional Author: Eppinger
: Steven D.
Additional Author: Rowles
: Craig M.
Publication Date: 2007
Page Numbers: 133-142
Publication Title: Harvard Business Review
Volume: 83

Issue: 11
Source: PubMed
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Argonne National Laboratory's Introduce a Girl to Engineering Day

Resource Title: Argonne National Laboratory's Introduce a Girl to Engineering Day

Description/Annotation: This paper explains the organizational process that took place to create Argonne National Laboratory's "Introduce a Girl to Engineering Day" (IGED), held for the first time in February 2002. IGED utilizes job shadowing as a means to reach out to middle school aged girls and provides positive role models of women engineers. The program enables women engineers to connect with the next generation and share their passion for applying scientific and mathematical principles to solving difficult problems. The full paper is available in PDF format.

Author Last Name: Quock

Author First Name: Deborah E. R.

Additional Author: Laurin-Kovitz
: Kirsten F.

Additional Author: Bhattacharyya
: Maryka H.

Publisher: University of Chicago

Publisher Location: Chicago, IL

Publication Date: 2003, Jun

Page Numbers: 1-5

Publication Title: WEPAN 2003 Conference Proceedings

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Arizona State University CareerWISE

Resource Title: Arizona State University CareerWISE

Description/Annotation: This website offers good career and professional information to women PhD graduates. Women can join CareerWISE and learn how to apply the latest social science research to their everyday career challenges, building personal resilience skills. Offers the CareerWISE Problem Solving method and career coaching to help women build resilient and successful careers in science and engineering.

Web site Link: [Link to Resource](#)

Resources: Specific website sections include:

- Solve - this section is intended to share the CareerWISE problem solving method, which includes the following stages: problem assessment; specifying the desired outcome; strategizing; and execution and evaluation. This method is intended to increase personal and professional resiliency in women in STEM careers.
- Learn - subsections include: Understand Yourself ; Understand the Context; and Skills.
- Watch - a collection of topical videos that relate to a variety of critical topics, including: Advisor Issues; Climate; Balance; and Delays and Setbacks. Video materials are viewable by topic, speaker, or speaker's discipline.

Site Access Details: To join the community and gain full access, individuals must fill out a brief registration section, which offers immediate access after completion. Joining CareerWISE is free to all.

Partners and Funding: Although the site is primarily hosted through Arizona State University, the Advisory Board includes members from the University of Iowa and Carnegie-Mellon. The site is funded in part by the National Science Foundation.

Contact Name: Bianca L. Bernstein

Contact E-mail: bbernstein@asu.edu

Last Update Date: July 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process

Resource Title:	As Balancing Act and As Game: How Women and Men Science Faculty Experience the Promotion Process
Description/Annotation:	Study of male and female science faculty perceptions of how their domestic responsibilities impact the promotion process at a research university.
Author Last Name:	Gunter
Author First Name:	Ramona
Additional Author:	Stambach
:	Amy
Publication Date:	2003
Page Numbers:	24-42
Publication Title:	Gender Issues
Volume:	21
Issue:	1
Source:	SpringerLink
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

ASEE Data Mining Tool

Resource Title:	ASEE Data Mining Tool
Description/Annotation:	The ASEE "Engineering Data Management System" also called the ASEE "Data Mining" tool, contains information from over 370 institutions offering programs in undergraduate and graduate engineering and engineering technology. Reports can be run for 1998 to 2011 and can be downloaded to .csv formatted files, which can be opened in MS Excel.

More: Please refer to [/wepan](#) for instructions on accessing the ASEE Data Mining tool.

Resources:

Major Functions include:

- Quick Query allows you to run reports for a single year for targeted disciplines, departments or degree programs.
- In Run Reports you'll find we've created some standard groups and reports under menus for ASEE Groups and ASEE Reports. Run these or create your own.
- Manage Groups allows you to create your own peer groups. You can also edit the ASEE Generated Groups and save the new version as your own. The same approach holds true with Manage Reports, where you can create your own reports by selecting from a large number of data fields.

Site Access Details: This program is provided as a service to deans of engineering and engineering technology colleges who annually contribute data to ASEE's database.

Partners and Funding: The Data Management System is a product of the ASEE organization.

Contact Name: Brian Yoder

Contact E-mail: b.yoder@asee.org

Last Update Date: August 12, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

ASEE PRISM Magazine search tool

Resource Title: ASEE PRISM Magazine search tool

Description/Annotation: PRISM is the magazine publication from ASEE covering engineering education in the U.S. published nine times a year (monthly Sept through April). Topics include: New instructional methods, Innovative curricula, Lifelong learning, Research opportunities, trends, and developments, Education and research projects with government and industry and K-12 outreach activities that encourage youth to pursue studies and careers in engineering.

Author Last Name: ASEE

Source: ASEE (posted with permission)
Database Name: PRISM
Source Type: Database

Resource Type Categories: Database/Tool » Database Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Asian Americans and Pacific Islanders – Facts, Not Fiction: Setting the Record Straight

Resource Title: Asian Americans and Pacific Islanders – Facts, Not Fiction: Setting the Record Straight

Description/Annotation: Report focuses on three pervasive myths about the Asian American and Pacific Islander community, which are examined in the context of empirical data. In addition, three issues of emerging importance are presented to highlight new conversations that are surfacing among educators on college campuses.

Author Last Name: National Commission on Asian American and Pacific Islander Research in Education

Publisher: National Commission on Asian American and Pacific Islander Research in Education

Publication Date: 2008

Page Numbers: 44

Source: College Board

Source Type: Full text

Resource Type Categories: Data and Statistics » Reports Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

Asian and Pacific Islander Women Scientist and Engineers: A Narrative Exploration of Model Minority, Gender, and Racial Stereotypes

Resource Title: Asian and Pacific Islander Women Scientist and Engineers: A Narrative Exploration of Model Minority, Gender, and Racial Stereotypes

Description/Annotation: This 22-page article analyzes interviews with four Chinese and Japanese women. The women struggled with Asian pressures to be "compliant, feminine, and educated enough to be marriageable," regardless of their parents' backgrounds and how many generations had lived in America. The author encourages educators to be aware that Asian women face many cultural barriers and not to marginalize them.

Author Last Name: Chinn

Author First Name: Pauline

Publisher: Wiley Periodicals, Inc.

Publication Date: 2002-Apr

Page Numbers: 302-333

Publication Title: Journal of Research in Science Teaching

Volume: 39

Issue: 4

Source: University of Minnesota

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Ask a Working Women Survey 2008

Resource Title: Ask a Working Women Survey 2008

Description/Annotation: A brief overview of a survey done by 20,000 working women asking them what they need most related to their jobs and life balance. Topics covered range from pay, how much time off, how much time women spent on themselves, and the gender gap. For women in the workforce.

Author Last Name: AFL-CIO

Publisher: Working America, Community Affiliate of the AFL-CIO

Publisher Location: Washington, D.C.
Publication Date: 2008
Page Numbers: 1
Source: APWU
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Ask For It: How Women Can Use the Power of Negotiation to Get What They Really Want

Resource Title: Ask For It: How Women Can Use the Power of Negotiation to Get What They Really Want

Description/Annotation: As a follow up to the authors book *Women Don't Ask*, this book explains that women don't do as well as their male counterparts because they don't ask for what they want. The book outlines a program to help women determine what they are worth and negotiate to receive it. Excellent tool for women and men alike in the workplace and in life.

Author Last Name: Babcock
Author First Name: Linda
Additional Author: Laschever
:
Sara
Publisher: Bantam Dell
Publisher Location: New York, NY
Publication Date: 2008, Feb
Page Numbers: 336
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Negotiation Skills

Assessing Academic Climate Change in Gender Diversity in the Areas of Science and Engineering

Resource Title: Assessing Academic Climate Change in Gender Diversity in the Areas of Science and Engineering

Description/Annotation: This paper presents results of two climate surveys conducted at an institution of higher education as an evaluation effort of the effectiveness of the National Science Foundation's ADVANCE initiative, the purpose of which is to facilitate academic climate change in the areas of science and engineering.

Author Last Name: Ryabov

Author First Name: Igor

Additional Author: Wang

: Guang-Zhen

Publication Date: 2011

Page Numbers: 371-388

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 17

Issue: 4

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Career Factors » Organizational Culture Career Factors » Retention

Assessing an Engineering Day Camp for Middle-School Girls

Resource Title: Assessing an Engineering Day Camp for Middle-School Girls

Description/Annotation: This paper discusses the Future Engineers' Summer Camp, an engineering day camp for middle-school girls, is a week-long day camp containing hands-on, minds-on activities spanning a range

of engineering disciplines. Evaluation and assessment tools including a retrospective survey, evaluation cards, and focus groups are used to evaluate the camp's activities and determine effectiveness in increasing girls' knowledge of and attitudes and aspirations toward engineering.

Author Last Name: Weavers
Author First Name: Linda K.
Additional Author: Bautista
: Dianne T.
Additional Author: Williams
: Margaret E.
Additional Author: Moses
: Megan D.
Additional Author: Marron
: Corin A.
Publication Date: 2011, Jul
Page Numbers: 127-134
Publication Title: Journal of Professional Issues in Engineering Education and Practice
Volume: 137
Issue: 3
Source: ASCE
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

Assessing and Improving the Below Average Visualization Abilities of a Group of Minority Engineering and Technology Students

Resource Title: Assessing and Improving the Below Average Visualization Abilities of a Group of Minority Engineering and Technology Students

Description/Annotation: This paper discusses an ongoing study which found that a particular sample of minority engineering and technology students at a historically black university scored statistically significantly lower than average on the Purdue Spatial Visualization Test: Visualization of Rotations when administered as a pretest in a 2D-focused mechanical drawing course. The posttest scores of these same subjects, after a semester of instruction, were still not up to average. Because of the inadequate increase in posttest scores, remediation that focused on sketching and other exercises to improve visualization was implemented in subsequent offerings of the course. The posttest scores of those students receiving remediation improved to bring the mean up to average.

Author Last Name: Study

Author First Name: Nancy E.

Publication Date: 2006

Page Numbers: 367-380

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 12

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Assessing Elementary School Students' Conceptions of Engineering and Technology

Resource Title: Assessing Elementary School Students' Conceptions of Engineering and Technology

Description/Annotation: This research paper, from the proceedings of the 2005 American Society for Engineering Education (ASEE) Annual Conference & Exposition, reports the creation of one instrument developed to probe the basic concept of "what do students think technology and

engineers are?". The paper presents statistical data from 500 K-12 students who have completed the survey. Results indicate that most students have a limited, and often incorrect view of what engineers are and what technology is. The full paper is available in PDF format.

Author Last Name: Cunningham
Author First Name: Christine M.
Additional Author: Lachapelle
:
Cathy
Additional Author: Lindgren-Streicher
:
Anna
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2005
Publication Title: Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition
Source: Museum of Science (MOS)
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Assessing Girls' Reactions to Science Workshops

Resource Title: Assessing Girls' Reactions to Science Workshops
Description/Annotation: This paper evaluated fifth grade girls' perceptions of a 1-day science education program. Students attended workshops describing different science fields. Study 1 revealed that attending the workshops increased students' interest in the specific field covered in the workshop. However, even after attending the workshops, students did not believe women typically entered those various fields. A second year evaluation revealed that most students agreed they had learned about individual tasks that scientists do in the various fields. However, significantly fewer believed they learned about educational requirements, problems

women might face in the field, or how science can be used to help people. Results are discussed in terms of potential factors that workshop presenters might want to consider in future programs.

Author Last Name: Yanowitz
Author First Name: Karen L.
Additional Author: Vanderpool
:
Staria S.
Publication Date: 2004, Sep
Page Numbers: 353-359
Publication Title: Journal of Science Education and Technology
Volume: 13
Issue: 3
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal](#)
[Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Assessing the Role of Gender Rejection Sensitivity, Identity, and Support on the Academic Engagement of Women in Nontraditional Fields using Experience Sampling Methods

Resource Title: Assessing the Role of Gender Rejection Sensitivity, Identity, and Support on the Academic Engagement of Women in Nontraditional Fields using Experience Sampling Methods

Description/Annotation: Efforts to understand and alleviate the pervasive underrepresentation of women in science, technology, engineering, and mathematics (STEM) fields may benefit from the utilization of research methodologies that can model STEM engagement from multiple levels of analysis. This article discusses the utility of experience sampling methodology (ESM) in capturing this broad range of factors that contribute to women's success and engagement in STEM fields—as well as other fields

in which women have historically been underrepresented—with special focus on the importance of identity, social support, and gender-based rejection. We propose that the use of ESM may provide fine-grained details of women's STEM experiences, and thus model the challenges they face in STEM fields. The advantages of using ESM for capturing repeated measures of affect and behavior, the use of electronic methods of data collection, and the use of ESM to administer interventions are discussed. Funded by NSF GSE under award #1036427.

Author Last Name: London
Author First Name: Bonita
Additional Author: Rosenthal
:
Additional Author: Gonzalez
:
Publication Date: 2011
Page Numbers: 510-530
Publication Title: Journal of Social Issues
Volume: 67
Issue: 3
Source: Wiley
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Career Factors Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-
GSE Publications by Funder Career Factors » Retention Individual Beliefs and Behaviors » Self-
perception Career Factors » Stereotype Threat

Assessing Women & Men in Engineering (AWE)

Resource Title: Assessing Women & Men in Engineering (AWE)
Description/Annotation: AWE, the Assessing Women and Men in Engineering Project, provides assessment tools for people involved in K-16 formal and informal educational outreach activities. AWE assessment tools provide researchers and evaluators with high quality data and the possibility of meta-data based on comparisons of responses to

consistent quantitative surveys from a variety of organizations or activities.

Web site Link: [Link to Resource](#)

More: AWE surveys are designed for use by implementers of SET educational activities that reach out to both pre-college and college participants, university and college-level administrators, faculty and directors of Women in Engineering and other professional or co-curricular programs.

Resources: AWE Resources include:

- Diversity Surveys
- Retention Surveys
- Classroom Environment Surveys
- Pre-College Recruiting Surveys
- Assessment Resources
- Implementation Tools
- [Applying Research to Practice Series \(ARP\)](#)

Site Access Details: All products are available upon completing a brief, free registration.

Partners and Funding: AWE started as an NSF-funded project and is now a part of SWE, the Society of Women Engineers.

Contact E-mail: awe@engr.psu.edu

Last Update Date: May 21, 2013

Resource Type Categories: [Database/Tool](#) » [Research Tools Database/Tool](#) » [Surveys](#) Topical Categories: [Educational Factors Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Informal Academic Preparation](#)

Assessing Women in Engineering (AWE): Assessment Results on Women Engineering Students Beliefs

Resource Title: Assessing Women in Engineering (AWE): Assessment Results on Women Engineering Students Beliefs

Description/Annotation: This paper reports the development and early results of a survey undertaken as part of the National Science Foundation-funded Assessing Women in Engineering (AWE) project. The instrument is designed to measure undergraduate women students' self-efficacy in studying engineering. Self-efficacy is "belief in one's capabilities to organize and execute the sources of action necessary to manage prospective situations". In this project, researchers developed a survey instrument designed to measure

self-efficacy in engineering, feelings of inclusion and outcomes expectations, and collected responses from undergraduate women studying engineering at four institutions: Penn State University (PSU), Georgia Institute of Technology (GA Tech), University of Texas – Austin (UT Austin) and Rensselaer Polytechnic Institute (RPI). Funded by NSF GSE under award #0120642.

Author Last Name: Marra
Author First Name: Rose M.
Additional Author: Moore
:
Cherith
Additional Author: Schuurman
:
Mieke
Additional Author: Bogue
:
Barbara
Publication Date: 2004
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Assessment of Gender Differences on Ratings of Engineering Learning Modules in Middle-School Youth in an After-school Setting

Resource Title: Assessment of Gender Differences on Ratings of Engineering Learning Modules in Middle-School Youth in an After-school Setting

Description/Annotation: This paper presents statistical analyses of gender differences between youths' ratings of six engineering modules implemented in the Techtronics after-school program at Rogers Herr Middle School in Durham, North Carolina.

Author Last Name: Kelly
Author First Name: Glenda
Additional Author: Klenk
:
Additional Author: Ybarra
:
Additional Author: Cox
:
Additional Author: Lee Ann
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Assessment of the Chilly College Climate for Women

Resource Title: Assessment of the Chilly College Climate for Women
Description/Annotation: Study of two undergraduate in-class surveys analyzing perceptions of class climate. Female faculty were more likely to create a participatory learning climate that benefits all students.
Author Last Name: Heller
Author First Name: Jack
Publisher: The Ohio State University Press
Publisher Location: Columbus, OH
Publication Date: 1985
Page Numbers: 446-461
Publication Title: Journal of Higher Education
Volume: 56
Issue: 4

Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Assessment Tools in Informal Science (ATIS)

Resource Title: Assessment Tools in Informal Science (ATIS)

Description/Annotation: ATIS is a searchable website of assessment tools to measure performance of informal and out-of-school science, technology, engineering and math (STEM) programs. The goal of ATIS is to provide practitioners, evaluators, researchers and policy makers with the information to choose appropriate tools for assessing program quality and outcomes for children and youth.

Web site Link: [Link to Resource](#)

More: PEAR (Program in Education, Afterschool and Resiliency) located at Mclean Hospital and Harvard Medical School, reviewed existing tools and published the findings in a report titled "Toward a Systematic Evidence-Base for Science in Out-of-School Time: The Role of Assessment". This ATIS website is based on the findings of that report and will be continuously updated in collaboration with the Youth Development Researchers at 4-H.

Resources: The ATIS database allows user to search assessment tools according to:

- Age
 - Pre-K
 - Elementary
 - Middle school
 - High school
 - College
 - Adult
- Domain
 - Competence and reading
 - Engagement/interest
 - Attitude/behavior
 - Content/knowledge
 - Career knowledge/acquistion
- Assessment Type

- Drawing
- Interview
- Point Scale
- Multiple choice
- Short response
- Extended response
- Custom Criteria Search

Site Access Details: This is a publicly accessible site.

Partners and Funding: ATIS is funded by the Noyce Foundation and is managed by PEAR located at Mclean Hospital and Harvard Medical School. ATIS is overseen by an advisory board.

Contact E-mail: pear@mclean.harvard.edu

Last Update Date: July 26, 2013

Resource Type Categories: [Database/Tool](#) » [Research Tools](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Association for the Advancement of Computing in Education (AACE)

Resource Title: Association for the Advancement of Computing in Education (AACE)

Description/Annotation: AACE is an international, not-for-profit, educational organization with the mission of advancing Information Technology in Education and E-Learning research, development, learning, and its practical application.

Web site Link: [Link to Resource](#)

More: Its members, conference participants, and journal readers include researchers, developers, professors, trainers, administrators, directors, evaluators, graduate students, policy decision-makers, trainers, adult educators, practitioners, and other specialists in education, industry, and government.

Resources: The AACE website provides a wealth of information to the IT profession, including:

- Conferences
- Publications
- Digital Library
- Career Center
- Networking

Site Access Details: This is a publicly accessible site.
Partners and Funding: AACE is a non-profit organization.
Contact E-mail: info@aace.org
Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#)

Association for Women in Science (AWIS)

Resource Title: Association for Women in Science (AWIS)

Description/Annotation: AWIS is a national advocacy organization championing the interests of women in science, technology, engineering, and mathematics across all disciplines and employment sectors.

Web site Link: [Link to Resource](#)

More: AWIS advocates for initiatives that will result in better public programs and employment policies that will benefit women in STEM.

Their nationwide network of chapter offer leadership and professional development opportunities perform outreach out to local schools and community programs as role models and mentors for girls in K-12 as they prepare to pursue careers in STEM disciplines.

Resources: Resources include:

- Statistics
- The Washington Wire - bi-monthly electronic newsletter that collects and distributes timely reports on science policy, science education, career issues and funding opportunities for women in STEM.
- Organizational links for STEM disciplines, women's policy organizations and resources for working mothers
- Career Center
- Professional coaching program, Workshops and Teleseminars
- Undergraduate scholarships and Fellows Program awards

Site Access Details: The site has publicly accessible areas as well as a members-only area.

Partners and Funding: AWIS is membership-based association with corporate and institutional partnerships.

Contact Name: Janet Bandows Koster

Contact E-mail: koster@awis.org

Last Update Date: May 20, 2009

Resource Type Categories: Website/Portal Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Association of American Colleges and Universities (AAC&U)

Resource Title: Association of American Colleges and Universities (AAC&U)

Description/Annotation: AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Through its publications, meetings, public advocacy, and programs, AAC&U provides a powerful voice for liberal education.

Web site Link: [Link to Resource](#)

More: Founded in 1915, AAC&U now comprises more than 1,250 member institutions—including accredited public and private colleges, community colleges, and universities of every type and size.

Resources: The AAC&U website offers information on programs, publications, and meetings regarding:

- Liberal Education
- General Education
- Curriculum
- Faculty Work
- Student Success
- [Institutional and Systemic Change](#)
- Assessment
- Diversity and Inclusive Excellence
- Civic Learning
- [Women](#)
- Global Learning
- Science & Health

Site Access Details: This is a publicly accessible site.

Partners and Funding: Members of AAC&U participate in the association's governance through the board of directors.

Contact Name: Dennis Renner
Contact E-mail: memberservices@aacu.org
Last Update Date: July 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Astronomy Enrollments and Degrees

Resource Title: Astronomy Enrollments and Degrees

Description/Annotation: This 14-page report presents findings from the 2009 & 2010 Surveys of Physics & Astronomy Enrollments and Degrees. The report contains data obtained from degree-granting astronomy departments in the United States, including degrees for the class of 2010 and enrollments from the fall of 2010. Trend data at both the undergraduate and graduate levels are covered, including data on gender and citizenship. Results indicated that the number of students taking an introductory astronomy course reached an all-time high and astronomy graduate student enrollments continue to steadily rise.

Author Last Name: Nicholson

Author First Name: Starr

Additional Author: Mulvey
: Patrick

Publisher: AIP Statistical Research Center

Publisher Location: College Park, MD

Publication Date: 2011, Dec

Page Numbers: 1-14

Publication Title: Focus On

Volume: 2011

Issue: December

Source: AIP

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Astronomy Degree Recipients: Initial Employment

Resource Title: Astronomy Degree Recipients: Initial Employment

Description/Annotation: This 12-page report from the American Institute of Physics (AIP) details the initial employment outcomes of new astronomy bachelor's degree recipients, master's degree recipients, and doctorates from the classes of 2007, 2008 and 2009 combined. The report summarizes the findings of a survey of recent degree recipients administered in the winter following the academic year in which they received their degrees. The report includes date and figures on initial employment by type of position, sector, field, starting salaries, and employment status. Results indicate that about half of new astronomy bachelor's recipients entered the workforce after earning their degrees, with the private sector employing the largest proportion of the newly employed graduates.

Author Last Name: Mulvey

Author First Name: Patrick

Additional Author: Shindel

: Brandon

Publisher: AIP Statistical Research Center

Publisher Location: College Park, MD

Publication Date: 2011, Dec

Page Numbers: 1-12

Publication Title: Focus On

Volume: 2011

Issue: December

Source: AIP

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Athena Unbound: The Advancement of Women in Science and Technology

Resource Title:	Athena Unbound: The Advancement of Women in Science and Technology
Description/Annotation:	Seminal work discusses why there are so few women in science based on interviews and surveys of students, faculty and children. Focusing on science academics, it hilights the issues of exclusion, bias and gender-based barriers across the female scientist's education and work "life-course". Relays the complexity of the issue and offers initiatives for change.
Author Last Name:	Etzkowitz
Author First Name:	Henry
Additional Author:	Kemelgor
:	Carol
Additional Author:	Uzzi
:	Brian
Publisher:	Cambridge University Press
Publication Date:	2000
Page Numbers:	292
Source:	Google Book
Source Type:	Partial text, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Professional Development Career Factors » Retention

Attitude Toward Informal Science and Math: a Survey of Boys and Girls Participating in Hands-On Science and Math (Funtivities)

Resource Title:	Attitude Toward Informal Science and Math: a Survey of Boys and Girls Participating in Hands-On Science and Math (Funtivities)
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Description/Annotation: This article presents results from two studies conducted as part of the evaluation activities of the FUNTIVITIES project, a National Science Foundation (NSF)-funded project to increase girls' and women's interest and comfort level in science and math. The first study was conducted to develop instruments and to assess the impact of informal activities on attitudes toward hands-on science, math, and gender-related issues.

Author Last Name: Teshome

Author First Name: Yalem

Additional Author: Maushak

: Nancy

Additional Author: Athreya

: Krishna

Publication Date: 2001

Volume: 7

Issue: 1

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Attitude, Achievement, and Gender in a Middle School Science-Based Ludic Simulation for Learning

Resource Title: Attitude, Achievement, and Gender in a Middle School Science-Based Ludic Simulation for Learning

Description/Annotation: This study examined the learning experiences of 478 middle school science students using a problem-based ludic simulation over a 3-week period to learn space science. Findings from both quantitative and qualitative data revealed that use of the simulation supported student learning and that knowledge gains helped reduce gender-based achievement gaps between boys and girls in the subject matter. Student attitude was additionally linked to learning success while using the simulation. These findings suggest that student engagement and self-recognition of progress

and learning are important design factors when developing problem-based learning experiences.

Author Last Name: Kimmons
Author First Name: R.
Additional Author: Liu
:
Additional Author: Kang
:
Additional Author: Santana
:
Publication Date: 2012
Page Numbers: 341-370
Publication Title: Journal of Educational Technology Systems
Volume: 40
Issue: 4
Source: University of Texas
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Attitudes and Interests Among University Students in Introductory Nonmajor Science Courses: Does Gender Matter?

Resource Title: Attitudes and Interests Among University Students in Introductory Nonmajor Science Courses: Does Gender Matter?

Description/Annotation: Attitudes toward science may develop as early as middle school and often differ between genders. Do these gender-based differences in attitude persist into the college years? In a survey of 376 university students, male students reported a stronger self-concept, more motivation, and more enjoyment of science than

did female students, and female students reported more anxiety toward science than did male students.

Author Last Name: Desy
Author First Name: Elizabeth
Additional Author: Peterson
:
Additional Author: Brockman
:
Additional Author: Vicky
Publication Date: 2009, Nov
Page Numbers: 16-23
Publication Title: Journal of College Science Teaching
Volume: 32
Issue: 2
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Attitudes Toward Gender, Work, and Family among Female and Male Scientists in Germany and the United States

Resource Title: Attitudes Toward Gender, Work, and Family among Female and Male Scientists in Germany and the United States

Description/Annotation: This research examined a comparative approach and an elite framework to look at attitudes toward gender, work, and family among male and female scientists. The data came from the 1994 International Social Survey Program module measuring family and changing gender roles in (the former) East Germany, West Germany, and the United States. Research questions focused on the variation between the three samples in male scientists' attitudes regarding gender, work, and family; women's

representation in science occupations; and the relation between the two.

Author Last Name: Hanson
Author First Name: Sandra L.
Additional Author: Fuchs
:
Stefan
Additional Author: Aisenbrey
:
Silke
Additional Author: Krevets
:
Natalyia
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Attracting and Retaining Females and Minority Students into Technology

Resource Title: Attracting and Retaining Females and Minority Students into Technology
Description/Annotation: Description of Purdue Diversity Office recruiting and retention programs for female and multi-cultural students in Technology from 2004 - 2008. Diverse programs for middle school through undergraduate students described along with enrollment results.
Author Last Name: Harriger
Author First Name: Alka

Additional Author: Munguia
:
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 8
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) »
[Retention](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Attracting and Retaining Women in Computer Science and Engineering: Evaluating the Results

Resource Title: Attracting and Retaining Women in Computer Science and Engineering: Evaluating the Results

Description/Annotation: This paper describes the efforts and results of a plan for actively recruiting young women into undergraduate computer engineering and computer science programs hosted by the University of North Texas (UNT). It also describes a series of activities aimed at improving the retention rate of students already in programs, particularly during the freshman year.

Author Last Name: Keathly
Author First Name: David
Additional Author: Akl
:
Robert
Additional Author: Garlick
:
Ryan
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Attracting Female Students to Engineering and Science Programs through a Partnership with Girl Scouts of America

Resource Title: Attracting Female Students to Engineering and Science Programs through a Partnership with Girl Scouts of America

Description/Annotation: This paper discusses a workshop held at Christian Brothers University School of Engineering for the local Girl Scouts of America as a way to increase exposure of girl scouts to opportunities in engineering and science. Girl scouts were targeted for the workshop because of the commitment of the Girl Scouts of America to providing quality experiences for the scouts. The scouts gathered at the Nolan Engineering Center on the CBU campus and spent the afternoon competing in impromptu design competitions and attending computer demonstrations. Fourteen eighth and ninth grade girl scouts, two scout leaders and one mother attended the engineering workshop held at CBU.

Author Last Name: McGinnis

Author First Name: R. Eugene

Additional Author: Roberts

: Denise Theobald

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Attracting girls to science, engineering and technology: an Australian perspective

Resource Title:	Attracting girls to science, engineering and technology: an Australian perspective
Description/Annotation:	This paper describes a project undertaken by the school outreach team at the School of Engineering, University of Tasmania, Australia, to attract girls to science, engineering and technology (SET). The project was a pilot program designed to engage female students from upper primary to senior secondary in the teaching of physical sciences. The outcomes of the year-long project are discussed and recommendations are made for further research.
Author Last Name:	Little
Author First Name:	Alison J.
Additional Author:	Leon de la Barra
:	Bernardo A.
Publication Date:	2009
Page Numbers:	439-445
Publication Title:	European Journal of Engineering Education
Volume:	34
Issue:	5
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Attracting Women into Electrical and Computer Engineering

Resource Title:	Attracting Women into Electrical and Computer Engineering
Description/Annotation:	This paper describes efforts at Rowan University to introduce young women into engineering and technology through a summer program titled “Attracting Women into Engineering”.

Particularly, this paper focuses on two Electrical & Computer Engineering (ECE) modules that were developed in exposing middle school girls to ECE as a viable, exciting career option.

Author Last Name: Ying
Author First Name: Tang
Additional Author: Head
:
Linda M.
Additional Author: Shreekanth
:
Mandayam
Additional Author: Kauser
:
Jahan
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Attracting Women to Engineering that Serves Developing Communities

Resource Title: Attracting Women to Engineering that Serves Developing Communities

Description/Annotation: This paper discusses a program created at the University of Colorado at Boulder in Engineering for Developing Communities (EDC). The program is formalized as a graduate program within the Environmental sub-discipline of Civil Engineering, yet longer term plans are to create a certificate option for undergraduate students in the College of Engineering.

Author Last Name: Bielefeldt
Author First Name: Angela
Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Attribution Theory: He Says, She Says: The Difference in how Women and Men Perceive Success and Failure

Resource Title: Attribution Theory: He Says, She Says: The Difference in how Women and Men Perceive Success and Failure

Description/Annotation: Causal attribution concerns the way in which individuals understand the reasons for their successes and failures. Some research indicates that women studying engineering are more likely than men to attribute their successes to external causes and their failures to internal causes, a combination that is least likely to lead to success in the face of challenge. Attribution retraining has been a successful strategy for changing attributional style and supporting perseverance and achievement for both genders.

Author Last Name: AWE

Publisher: SWE-AWE

Publication Date: 2005

Page Numbers: 9

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Automatic activation of stereotypes: The role of self-image threat

Resource Title: Automatic activation of stereotypes: The role of self-image threat

Description/Annotation: A study was done to determine whether threatening feedback causes stereotype activation when confronted by members of minority groups. Groups were tested by showing pictures of different people, and reaction was gauged in relation to their cognition. For those interested in studying the effects of stereotyping in the workplace.

Author Last Name: Spencer

Author First Name: Steven J.

Additional Author: Fein
: Steven

Additional Author: Wolfe
: Connie T.

Additional Author: Fong
: Christina

Additional Author: Duinn
: Meghan A.

Publisher: Sage Periodicals Press

Publisher Location: Thousand Oaks, CA

Publication Date: 1998

Page Numbers: 1139-1152

Publication Title: Personality and Social Psychology Bulletin

Volume: 24

Issue: 11

Source: Sage

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception Cultural Influences](#) » [Stereotype Threat](#)

Awakening Interest and Improving Employability: A Curriculum that Improves the Participation and Success of Women in Computer Science

Resource Title:	Awakening Interest and Improving Employability: A Curriculum that Improves the Participation and Success of Women in Computer Science
Description/Annotation:	This paper discusses the computer science curriculum at the College of St. Catherine, the nation's largest college for women. By surveying students and alumni, strategies for instruction and evaluation were identified for encouraging students to continue their CS education and for improving their employability.
Author Last Name:	Ng
Author First Name:	Yvonne
Publication Date:	2008
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#)

AWE: A Model for Sustainable and Profitable Collaboration

Resource Title:	AWE: A Model for Sustainable and Profitable Collaboration
Description/Annotation:	This paper describes a collaborative partnership between a Women in Engineering (WIE) program director and an educational assessment specialist. Although such partnerships have existed before, this one offers the unique attributes of an ongoing in-depth relationship between the two professionals that is resulting in more carefully crafted assessment tools and implementation processes that can promote systemic change in WIE. This in-progress partnership has allowed the WIE director (and other WIE directors nation- wide) access to validated and

reliable WIE activity assessment instruments and also providing educational assessment professional with in depth insights into the culture of the assessment discipline. This paper examines the characteristics of each partner's contributions, the benefits of such a partnership, what this partnership is accomplishing, and how other such partnerships can be developed at other institutions. Funded by NSF GSE under award #0120642.

Author Last Name: Marra
Author First Name: Rose M.
Additional Author: Bogue
:
Barbara
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Professional Development Publications by Funder](#)

AWE: A Workshop for Attracting Middle School Girls to Engineering

Resource Title: AWE: A Workshop for Attracting Middle School Girls to Engineering

Description/Annotation: Description of two week workshop at Rowan University for middle school girls to increase their understanding of engineering careers and the importance of studying science and math. Workshop involved faculty and undergraduate female engineering students as mentors.

Author Last Name: Head
Author First Name: Linda, M.
Additional Author: Jahan
:
Kauser
Additional Author: Kell

: Zenaida, O.
Additional Author: Sukumaran
: Beena
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 8
Source: WEPAN
Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls »
STEM/Diversity University Programs

Baccalaureate Origins of Recent Natural Science Doctorates

Resource Title: Baccalaureate Origins of Recent Natural Science Doctorates
Description/Annotation: A continuation of prior research, this 14-page article reports the results of research to study the baccalaureate origins of both men and women separately who received doctoral degrees in the natural sciences. The study gauged the productivity of U.S. institutions in terms of producing the highest number of doctoral graduates among students who graduated with bachelor's degrees between 1970 and 1979. Indicates that for both men and women, that colleges were more productive than universities, and private institutions were more productive than public institutions, but that there was gender variation when looking at productivity in single-sex institutions and in institution. Suggests that women's colleges have a significant positive effect on the number of women baccalaureate graduates who will go on to receive doctoral degrees.

Author Last Name: Tidball
Author First Name: Elizabeth M.
Publisher: Ohio State University Press
Publisher Location: Columbus, OH
Publication Date: 1986

Page Numbers: 606-620
Publication Title: The Journal of Higher Education
Volume: 57
Issue: 6
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Backlash: The Undeclared War Against American Women

Resource Title: Backlash: The Undeclared War Against American Women
Description/Annotation: This 552 page book examines the decade of the 1980s for American women. The author takes an aggressive and sometimes angry approach to dispute the perception of career women as "husband-starved loners" . She exposes the typically under-the-radar moves from politicians, business and the media. "The backlash decade (the 1980s) produced one long, painful and unremitting campaign to thwart women's progress (but) women never surrendered."
Author Last Name: Faludi
Author First Name: Susan
Publisher: Crown
Publication Date: 1991
Page Numbers: 1-552
Database Name: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Media & Entertainment](#) [Cultural Influences](#) » [Stereotype Threat](#)

Balancing the Equation: Where are Women and Girls in Science, Engineering, and Technology?

Resource Title:	Balancing the Equation: Where are Women and Girls in Science, Engineering, and Technology?
Description/Annotation:	This book takes a comprehensive look at women and girls and why there is not gender equity in science, engineering, and technology. The author highlights the crucial reasons we need to do more to advance women and girls in the sciences, and provides a new plan to create gender equity beginning in kindergarten and following through a woman's career. Includes chapters on high stage of education, interviews with key leaders, a resource guide, and special reports related to the subject. For teachers, academics, students, industry, and workforce.
Author Last Name:	Thom
Author First Name:	Mary
Publisher:	The National Council for Research on Women
Publisher Location:	New York, NY
Publication Date:	2001, Jul
Page Numbers:	1-174
Source:	Amazon
Source Type:	Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Balancing: Survey of Fiscal Year 1997, 1998, and 1999 Powre Awardees

Resource Title:	Balancing: Survey of Fiscal Year 1997, 1998, and 1999 Powre Awardees
Description/Annotation:	This paper explores issues identified by academic women scientists and engineers who received National Science Foundation (NSF) Professional Opportunities for Women in Research and Education (POWRE) awards in fiscal years 1997, 1998, and 1999. This study yields valuable information about

challenges and opportunities for retaining women in careers in science, mathematics, engineering, and technology. These data are particularly timely because of the national interest in the decision of NSF officials to phase out POWRE and replace it with new initiatives.

Author Last Name: Rosser
Author First Name: Sue V.
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Barriers to Overcome: Women in Information Technology

Resource Title: Barriers to Overcome: Women in Information Technology

Description/Annotation: This paper examines the reasons for under-representation of women in IT-related disciplines in institutions of higher education. Women are under-represented in information technology (IT) disciplines, similar to physical sciences and engineering. With the rapid growth of IT and its profound impact on productivity and national economy, tremendous career opportunities in IT have emerged over the last few years. Furthermore, there is a shortage of IT workers, with the U.S. depending upon foreign workers to address the growing workforce needs. The gender equity in IT is critical not only for women, but also for the American society increasingly dependent on IT.

Author Last Name: Varma
Author First Name: Roli
Publication Date: 2001

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Barriers to the Advancement of Technical Women: A Review of the Literature

Resource Title: Barriers to the Advancement of Technical Women: A Review of the Literature

Description/Annotation: 14 page report on the state of the research and literature on technical women, the barriers they encounter in their careers, as well as current research on effective practices to hire and retain them. The literature is drawn from social science research on gender and organizations. Where appropriate, the literature is enhanced with quotes from unstructured interviews conducted with women at various stages of their technical careers.

Author Last Name: Simard
Author First Name: Caroline
Publisher: Anita Borg Institute for Women and Technology
Publisher Location: Palo Alto, CA
Publication Date: 2007
Source: ABI
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Retention](#)

Barriers to Women in Academic Science and Engineering

Resource Title: Barriers to Women in Academic Science and Engineering

Description/Annotation: This 24 page chapter (within a 192 page book) explores experiences of women in Ph.D. programs and in the early stages of their academic careers. The effects may be hidden and include sources from a taken-for-granted male model of doing science that can discourage women from participation. Issues of family, self esteem and traditional culture are explored.

Author Last Name: Etzkowitz

Author First Name: Henry

Additional Author: Kemekgor

: Carol

Additional Author: Neuschatz

: Michael

Additional Author: Uzzi

: Brian

Additional Author: Alonzo, J.

Publisher: Johns Hopkins University Press

Publisher Location: Baltimore, MD

Publication Date: 1994

Page Numbers: 43-67

Publication Title: Who Will Do Science? Educating the Next Generation

Source: Mills College

Source Type: Full Text

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Base Ten


Resource Title: Base Ten

Description/Annotation: Novel exposing the daily battles of women scientists fighting to preserve a family life and succeed in a discipline that functions on the archaic belief that every scientist has a “wife” at home.

Author Last Name: Lesert
Author First Name: Maryann
Publisher: The Feminist Press at CUNY
Publisher Location: New York, NY
Publication Date: 2009, Feb
Page Numbers: 304
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Family Issues

Basics about Disabilities and Science and Engineering Education (Powerpoint presentation + Script)

Resource  Title: Basics about Disabilities and Science and Engineering Education (Powerpoint presentation + Script)

Description/Annotation: Powerpoint presentation with detailed notes for each slide presenting an introduction to disability issues, history, laws, and research for educators who have little or no experience with students or colleagues with disabilities.

Author Last Name: Sevo
Author First Name: Ruta
Additional Author: Under the Direction of Robert L. Todd (CATEA)
Publisher: Ruta Sevo
Publication Date: 2011
Volume: Posted with permission from Ruta Sevo

Resource Type Categories: Webinar/Video Topical Categories: Cultural Influences Educational Factors Educational Factors » Retention Cultural Influences » Stereotype Threat

Basics about Disabilities and Science and Engineering Education

Resource Title: Basics about Disabilities and Science and Engineering Education

Description/Annotation: An introduction to disability issues, history, laws, and research for educators who have little or no experience with students or colleagues with disabilities. There is a short overview in the form of a presentation script. A section looks at the need for inclusion and recruitment of students with disabilities to science and engineering fields, and gives examples of resources for faculty to improve instruction. The Short Reader and Syllabus is a digest covering topics often included in full Disability Studies readers written by experts. An annotated bibliography is provided for those who want further depth. It draws from syllabi used for undergraduates.

Author Last Name: Sevo
Author First Name: Ruta
Additional Author: Under the Direction of Robert L. Todd (CATEA)
Publisher: Ruta Sevo
Publication Date: 2011
Page Numbers: 220
Source: Lulu
Source Type: Full text

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors » Retention](#) [Cultural Influences » Stereotype Threat](#)

Battelle Center for Science and Technology Policy

Resource Title: Battelle Center for Science and Technology Policy

Description/Annotation: The Batelle Center is located in the John Glenn School of Public Affairs at The Ohio State University and was established to draw upon an integrated public-private team to serve Ohio, the United States and the world. Understanding science and technology, providing expert advise to policymakers, studying the effects of investments, anticipating and mitigating consequences, and training future administrators are the goals set forth by the Batelle Center. The Center also works towards developing the following key policy areas: Energy; Education and Workforce Training (STEM); Space; Agriculture and water; Biotechnology and health; Nanotechnology, materials, and manufacturing; and Environment and climate change.

Web site Link: [Link to Resource](#)

More: The Batelle Center was formerly called the Batelle Center for Mathematics and Science Education Policy.

Resources: The Batelle Center website offers a wealth of information, including:

- Events
- News
- Research and publications
- STEM Research
- Links to the Batelle Memorial Institute and John Glenn School of Public Affairs
- Information about each of the Center's key policy areas

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Batelle Center is endowed by and works in close cooperation with Battelle Memorial Institute. The Center is directed by an External Board of Advisors.

Contact E-mail: battellecenter@osu.edu

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors » Leadership & Management Career Factors » Professional Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Becoming a Resonant Leader: Develop Your Emotional Intelligence, Renew Your Relationships, Sustain Your Effectiveness

Resource Title: Becoming a Resonant Leader: Develop Your Emotional Intelligence, Renew Your Relationships, Sustain Your Effectiveness

Description/Annotation: Hands-on guide to developing emotional intelligence, renewing and sustaining yourself and your relationships, and taking your leadership to a new level. This book is ideal for anyone seeking personal and professional development and for consultants, coaches, teachers, and faculty to use with their clients or students.

Author Last Name: McKee

Author First Name: Annie

Additional Author: Boyatzis

: Richard

Additional Author: Johnston
:
Frances
Publisher: Harvard Business Review Press
Publisher Location: Boston, MA
Publication Date: 2008
Source Type: Available for purchase

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type
Categories: [Book](#) Topical Categories: [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Becoming an Aerospace Engineer: A Cross Gender Comparison

Resource Title: Becoming an Aerospace Engineer: A Cross Gender Comparison

Description/Annotation: This article discusses a mail (self-reported) survey of 4300 student members of the American Institute of Aeronautics and Astronautics (AIAA) during the spring of 1993 as a Phase 3 activity of the NASA/DoD Aerospace Knowledge Diffusion Research Project. The survey was designed to explore students' career goals and aspirations, communications skills training, and their use of information sources, products, and services. Authors examine factors that lead to the choice to study aerospace engineering, their current level of satisfaction with that choice, and their career-related goals and aspirations. Authors also examine students' responses to questions about communications skills training and the helpfulness of that training, and their use of and the importance to them of selected information sources, products, and services. The cross-gender comparison revealed more similarities than differences. Female students appear to be more satisfied than their male counterparts with the decision to major in aerospace engineering. Both female and male student respondents consider communications skills important for professional success, but females place a higher value than males do on oral communications skills. Women students also place a higher value than men do on the roles of other students and faculty members in satisfying their needs for information.

Author Last Name: Hecht

Author First Name: Laura Frye
Additional Author: Pinelli
: Thomas E.
Additional Author: Barclay
: Rebecca O.
Additional Author: Kennedy
: John M.
Publication Date: 1995, Jul
Page Numbers: 263-270
Publication Title: Journal of Engineering Education
Volume: 84
Issue: 3
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Behavior Profiles: Its Influence On Your Workplace Environment

Resource Title: Behavior Profiles: Its Influence On Your Workplace Environment
Description/Annotation: Description of the DISC (Dominance, Influence, Steadiness and Compliance) instrument as a tool to understand natural and adapted behavioral styles and their impact on oneself and others. Can be used by faculty in working with students and teams.
Author Last Name: Algert
Author First Name: Nancy
Additional Author: Watson
: Karen
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)

Publication Date: 2000
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Behind the Pay Gap

Resource Title: Behind the Pay Gap

Description/Annotation: In this 67-page report, the authors cover a variety of topics related to the gendered pay gap, including the importance of studying, understanding, and remedying the pay gap; snapshots of the pay gap at one year after college graduation and ten years after college graduation; and suggestions for closing the pay gap. This report covers a broad range of topics pertinent to challenges faced by women in the workplace and highlights increasing women's participation in STEM as a step toward closing the pay gap.

Author Last Name: Goldberg Dey

Author First Name: Judy

Additional Author: Hill
: Catherine

Publisher: American Association of University Women

Publisher Location: Washington, DC

Publication Date: 2007

Page Numbers: 67

Source: AAUW

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Being and Becoming: Gender and Identity Formation of Engineering Students

Resource Title: Being and Becoming: Gender and Identity Formation of Engineering Students

Description/Annotation: Data presented in this paper suggest that the interaction of gender with the development of engineering identity as an undergraduate student is complex and multilayered, requiring 1) a consideration of how men and women develop their idea of what constitutes an engineering identity and 2) an understanding of how students of both genders develop their own identities and how this relates to engineering identity.

Author Last Name: Chachra

Author First Name: Debbie

Additional Author: Kilgore
:
Deborah

Additional Author: Loshbaugh
:
Heidi

Additional Author: McCain
:
Janice

Additional Author: Chen
:
Helen

Publisher: American Society of Engineering Education

Publisher Location: Washington, D.C.

Publication Date: 2008

Publication Title: Proceedings of the American Society of Engineering Education Annual Conference

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#)

Benefits for Women Students from Industrial E-Mentoring

Resource Title:	Benefits for Women Students from Industrial E-Mentoring
Description/Annotation:	MentorNet pairs undergraduate and graduate women studying engineering and related sciences with volunteers in industry for year-long, structured mentoring relationships conducted via e-mail. MentorNet is unique among large-scale e-mentoring programs in conducting extensive evaluation to determine retention, long-term benefits to the participants, and outcomes associated with the e-mentoring process. This paper describes the MentorNet program and its evaluation findings, with a particular focus on the results of a survey of student participants one year after they completed their participation in MentorNet. Of respondents to the survey, 95% persisted in their fields, either as they continued in their studies or moved into the labor market. A large percentage of students had an internship while they were in school; some students reported that MentorNet participation helped them get their internship. In addition, 43% reported participation in MentorNet boosted their confidence. This is a significant finding as the decrease in confidence and lower confidence of women versus men students have been identified as contributing factors to the underrepresentation of women in the engineering, science, and math fields.
Author Last Name:	Muller
Author First Name:	Carol B.
Additional Author:	Single
:	Peg Boyle
Publication Date:	2001
Publication Title:	ASEE Annual Conference & Exposition
Source:	ASEE
Source Type:	Full Text

Best Practices for Enculturation: Collegiality, Mentoring, and Structure

Resource Title:	Best Practices for Enculturation: Collegiality, Mentoring, and Structure
Description/Annotation:	Interviews with students on practices to integrate first year students into graduate programs.
Author Last Name:	Boyle
Author First Name:	Peg
Additional Author:	Boice
:	Robert
Publisher:	Wiley Periodicals, Inc.
Publication Date:	1998
Page Numbers:	87-104
Publication Title:	The Experience of Being in Graduate School: An Exploration: New Directions for Higher Education, No. 101
Volume:	1998
Issue:	101
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Best Practices for Student Success

Resource Title:	Best Practices for Student Success
Description/Annotation:	This panel discussion is designed to focus on best practices, solutions and next steps for addressing current student persistence, student success and increasing graduation rates. We will explore creative and innovative programs, workshops, seminars, research opportunities, mentoring programs, learning communities and other ways to deliver quality experiences to our student populations.

Author Last Name: Dison
Author First Name: Ana
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

Beyond Barbie and Mortal Kombat: New perspectives on gender and gaming

Resource Title: Beyond Barbie and Mortal Kombat: New perspectives on gender and gaming

Description/Annotation: Papers by new media theorists, game designers, educators, psychologists, and industry professionals on how gender intersects with digital games.

Author Last Name: Kafai
Author First Name: Yasmin B.
Additional Author: Heeter
: Carrie
Additional Author: Denner
: Jill
Additional Author: Sun
: Jennifer Y.
Publisher: The MIT Press
Publisher Location: Cambridge, Massachusetts
Publication Date: 2008
Page Numbers: 371
Source Type: Summary, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Media & Entertainment](#)

Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering

Resource Title:	Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering
Description/Annotation:	A milestone report that summarizes findings about root causes for the under-representation of women in S&E, programs and practices that have proven to be effective in improving participation, and recommendations for national action. Excellent side-bars on key research articles and well-known programs. Extensive citations to research literature. Very specific recommendations, esp. the formation of a monitoring organization to collect data, promote professional and equity standards, and use Title IX enforcement to put pressure on universities that receive Federal funding. Excellent desk reference for citations, issues, facts, and talking points.
Author Last Name:	COSEPUP
Publisher:	Committee on Maximizing the Potential of Women in Academic Science and Engineering, Committee on Science, Engineering, and Public Policy
Publisher Location:	Washington, D.C.
Publication Date:	2007
Page Numbers:	317
Publication Title:	Beyond Bias and Barriers: fulfilling the potential of women in academic science and engineering
Source:	NAS
Source Type:	Partial text; Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Beyond Federal Law: Trends and Principles Associated with State Laws Banning the Consideration of Race, Ethnicity, and Sex Among Public Education Institutions

Resource Title:	Beyond Federal Law: Trends and Principles Associated with State Laws Banning the Consideration of Race, Ethnicity, and Sex Among Public Education Institutions
Description/Annotation:	This 54-page report from the American Association for the Advancement of Science (AAAS) and EducationCounsel is part of the second phase of the AAAS Diversity and Law Project that focuses on science, technology, engineering and math (STEM)-related access and diversity-related law, policy, and programmatic issues. This report provides a framework for assessing access- and diversity-related policies and programs at public colleges and universities. The report also explains key elements and analytical principles of bans prohibiting the consideration and use of race, ethnicity, and sex in public programs. The full report is available in PDF format.
Author Last Name:	Coleman
Author First Name:	Arthur L.
Additional Author:	Lipper
:	Katherine E.
Additional Author:	Keith
:	Jamie Lewis
Publisher:	AAAS
Publisher Location:	Washington, DC
Publication Date:	2012
Page Numbers:	1-54
Source:	AAAS
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Beyond Flex Time: Retaining Female Scientists and Engineers in the Metals Industry

Resource Title:	Beyond Flex Time: Retaining Female Scientists and Engineers in the Metals Industry
Description/Annotation:	This article describes how Alcoa was involved in a major research report "The Athena Factor" and efforts and programs Alcoa has taken to retain women engineers and scientists. Alcoa has created a program called Women in Operations Virtual Extended Network (WOVEN) to provide a networking forum for women to address some of the barriers identified by women such as isolation. Another program described is Alcoa's Manufacturing Manager Development Program, to help define career paths and encourage promotion. Valuable information for industry leaders looking for examples from other companies for efforts in retaining women.
Author Last Name:	Robinson
Author First Name:	Lynne
Publisher:	The Minerals, Metals, and Materials Society (TMS)
Publisher Location:	Warrendale, PA
Publication Date:	2009
Publication Title:	Materials Technology @ TMS
Source:	TMS
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Beyond the Classroom: Gender Differences in Science Experiences

Resource Title:	Beyond the Classroom: Gender Differences in Science Experiences
Description/Annotation:	This study examined young students' reported out-of-school science-related experiences. The sample consisted of 424 elementary school students between the ages of 9 and 13. The

study revealed a significant difference between boys and girls on the number of reported total science experiences and physical science experiences. No difference was found for life science-related experiences. The results of the study suggest the presence of gender differences in overall science experiences with greater disparity in physical science-related experiences.

Author Last Name: Farenga
Author First Name: Stephen J.
Additional Author: Joyce
:
Beverly A.
Publication Date: 1997, Jun
Page Numbers: 563
Publication Title: Education
Volume: 117
Issue: 4
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Beyond the Gender Wars: A Conversation About Girls, Boys, and Education

Resource Title: Beyond the Gender Wars: A Conversation About Girls, Boys, and Education

Description/Annotation: This 65-page report discusses gender issues in education, with sections on gender identity, equity in education, the ongoing debate over the "gender wars", and agenda setting for future educational equity. The report was compiled from a symposium on gender in education.

Author Last Name: AAUW
Publisher: American Association of University Women
Publisher Location: Washington, DC

Publication Date: 2001
Page Numbers: 63
Source: AAUW
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Beyond Work-Family Balance: Advancing Gender Equity

Resource Title: Beyond Work-Family Balance: Advancing Gender Equity

Description/Annotation: The authors of this book believe their approach can create a more equitable workplace where employees manage their own work and personal lives, while the company still improves the bottom line. A process is described for implementing and evaluating success. The authors argue that when employees are in control of their personal lives they become more effective contributors to the company. For industry and the workforce.

Author Last Name: Rapoport

Author First Name: Rhona

Additional Author: Bailyn

:

Additional Author: Fletcher

:

Additional Author: Pruitt

:

Publisher: Jossey-Bass

Publisher Location: San Francisco, CA

Publication Date: 2001, Dec

Page Numbers: 1-224

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#)

Bias Literacy: A Review of Concepts in Research on Discrimination

Resource Title:	Bias Literacy: A Review of Concepts in Research on Discrimination
Description/Annotation:	A 31-page document that lists and discusses important concepts and terminology regarding bias literacy. Draws heavily from the book "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering" (2007). Lists and defines important vocabulary, discusses the legality/illegality of bias with examples, lists important legislation to constrain bias, defines different types of discrimination and bias. Also discusses the value of diversity in the learning environment and looks at measurement of bias and studies that have been conducted to measure bias, discrimination, and/or unfairness. A good research-based topical look at bias literacy.
Author Last Name:	Sevo
Author First Name:	Ruta
Additional Author:	Chubin
:	Daryl E.
Publication Date:	2008
Page Numbers:	1-31
Source:	Momox
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Stereotype Threat](#)

Biases in Interpersonal Communication: How Engineering Students Perceive Gender Typical Speech

Acts in Teamwork

Resource Title: Biases in Interpersonal Communication: How Engineering Students Perceive Gender Typical Speech Acts in Teamwork

Description/Annotation: This research investigates differences in how engineering and non-engineering men and women perceive common speech acts in team settings. Participants completed surveys asking them to rate the speakers of three male typical and three female typical speech acts. Male engineering students were significantly harsher than other groups on female typical speech acts in which the speaker conceded weaknesses, even if this concession was for strategic purposes such as trying to help another teammate “save face.” This bias against female typical speech was consistent regardless of the speaker’s gender, suggesting that students were reacting to speech patterns rather than to biological gender. These findings provide hope that women may be able to help manage perceptions of their everyday team interactions by avoiding statements that imply weaknesses, even if such speech is normal in other situations.

Author Last Name: Wolfe

Author First Name: Joanna

Additional Author: Powell

: Elizabeth

Publication Date: 2009, Jan

Page Numbers: 5-16

Publication Title: Journal of Engineering Education

Volume: 98

Issue: 1

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Negotiation Skills](#)

Biological, Social, and Organizational Components of Success for Women in Academic Science and

Resource Title: Biological, Social, and Organizational Components of Success for Women in Academic Science and Engineering

Description/Annotation: This book is a report of a workshop held in December 2005 by the Committee of Maximizing the Potential of Women in Academic Science and Engineering and the Committee on Science, Engineering, and Public Policy. A major focus of the workshop explored issues surrounding women faculty in science and engineering, since these numbers have not increased at the same rate as women students in the same programs. Experts gathered to discuss what sex differences research has shown in regards to behavior, capability, achievement, and how these things have affected our policy in science and engineering programs at universities. Valuable input into the ongoing discussions of how to increase women academic faculty in science and engineering, especially at the highest level research universities.

Author Last Name: NAS

Additional Author: National Academy of Engineering

Additional Author: Institute of Medicine of the National Academies

Publisher: The National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2006

Page Numbers: 1-244

Source: NAS

Database Name: National Academies Press

Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment

Resource Title: Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment

Description/Annotation: The author explores the thoughts and ideas of African-American women in and outside of academe in this 336 page book.

Author Last Name: Hill Collins

Author First Name: Patricia

Publisher: Routledge, Inc.

Publisher Location: NY, NY

Publication Date: 1999

Page Numbers: 336

Source: Feministes radicales

Source Type: Full Text

Resource Type Categories: Book Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Professional Development Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment

Resource Title: Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment

Description/Annotation: Patricia Hill Collins offers a complete work on black feminists, including African-American empowerment, the nature of oppression from a trans-national, global dimension. She examines connections between knowledge and power relations in an award-winning text.

Author Last Name: Collins

Author First Name: Patricia Hill

Publisher: Routledge

Publication Date: 2000

Page Numbers: 1-336

Source: Amazon

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Black Immigrants and Black Natives Attending Selective Colleges and Universities in the United States

Resource Title: Black Immigrants and Black Natives Attending Selective Colleges and Universities in the United States

Description/Annotation: Analysis of National Longitudinal Survey of Freshmen (NLSF) data to study black immigrants and natives attending selective colleges and universities in the United States. Immigrant numbers were higher in private and more selective institutions although immigrant students were not found to be favored in the admissions process. Useful for colleges and university personnel concerned with unanticipated impacts of admissions practices.

Author Last Name: Massey

Author First Name: Douglas S.

Additional Author: Mooney

: Margarita

Additional Author: Torres

: Kimberly C.

Additional Author: Charles

: Camille Z.

Publisher: American Journal of Education

Publication Date: 2007, Feb

Publication Title: American Journal of Education

Volume: 113

Issue: 2

Source: University of Michigan

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

BlackGirlsCode

Resource Title: BlackGirlsCode

Description/Annotation: BlackGirlsCode is a nonprofit organization aimed towards increasing the number of young women of color in the field of digital and computer technology. The mission of BlackGirlsCode is to empower young women of color between the ages of 7-14 to become masters of their technological universe by providing them with skills in computer programming, exposing them to role models in the technology space, and increasing their self-confidence by teaching them the skills required to become tech creators and entrepreneurs. To empower young women of color between the ages of 7-14 to become the masters of their technological universe. Although the digital divide is steadily eroding, tremendous barriers remain for the entry of women and people of color into the technology field. Today's solutions should include both the access to technology and focus on the opportunity to increase the participation of young women of color in the current tech marketplace as builders and to expose them to the possibilities of improving both their lives and the society in which they live by utilizing the abundant technological tools around them to create change. B

Web site Link: [Link to Resource](#)

More: BlackGirlsCode was founded by Kimberly Bryant, a biotechnology/engineering professional who received her first taste of computer programming as a freshman in Electrical Engineering. Kimberly decided to launch BlackGirlsCode to meet the needs of young women of color who are underrepresented in the currently exploding field of technology.

Resources: The BlackGirlsCode website contains the following information regarding the organization and how to get involved:

- [Who We Are](#)
- [What We Do](#)
- [Blog](#)
- [Help Us Grow!](#)
- [Volunteer Signup](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: BlackGirlsCode is a grassroots organization looking to build partnerships with both organizations and individuals who share a common interest in exposing girls to opportunities in STEM.

Contact Name: Kimberly Bryant

Contact E-mail: KBryant@BlackGirlsCode.org

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Blueprint for the Future: Framing the Issues of Science in a Global Context: Summary of a Workshop

Resource Title: Blueprint for the Future: Framing the Issues of Science in a Global Context: Summary of a Workshop

Description/Annotation: This 126-page report summarizes a workshop held in April 2011 entitled, "Blueprint for the Future: Framing the Issues of Women in Science in a Global Context". The workshop convened in Washington, DC and was overseen by the National Academies' standing Committee on Women in Science, Engineering, and Medicine (CWSEM). The scope of the workshop was limited to women's participation in three scientific disciplines: chemistry, computer science, mathematics, and statistics. The workshop presentations came from a group of scholars and professionals who have been working for several years on documenting, analyzing, and interpreting the status of women in selected technical fields around the world. Examination of the three disciplines-chemistry, computer science, and mathematics and statistics-can be considered a first foray into collecting and analyzing information that can be replicated in other fields.

Author Last Name: Didion

Author First Name: Catherine

Additional Author: Frehill

: Lisa M.

Additional Author: Pearson, Jr.

: Willie

Additional Author: Committee on Status and Participation of Women in STEM Disciplines and Careers
Additional Author: National Research Council
Publisher: The National Academies Press
Publisher Location: Washington, DC
Publication Date: 2012
Page Numbers: 1-126
Source: NAP
Source Type: Summary, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Career Factors](#) » [Retention](#)

Body Projects of Young Women of Color in Physics: Intersections of Gender, Race, and Science

Resource Title: Body Projects of Young Women of Color in Physics: Intersections of Gender, Race, and Science

Description/Annotation: Article focuses on ten minority female physics students who negotiate three incongruent realms: field of study, gender, and race/ethnicity. By highlighting accounts of individuals who persevere in the elite physics field, this article provides insight into how university departments should reform to promote more women and underrepresented minorities in science.

Author Last Name: Ong
Author First Name: Maria (Mia)
Publisher: University of California Press
Publication Date: 2005, Nov
Page Numbers: 593-617
Publication Title: Social Problems
Volume: 52
Issue: 4
Source: JSTOR

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#) [Cultural Influences](#) » [Stereotype Threat](#)

Boxed in or Coming out? On the Treatment of Science, Technology and Gender in Educational Research

Resource Title: Boxed in or Coming out? On the Treatment of Science, Technology and Gender in Educational Research

Description/Annotation: This editorial includes papers from the 1999 Gender and Education 'Voices in Education' conference held at the University of Warwick which was offered as a space for discussion for researchers concerned with issues of gender in science, technology and mathematics education. In particular, researchers were concerned with the limited ways in which both science/technology and gender were often treated in educational research.

Author Last Name: Henwood

Author First Name: Flis

Additional Author: Miller

: Katrina

Publication Date: 2001

Page Numbers: 237-242

Publication Title: Gender and Education

Volume: 13

Issue: 3

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Breaking into the Guildmasters' Club:: What We Know About Women Science and Engineering Department Chairs at AAU Universities

Resource Title: Breaking into the Guildmasters' Club:: What We Know About Women Science and Engineering Department Chairs at AAU Universities

Description/Annotation: In the summer of 2000 a survey of approximately 92% of the 2817 departments at elite institutions was conducted to develop a set of baseline demographics for department chairs. This study discusses the survey results by disciplinary field and reviews the underlying factors that might be contributing to the low proportions of women.

Author Last Name: Niemeier

Author First Name: Debbie A.

Additional Author: Gonzalez
: Cristina

Publication Date: 2004

Page Numbers: 157-171

Publication Title: NWSA Journal

Volume: 16

Issue: 1

Source: JSTOR

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Breaking the silicon ceiling: women in engineering freshman seminar

Resource Title: Breaking the silicon ceiling: women in engineering freshman seminar

Description/Annotation: This paper describes a pilot study for freshmen women engineering students launched at the College of Engineering at UMass Amherst in the fall of 2002. This pilot study, which targeted increased retention of women in engineering, was comprised of the following three main elements: a weekly seminar, use of Pocket PCs and a web-based information and exchange center. The students noted that the seminar allayed their fears and concerns about pursuing engineering, provided a (classroom and online) forum for networking with their peers and other women engineers. This pilot study is the first step in a longitudinal study that includes a series of such seminars as well as follow up assessment provided by the seminar participants throughout the engineering program.

Author Last Name: Ganz
Author First Name: A.
Additional Author: Howe
: S.
Additional Author: Rivera
: V.
Additional Author: Yuechen
: Chu
Publication Date: 2003
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Breaking through Barriers- Campus Action Programs Panel Session

Resource Title: Breaking through Barriers- Campus Action Programs Panel Session

Description/Annotation: This panel session will explore the impact of programs on "Breaking through Barriers in Science, Technology, Engineering, and Mathematics for Women and Girls." This was the theme for the 2010 and 2011 American Association of University Women's Campus Action Programs (CAP). This session will highlight CAP team projects and results.

Author Last Name: Dell

Author First Name: Elizabeth M.

Additional Author: Oppenheimer

: Bonnie

Additional Author: Nicholson

: John

Additional Author: Goodman

: Mark

Additional Author: Eko

: Annette

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Bridging Differences: How Social Relationships and Racial Diversity Matter in a Girls' Technology Program

Resource Title: Bridging Differences: How Social Relationships and Racial Diversity Matter in a Girls' Technology Program

Description/Annotation: This article explores an understudied dimension of girls' single-sex education: how social relationships and racial diversity impact the educational environment for girls, and how teachers may best address these concerns. Findings are presented from a 3-year qualitative study of girls' experiences in a single-sex technology program. Girls valued the all-girls aspect of the programs, and

friendships formed the foundation of their social experiences. Girls' friendship groups influenced their experiences and eventually their success in the after school technology programs.

Author Last Name: Kekelis
Author First Name: Linda S.
Additional Author: Ancheta
:
Additional Author: Rebecca Wepsic
Additional Author: Heber
:
Additional Author: Etta
Additional Author: Countryman
:
Additional Author: Jeri
Publication Date: 2005
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Bridging the Digital Divide: Computing in Tribal Colleges and Universities

Resource Title: Bridging the Digital Divide: Computing in Tribal Colleges and Universities

Description/Annotation: This paper studies inclusion of American Indians and Alaska Natives in computer science education in tribal colleges and universities (TCUs). It is based on interviews with computer science faculty and students majoring in the computer science field at a TCU in 2005. The paper shows challenges that computer science faculty and students face in TCUs and how they differ drastically from main stream institutions.

Author Last Name: Varma
Author First Name: Roli
Publication Date: 2009
Page Numbers: 39-52
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Source: University of New Mexico
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Professional Development](#) [Educational](#)
[Factors](#) » [Retention](#)

Bridging the Gender Gap: Six Years of Success

Resource Title: Bridging the Gender Gap: Six Years of Success

Description/Annotation: This paper provides information on the Women in Applied Science and Engineering (WISE) Summer Bridge Program, such as program components and activities, and examines overall retention rates for students participating since 2000. During this four day residential program, students participate in academic reviews to prepare for their first year engineering curriculum. The WISE Summer Bridge Program also introduces students to MAPLE and Excel programming sessions, student engineering organizations, and provides evening activities geared toward students networking with WISE staff, other engineering students, and industry. Data on persistence and graduation rates of WISE Bridge participants since 2000 is presented. Possible explanations for former Bridge participants' persistence or consequent changes in major and their graduation/persistence rates after leaving engineering are also discussed.

Author Last Name: Fletcher
Author First Name: Shawna
Additional Author: Newell
:
Additional Author: Haag

: Susan
Additional Author: Roedel
: Ronald
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Bringing Up Girls in Science (BUGS): The Effectiveness of an Afterschool Environmental Science Program for Increasing Female Students' Interest in Science Careers

Resource Title: Bringing Up Girls in Science (BUGS): The Effectiveness of an Afterschool Environmental Science Program for Increasing Female Students' Interest in Science Careers

Description/Annotation: This paper discusses Bringing Up Girls in Science (BUGS), an afterschool program for 4th and 5th grade girls that provided authentic learning experiences in environmental science as well as valuable female mentoring opportunities in an effort to increase participants' academic achievement in science. Fourteen former BUGS participants completed two instruments to assess their perceptions of science and science, technology, engineering, and mathematics (STEM) careers.

Author Last Name: Tyler-Wood

Author First Name: Tandra

Additional Author: Ellison

: Amber

Additional Author: Lim

: Okyoung

Additional Author: Periathiruvadi
:
Sita
Publication Date: 2012, Feb
Page Numbers: 46-55
Publication Title: Journal of Science Education and Technology
Volume: 21
Issue: 1
Source: SpringerLink
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual
Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls »
STEM/Diversity Outreach Programs

Broadening female participation in science, technology, engineering, and mathematics: Experiences at community colleges

Resource Title: Broadening female participation in science, technology, engineering, and mathematics: Experiences at community colleges

Description/Annotation: This chapter presents findings from interviews with female community college students in science, technology, engineering, and mathematics fields regarding their learning experiences, interaction with faculty, and educational and career aspirations. Funded by NSF GSE under award #0507882.

Author Last Name: Starobin
Author First Name: Soko S.
Additional Author: Laanan
:
Frankie Santos
Publication Date: 2008
Page Numbers: 37-46
Publication Title: New Directions for Community Colleges

Volume: 142
Source: San Diego City College
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact

Resource Title: Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact

Description/Annotation: This book features organizations that engage undergraduate students in research, scholarship, and creative activity to enhance educational outcomes and expand frontiers of knowledge.

Author Last Name: Boyd

Author First Name: Mary K

Additional Author: Wesemann

:

Jodi L

Publisher: Council on Undergraduate Research

Publisher Location: Washington, DC

Publication Date: 2009

Source: CUR

Source Type: Summary, Table of Contents, Available for Sale

Resource Type Categories: [Book](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Building a Network to Support Girls and Women in Science, Technology, Engineering, and Mathematics

Resource Title: Building a Network to Support Girls and Women in Science, Technology, Engineering, and Mathematics

Description/Annotation: At Kansas State University, the authors have begun a systemic effort to increase the participation of girls and women in STEM. This article describes the creation and initial activities of a network of partners that includes universities, school districts, corporations, governmental agencies, and nonprofit organizations, assembled under the aegis of a project supported by funding from the National Science Foundation.

Author Last Name: Spears

Author First Name: Jacqueline

Additional Author: Dyer

: Ruth A.

Additional Author: Franks

: Suzanne E.

Additional Author: Montelone

: Beth A.

Publication Date: 2004

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Issue: 2

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Building a Science, Technology, Engineering, and Math Education Agenda: An Update of State Actions

Resource Title: Building a Science, Technology, Engineering, and Math Education Agenda: An Update of State Actions

Description/Annotation: This 40-page report from The National Governors Association (NGA) is a guide focused on strengthening STEM education. The report highlights the work Governors have been leading to increase the proficiency of all students in these areas and grow the number of students who pursue STEM careers and advanced studies. The guide also features the actions that states and their education institutions have taken to address these challenges. The report includes tables and figures on math and science proficiency of U.S. students and an international comparison; STEM enrollment and degrees; and STEM salaries. The report is available in PDF format.

Author Last Name: Thomasian

Author First Name: John

Publisher: NGA Center for Best Practices

Publisher Location: Washington, DC

Publication Date: 2011, Dec

Page Numbers: 1-40

Source: NGA

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Building a Structure of Support: An Inside Look at the Structure of Women in Engineering Programs

Resource Title: Building a Structure of Support: An Inside Look at the Structure of Women in Engineering Programs

Description/Annotation: Proceedings from a series of interviews conducted with top directors of Women in Engineering (WIE) and Women in Science and Engineering (WISE) programs, providing insight into the structure of these programs.

Author Last Name: Knight-Thompson

Author First Name: Meredith

Additional Author: Cunningham
:
Christine M.
Publisher: Begell House
Publisher Location: Redding, CT
Publication Date: 2004
Page Numbers: 1
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 1
Database Name: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Building An Engineer: Women in Engineering

Resource Title: Building An Engineer: Women in Engineering

Description/Annotation: This paper discusses the Pre-Engineering Instructional and Outreach Program (PrE-IOP), a collaboration of the Newark College of Engineering and New Jersey Institute of Technology's (NJIT) Center for Pre-College Programs. This program seeks to increase the future pool of qualified high-tech workers, including women and minorities. PrE-IOP consists of two components: 1. An instructional component that implements pre-engineering curriculum in middle and high school classes. 2. An outreach component that consists of a comprehensive information campaign about the rewards of engineering and technology professions. One project of the outreach component is a series of teleconferences on the theme of "Building an Engineer" designed to introduce middle and high school educators to engineering and engineering education. "Building an Engineer: Women in Engineering," the second teleconference of this series, deals with gender issues in engineering education and engineering careers.

Author Last Name: Heyman

Author First Name: Suzanne B.

Additional Author: Lawrey
:
Additional Author: Aisha K. Rockland
:
Additional Author: Ronald H.
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Building an Engineering Technology Workforce: A plan for reaching young people, adults and women

Resource Title: Building an Engineering Technology Workforce: A plan for reaching young people, adults and women

Description/Annotation: This paper outlines a comprehensive recruiting project to increase the number of people who prepare to enter engineering and engineering technology careers. The project addresses the barriers that prevent target groups from selecting engineering. Informed by results from a 2005 NSF grant, the initiatives in this project that target young people are being offered in a sequence to create and build interest in and commitment to careers in engineering technology. Efforts to reach adults seeking career changes focus primarily on the rewards from pursuing and meeting the practical goal of completing a two-year program. Funded by NSF ATE under award #0802505 & #0501885.

Author Last Name: Perez
Author First Name: Dorene
Additional Author: Gibson
:
Additional Author: James
Additional Author: Opsal
:
Additional Author: Sue Caley
Additional Author: Lynch

: Rose Marie
Publication Date: 2009
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Publications by Funder](#) » [NSF-DUE-ATE Publications by Funder Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Building Careers, Transforming Institutions: Underrepresented Women and Minorities, Leadership Opportunities, and Interinstitutional Networking

Resource Title: Building Careers, Transforming Institutions: Underrepresented Women and Minorities, Leadership Opportunities, and Interinstitutional Networking

Description/Annotation: This article examines outcomes of the National Science Foundation sponsored 1st Women in Engineering Leadership Conference in the fall of 2000. The conference was designed to enable women engineers to develop the types of network that can facilitate transition to leadership positions. With an analysis of data gathered from surveys at three points in time, researchers track the issues that were salient to women who were considering leadership roles; identify the benefits accrued from participation in the conference and from subsequent networking activities; and propose future interventions that may enhance and promote interinstitutional networking.

Author Last Name: Smith
Author First Name: V.
Additional Author: Niemeier
: D.A.
Publication Date: 2005
Page Numbers: 181-196
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11
Issue: 2
Source: INES
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Building the Engineer in Me: Designing A Seminar for First-Year Female Engineering Students

Resource Title: Building the Engineer in Me: Designing A Seminar for First-Year Female Engineering Students

Description/Annotation: Designing an initiative whose goals are to recruit, retain, and support female engineering students provides many opportunities to experiment with different combinations of academic, social, and service models. The design process by which one component of the initiative, a seminar aimed towards introducing first-year female engineering students to the engineering profession, was developed in this paper. The seminar, entitled Building the Engineer in Me, is intended as a cornerstone in the initiative, and contains innovative and unique features.

Author Last Name: Donohue

Author First Name: Susan

Additional Author: Vallas

: Carolyn

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

By the Numbers: Statistics about Women & IT

Resource Title:	By the Numbers: Statistics about Women & IT
Description/Annotation:	The most compelling statistics on women's participation in IT, on a single page.
Author Last Name:	NCWIT
Publisher:	National Center for Women and Information Technology (NCWIT)
Publisher Location:	Boulder, CO
Publication Date:	2010, Jan 27
Page Numbers:	1
Source:	NCWIT
Source Type:	Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Retention](#)

Calibrating a Measure of Gender Differences in Motivation for Learning Technology

Resource Title:	Calibrating a Measure of Gender Differences in Motivation for Learning Technology
Description/Annotation:	This paper reports on the theory, design, and calibration of an instrument for measuring gender difference in motivation for learning technology. The content of the instrument was developed based upon the motivational theories of Eccles and others. More specifically, the learners' self-concept of ability, perception of technology, perception of parental beliefs, causal attributions (success and failure), value factors, and gender issues in using technology were investigated. The function of the instrument was evaluated according to the principles of Measurement theory, using a Rasch rating scale measurement model.
Author Last Name:	Hwang

Author First Name: Young Suk
Additional Author: Fisher
: William
Additional Author: Vrongistinos
: Konstantinos
Publication Date: 2009, Sep
Page Numbers: 259
Publication Title: Journal of Instructional Psychology
Volume: 36
Issue: 3
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-](#)
[perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Calling All White Men: Can Training Help Inclusive Workplaces?

Resource Title: Calling All White Men: Can Training Help Inclusive Workplaces?

Description/Annotation: This 16-page report details a Catalyst study examining the effect that a company-sponsored leadership development program had on employees' work lives at a global engineering company as well as on the work lives of their closest colleagues. According to the report, the study found evidence that the program did, in fact, have a transformative effect, shifting both the mindsets and behaviors of participants. Results indicated that participants not only became significantly more accepting of the notion of white male privilege, but also showed improvement on five critical behaviors for building relationships across difference. The full report is available in PDF format.

Author Last Name: Prime
Author First Name: Jeanine

Additional Author: Foust-Cummings
:
Additional Author: Salib
:
Additional Author: Moss-Racusin
:
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2012, Jul
Page Numbers: 1-16
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

CalWomen Tech Project

Resource Title: CalWomen Tech Project

Description/Annotation: Through this five-year NSF grant to IWITTS (2006-2011), California community colleges receive expert support and technical assistance to help recruit and retain women into technology programs where they are under-represented.

Web site Link: [Link to Resource](#)

More: Eight California community colleges were selected in a competitive process to receive free intensive CalWomenTech training and assistance on recruiting and retaining women in technology programs in which they are under-represented, for approximately 3 years. The focus is terminal associate degrees or certificates in programs with jobs that are high skill and high wage, and have a strong connection to employers and local labor market demand with an emphasis on emerging industries.

Resources: Project information available on site includes:

- profile of each participating community college
- detailed description of training and technical assistance available to 8 participating community colleges as well as resources available to any school or educator
- descriptions of project team leaders, advisors, consultants, partners and evaluators
- description of Total Quality Management (TQM) approach that measures project participant feedback on an ongoing basis
- description of project goals and outcomes

Resources include:

- a proven practices library
- a learning library for educators to help students develop technology building block skills
- womentechworld.org online community for female students
- training/workshop resources focused on how to recruit and retain women and girls in the technology classroom

Site Access Details: This site is publicly accessible.

Partners and Funding: This project is funded by the National Science Foundation (NSF).

Contact E-mail: http://www.iwitts.com/html/contact_us.html

Last Update Date: July 3, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

CalWomenTech Project: Recruiting and Retaining Women in Technology Programs

Resource Title: CalWomenTech Project: Recruiting and Retaining Women in Technology Programs

Description/Annotation: This paper discusses the Institute for Women in Trades, Technology Science's (IWITTS) CalWomen Tech project, which aims to increase the number of women enrolled and retained in STEM education. The paper provides an overview of proven CalWomenTech recruitment and retention strategies and the online CalWomenTech tools available to all educators. The paper also shares the results from surveys of 60 female students in technology courses in which they are underrepresented and describes how the results have been used to evaluate and inform recruitment and retention strategies employed by the colleges.

Author Last Name: Milgram

Author First Name: Donna

Additional Author: Severs
:
Daniella
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors » Retention](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Campus Action Project

Resource Title: Campus Action Project
Description/Annotation: A 4-page program description produced by the American Association of University Women (AAUW) that describes a program intended to promote equity in academia. The Campus Action Project program guide briefly details a program to provide small grants (\$1,000 to \$5,000) to groups of student leaders and campus faculty for projects to address barriers to gender equity.
Author Last Name: AAUW
Publisher: American Association of University Women
Publication Date: 2008
Page Numbers: 1-4
Source: AAUW
Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Career Factors](#) [Career Factors » Organizational Culture](#) [Career Factors » Retention](#)

Can a Media Strategy be an Effective Recruitment and Retention Tool for Women in Engineering and Technology? A Pilot Study

Resource Title: Can a Media Strategy be an Effective Recruitment and Retention Tool for Women in Engineering and Technology? A Pilot Study

Description/Annotation: There have been suggestions that new media programming, such as television dramas with women engineers, computer technicians, and/or engineers in leading roles, might help attract more women to these fields. This paper identifies a theoretical rationale for a media centered strategy. It involves using the mass media to create a more positive understanding of women in these professions. It then describes a pilot study that utilized a national sample.

Author Last Name: Wasburn

Author First Name: Mara

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Media & Entertainment](#)

Can Diversity in the Undergraduate Engineering Population be Enhanced Through Curricular Change

Resource Title: Can Diversity in the Undergraduate Engineering Population be Enhanced Through Curricular Change

Description/Annotation: This study reviews curricular innovations attempted to date as a basis for rebuilding the undergraduate engineering curriculum from the ground up. The goal is to produce a curriculum that retains the salient technical material but enhances the link between fundamentals and applications, reduces critical path lengths in the course sequence, introduces team experiences into all courses, and creates an atmosphere of inclusion rather than exclusion. The new curriculum will require trial, assessment, and revision before it is ready for adoption.

Author Last Name: Busch-Vishniac

Author First Name: Ilene J.

Additional Author: Jarosz

: Jeffrey P.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#)
» [Gender Diversity](#)

Can I Really Complete this CSE Doctoral Degree? Women's Confidence and Self-rated Abilities

Resource Title: Can I Really Complete this CSE Doctoral Degree? Women's Confidence and Self-rated Abilities

Description/Annotation: Confidence affects persistence in computer science and computer engineering (CSE) doctoral programs. With data from 328 doctoral women in CSE, this study examined the relationships between confidence and academic self-ratings for women in different stages of doctoral study, with and without accounting for contextual factors that predict confidence. Also examined are factors that may predict self-ratings. Findings reveal that these women are generally confident that they will earn their doctoral degree. Their academic self-ratings positively predict confidence even when contextual factors are taken into account, although the predictions vary across stages in doctoral education. Certain individual characteristics are associated with self-ratings. Explanations and implications of these findings are discussed. Funded by NSF CNS under award #0413538.

Author Last Name: Chao
Author First Name: Jie
Additional Author: Cohoon
: J.M.
Publication Date: 2010

Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-CISE-CNS Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Can I Really Complete This CSE Doctoral Degree? Women's Confidence and Self-Rated Abilities

Resource Title: Can I Really Complete This CSE Doctoral Degree? Women's Confidence and Self-Rated Abilities

Description/Annotation: Confidence affects persistence in computer science and computer engineering (CSE) doctoral programs. With data from 328 doctoral women in CSE, this study examined the relationships between confidence and academic self-ratings for women in different stages of doctoral study, with and without accounting for contextual factors that predict confidence. Also examined are factors that may predict self-ratings. Our findings reveal that these women are generally confident that they will earn their doctoral degree. Their academic self-ratings positively predict confidence even when contextual factors are taken into account, although the predictions vary across stages in doctoral education. Certain individual characteristics are associated with self-ratings. Explanations and implications of these findings are discussed. Funded by NSF CNS under award #0413538.

Author Last Name: Chao
Author First Name: Jie
Additional Author: Cohoon
:
Publication Date: 2010
Page Numbers: F2H-1 - F2H-7
Publication Title: Frontiers in Education Conference
Volume: 2010
Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-CISE-CNS Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Can the Language of Tenure Criteria Influence Women's Academic Advancement?

Resource Title: Can the Language of Tenure Criteria Influence Women's Academic Advancement?

Description/Annotation: **Background:** Women are not advancing to leadership positions in academic medicine at rates predicted by their representation in medical school over the past 20 years. The prejudice persists, often as an unconscious mental model, that leaders should be men. We examined whether the presence of the word “leader” in written tenure criteria may have a differential impact on promotion of men and women in elite medical schools. **Methods:** We used a retrospective, descriptive design to study 24 academic medical centers top-ranked in both NIH funding and Carnegie classification. The main outcome measure was the slope of regression fit to 7-year annual data on percent faculty who are tenured women(1998–2004) relative to the median slope of all 24 institutions. **Results:** Medical schools with the word “leader” in tenure criteria were more likely to have slopes below the median slope than schools without the word “leader”. **Conclusions:** Being a leader is associated with stereotypic male-gendered traits. Achieving tenure is a key gatekeeping point in advancement toward leadership in academic medicine. Our findings suggest that including the word “leader” in tenure criteria may promote activation and application of biases that disadvantage women's career advancement.

Author Last Name: Marchant

Author First Name: Angela

Additional Author: Bhattacharya

: Abhik

Additional Author: Carnes

: Molly

Publication Date: 2007
Page Numbers: 998-1003
Publication Title: Journal of Women's Health
Volume: 16
Issue: 7
Source: Mary Ann Liebert, Inc. Publishers
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Can Title IX Do for Women in Science and Engineering What It Has Done for Women in Sports?

Resource Title: Can Title IX Do for Women in Science and Engineering What It Has Done for Women in Sports?

Description/Annotation: This one-page article argues for the use of Title IX to encourage change in educational institutions to increase gender equity in science and engineering. Discusses the mechanism by which the observed absence of women occurs ("the culture") and discusses three options for reforming educational institutions: complete demolition, redirecting the structure of rewards to change behavior, or coercion through threats of funding loss. This article argues forcefully for changes that need to take place to help level the playing field in STEM in regards to all diversity.

Author Last Name: Rolison

Author First Name: Debra R.

Publisher: American Physical Society

Publication Date: 2003

Page Numbers: 8

Publication Title: APS News

Volume: 12

Issue: 5

Source: APS

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Canadian Centre for Women in Science, Engineering, Trades and Technology (WinSETT Centre)

Resource Title: Canadian Centre for Women in Science, Engineering, Trades and Technology (WinSETT Centre)

Description/Annotation: Created by the Canadian coalition for Women in Science, Engineering, Trades and Technology, the WinSETT Centre is a catalyst for the sustained employment and progress of women in SETT fields. The Centre will achieve its mission by developing and disseminating through collaboration and partnerships, the tools and expertise useful to industry, government, educational institutions, and women in SETT organizations.

Web site Link: [Link to Resource](#)

Logo:

More: The Centre's activities are to:

- Collect best practices for the recruitment, retention and promotion of women in SETT
- Prepare tool kits and resources for suitable work environments, recommended policies, and innovative procedures for inclusiveness
- Provide workshops using the kits for HR personnel and other representatives from industry and post-secondary institutions
- Work with industry and training institutions to develop innovative approaches to improve participation and achievement of women in SETT
- Communicate and promote ways to make workplaces inclusive and welcoming for minority groups
- Gather statistics and track trends
- Monitor the success of its programs.

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Centre has developed from a major initiative of the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) and builds on CCWESTT's resources for

employers to strengthen the recruitment and retention of women in SETT fields initially in four sectors - oil and gas; construction / trades; post-secondary institutions; and information technology. The WinSETT Centre's current activities include delivery of career information workshops and resources, provision of trades employers' workplace services, and development of women in science and engineering leadership workshops. These current activities are supported in part by grants from the Government of Alberta, Status of Women Canada and other partnerships. After a period to consolidate expertise and establish viability, the Centre will become increasingly self-supporting from fees for services and resources.

Contact E-mail: info@ccwestt.org

Last Update Date: June 4, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT)

Resource Title: Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT)

Description/Annotation: The Canadian Coalition of Women in Engineering, Science, Trades and Technology is a national coalition of 27 groups that promotes women in science, engineering, trades and technology, celebrates their contributions and applies new vision to these fields.

Web site Link: [Link to Resource](#)

Logo:

More: CCWESTT objectives are:

- to be a resource and support network to facilitate the exchange of information
- to promote and support the full participation of women in science, engineering, trades and technology to industry, business, government, and education.

Activities include establishment of the WinSETT Centre and its services, and dissemination of information at CCWESTT biennial conferences, its website, teleconferences, newsletters, and through other media.

Resources:

Resources include:

- Imaginative mini-site on Careers in Your Future
- Canadian statistics
- Conference Proceedings
- Newsletters
- Job Opportunities
- Fellowships, scholarships and financial awards

Site Access Details:

This site is publicly accessible.

Partners and Funding:

CCWESTT projects are supported by grants from the Government of Canada and by financial and in kind contributions from industry, post-secondary and association partners.

Contact E-mail:

info@ccwestt.org

Last Update Date:

June 6, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » International

Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 2006-2010

Resource Title:

Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 2006-2010

Description/Annotation:

This 72-page report is based on an annual survey of Canada's undergraduate and postgraduate university engineering programs. This report assesses trends in engineering enrollment and degrees awarded over a five-year period. Research findings highlight enrollment trends in part-time and full-time engineering programs; depict enrollment trends by discipline, gender, and institution; and determine the number of undergraduate and postgraduate degrees awarded each year. In addition, this report examines gender visibility and female representation in engineering faculty and undergraduate student population.

Author Last Name:

Engineers Canada

Publisher:

Engineers Canada

Publisher Location:

Ottawa, Ontario CANADA

Publication Date:

2011, Oct

Page Numbers:

1-72

Source: Engineers Canada

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Capitalizing on Opportunity Outside the Classroom: Exploring Supports and Barriers to the Professional Development Activities of Computer Science and Engineering Majors

Resource Title: Capitalizing on Opportunity Outside the Classroom: Exploring Supports and Barriers to the Professional Development Activities of Computer Science and Engineering Majors

Description/Annotation: This qualitative study investigated how students capitalize on development opportunities outside of the classroom. Capitalization is defined as proactively and voluntarily seeking out positive opportunities for growth and development. To investigate this construct in the science, technology, engineering, and mathematics context, male and female students were recruited from the computer science and engineering departments of a primarily white institution (PWI) and a historically black university (HBU). Results revealed that students engage in formal and informal capitalization activities for intrinsic and extrinsic reasons.

Author Last Name: Holland

Author First Name: Jonathan M.

Additional Author: Major

:

Debra A.

Additional Author: Morganson

:

Valerie J.

Additional Author: Orvis

:

Karin A.

Publication Date: 2011

Page Numbers: 173-192

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic](#)
[Preparation](#) [Career Factors](#) » [Professional Development](#)

Capturing stereotypes: Developing a scale to explore U.S. college students' images of science and scientists

Resource Title: Capturing stereotypes: Developing a scale to explore U.S. college students' images of science and scientists

Description/Annotation: The purpose of this study was to develop a contemporary measure of undergraduates' stereotypes of scientists that will make it possible to examine similarities and differences across time, place, culture, and demographics. The Stereotypes of Scientists (SOS) Scale is intended to be a catalyst for research that explores the degree to which college students' current stereotypes of scientists vary by their gender, ethnicity, country, education level, and academic major. The research was designed to identify the character and content of contemporary college students' images of scientists, both what they 'do' in their day-to-day work and who they 'are' as people. The majority of participants (n = 1,106) were college students. Fifty-seven possible items were generated from several sources. Results of exploratory factor analyses for the Stereotypes of Scientists (SOS) Scale indicate a twenty-two item, two-factor solution with the constructs of Professional Competencies (13 items) and Interpersonal Competencies (9 items). Further analyses of the SOS Scale found no effect of participants' gender on the construct validity or reliability of the scale. Thus, in the sample, women and men had similar responses to the items. A review of the items in the two factors suggests that students have complex, and sometimes contradictory, images of scientists, which resonate with but do not neatly reproduce an alignment between images of 'scientists' and Western norms related to masculinity. Funded by NSF GSE under award #0522860.

Author Last Name: Wyer
Author First Name: Mary
Additional Author: Schneider
:
Jennifer
Additional Author: Nassar-McMillan
:
Sylvia
Additional Author: Oliver-Hoyo
:
Maria
Publication Date: 2010
Page Numbers: 382-415
Publication Title: International Journal of Gender, Science, and Technology
Volume: 2
Issue: 3
Source: The Open University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Cultural Influences](#) » [Stereotype Threat](#)

Career Advancement Program for Tenured SEM Women Faculty

Resource Title: Career Advancement Program for Tenured SEM Women Faculty
Description/Annotation: Description of Kansas State University Career Advancement Program (CAP) for tenured women faculty in science and engineering to advance women in mid-career, senior rank and leadership positions. Includes feedback from grantees and suggestions for ideal program.
Author Last Name: Dyer
Author First Name: Ruth A.
Additional Author: Montelone

: Beth A.
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 10
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Career and Mentor Satisfaction among Canadian Engineers: Are there Differences based on Gender and Company-Specific Undergraduate Work Experiences?

Resource Title: Career and Mentor Satisfaction among Canadian Engineers: Are there Differences based on Gender and Company-Specific Undergraduate Work Experiences?

Description/Annotation: This paper examines the quantitative data on the relationships between prior undergraduate work experiences with their current employers and male and female respondents' career and mentor satisfaction. The results suggest that undergraduate work experience programs may play a role in enhancing engineers' perceptions of their recognized authority/ expertise within their field. Results also show that prior work experience with current employers is related to satisfaction with mentors. Furthermore, a significant interaction effect was found for both prior work experience and gender as they relate to mentor satisfaction. Female engineers with prior work experience were the most satisfied with their mentors, while those without prior work experience were the least satisfied.

Author Last Name: Ingram
Author First Name: Sandra
Additional Author: Bruning
:
Additional Author: Mikawoz

: Irene
Publication Date: 2009, Apr
Page Numbers: 131-144
Publication Title: Journal of Engineering Education
Volume: 98
Issue: 2
Source: Wiley
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Career Clusters: Forecasting Demand for High School Through College Jobs, 2008-2018

Resource Title: Career Clusters: Forecasting Demand for High School Through College Jobs, 2008-2018

Description/Annotation: This report from the Center on Education and the Workforce at Georgetown University identifies 16 career clusters which represent the full array of related occupational opportunities and education requirements. The report includes tables and figures on salaries and job availability by field and educational attainment. Findings show that only one in three of high school-level jobs will pay wages of \$35,000 or more, and five out of six jobs available for workers with a bachelor's degree pay more than \$35,000 a year and average \$60,000. In addition to the full national report available in PDF format, Career Clusters contains an executive summary and a state-level analysis of jobs by career cluster.

Author Last Name: Carnevale

Author First Name: Anthony P.

Additional Author: Smith

: Nicole

Additional Author: Stone

: James R.

Additional Author: Kotamraju

: Pradeep
Additional Author: Steuernagel
: Bruce
Publisher: Georgetown University Center on Education and the Workforce
Publisher Location: Washington, DC
Publication Date: 2011, Nov
Page Numbers: 1-216
Source: Georgetown University
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Career Development Theory for Women in Engineering

Resource Title: Career Development Theory for Women in Engineering
Description/Annotation: Career counseling and career theory provide insight into the reasons and ways that people choose their careers and can provide the foundation of activities designed to provide support and guidance to women who have chosen (or have yet to choose) a unique and perhaps difficult career path. Newer models seek to address the concern that women's career development is often non-linear, both complemented and frustrated by multiple-role fulfillment, and shaped by the structure of opportunity. Such models often take into consideration the larger social context in which people function, opening a broader range of opportunities for intervention.
Author Last Name: AWE
Publisher: SWE-AWE
Publication Date: 2005
Volume: Applying Research to Practice (ARP) Series
Source: ARP
Source Type: Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Career Motivations of Freshman Engineering and Non-engineering Students: A Gender Study

Resource Title: Career Motivations of Freshman Engineering and Non-engineering Students: A Gender Study

Description/Annotation: A social cognitive career theory framework and Vroom's valence model are used to examine the importance that female freshman engineering students place on various career-related outcomes, compared with other female freshmen and with male engineering students. The female engineering students were significantly different from both groups on several measures. This study finds that, in terms of certain career-related outcome valences, women students who choose engineering are not representative of women students in general, nor are they representative of engineering students in general. On three measures, they do not even fall between both comparison groups. Funded by NSF GSE under award #0624444.

Author Last Name: Orr

Author First Name: Marisa

Additional Author: Hazari
:
Zahra

Additional Author: Sadler
:
Philip

Additional Author: Sonnert
:
Gerhard

Publication Date: 2009

Publication Title: Proceedings of the American Society for Engineering Education

Source: Clemson University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Professional Development](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Career Success for Female STEM Faculty at Public Two-Year Institutions

Resource Title:	Career Success for Female STEM Faculty at Public Two-Year Institutions
Description/Annotation:	This paper presents a study to investigate the extent to which the factors associated with advancement and employment outcomes in the four-year sector translate to the two-year institutional context. This paper also explores the extent to which there exist other factors affecting female faculty members' employment outcomes that are unique to two-year institutions. This study examines factors associated with community college female faculty members' academic career success and employment outcomes in STEM fields using secondary data from the 2004 National Study of Postsecondary Faculty (NSOPF). Funded by NSF ADVANCE under award #0930229.
Author Last Name:	Koonce
Author First Name:	David
Additional Author:	Conley
:	Valerie
Additional Author:	Anderson
:	Cindy
Publication Date:	2010
Publication Title:	2010 ASEE Annual Conference & Exposition
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

Career, Family, and Institutional Variables in the Work Lives of Academic Women in the Chemical Sciences

Resource Title: Career, Family, and Institutional Variables in the Work Lives of Academic Women in the Chemical Sciences

Description/Annotation: This article presents quantitative results of a study of 139 academic women in the chemical sciences who participated in a professional development program sponsored by the Committee on the Advancement of Women Chemists. The study investigated variables frequently examined in the vocational psychology of women: approaches to achievement, coping strategies, career advancement, the home-work interface, workplace climate, and mentoring. The article presents and discusses results in the context of unique issues faced by women in scientific careers.

Author Last Name: Fassinger

Author First Name: Ruth E.

Additional Author: Scantlebury
: Kathryn

Additional Author: Richmond
: Geraldine

Publication Date: 2004

Page Numbers: 297-316

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Professional Development](#)

Careers in Drug and Alcohol Research: An Innovative Program for Young Appalachian Women

Resource Title: Careers in Drug and Alcohol Research: An Innovative Program for Young Appalachian Women

Description/Annotation: Supported by a grant from the National Institute on Drug Abuse, the University of Kentucky's Center on Drug and Alcohol Research developed the Young Women in Science Program to encourage young women from Appalachia to pursue scientific careers in drug and alcohol research. This 3-year program, which involved 26 young women entering the ninth grade in 13 counties in southeastern Kentucky, included a summer residential program, community educational sessions, and matching students with mentors.

Author Last Name: Noland

Author First Name: Melody Powers

Additional Author: Leukefeld

: Carl G.

Additional Author: Reid

: Caroline E.

Publication Date: 2001

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 3

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Careers of Young Scientists: Preferences, Prospects, and Realities by Gender and Field

Resource Title: Careers of Young Scientists: Preferences, Prospects, and Realities by Gender and Field

Description/Annotation: Using data from a survey of doctoral students in five science and engineering fields, this article analyzes career preferences and

prospects for women and men. Findings point to the intricacy of the relationship between subjective and objective career prospects, and to the ways in which doctoral students' reported career preferences and expectations are conditioned by what is regarded as 'feasible,' by gender and field in science.

Author Last Name: Fox
Author First Name: Mary Frank
Additional Author: Stephan
:
Paula
Publication Date: 2001
Page Numbers: 109-122
Publication Title: Social Studies of Science
Volume: 31
Issue: 1
Source: Sage
Source Type: Summary, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Caring About Connections: Gender and Computing

Resource Title: Caring About Connections: Gender and Computing
Description/Annotation: Male and female computer science students from Carnegie Mellon University were interviewed over four years about their perceptions of computer science and their experiences in the program. This article discusses the results of the interviews, along with discussions about how our culture views men and women in computing careers. The fact that the computer science curriculum and culture adds prestige to men and devalues women is explored. For academics, university leadership, and students.

Author Last Name: Margolis
Author First Name: Jane
Additional Author: Fisher
:
Allan

Additional Author: Miller
:
Faye
Publisher: Institute of Electrical & Electronics Engineers
Publisher Location: New York, NY
Publication Date: 1999
Page Numbers: 13-20
Publication Title: IEEE Technology & Society Magazine
Volume: 18
Issue: 4
Source: IEEE
DOI Bookmark: 10.1109/44.808844
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Individual Beliefs and Behaviors](#) Individual Beliefs and Behaviors » [STEM Career Interest/Awareness](#)

Cascading Gender Biases, Compounding Effects: An Assessment of Talent Management Systems

Resource Title: Cascading Gender Biases, Compounding Effects: An Assessment of Talent Management Systems

Description/Annotation: This report focuses on an area with little completed research- talent management systems- which is a major concern to most CEOs. Data was collected from 110 corporations over 19 industries and firms through interviews and online surveys. It is known that gender stereotyping creates barriers to women's advancement, and this report looks at gender bias from its introduction into talent management systems and how it flows through the company and transfers to different people. For industry leaders and management.

Author Last Name: Warren
Author First Name: Anika K.
Publisher: Catalyst

Publisher Location: New York, NY
Publication Date: 2009, Feb
Page Numbers: 1-44
Source: Catalyst
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#)

Catalyst Quick Takes

Resource Title: Catalyst Quick Takes

Description/Annotation: A series of statistics-based summaries that cover many topics on a broad or specific nature, including work-life balance, earnings and income, women in high tech, education, women of color, and more. Paints a quick picture of the status of a particular situation at a particular point in time. Excellent information for presentations, speeches, or a foundation for more in-depth research. For industry, academics, and workforce.

Author Last Name: Catalyst

Publisher: Catalyst

Publisher Location: New York, NY

Source: Catalyst

Source Type: Database

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

Catalyst

Resource Title: Catalyst

Description/Annotation: Catalyst is a non-profit membership organization founded in 1962 to advance women and business on a global scale. This research-based organization provides information to member organizations

and the public in three major practice areas: Women in Leadership, Organizational Change & Effectiveness, and Women of Color/Visible Minorities.

Web site Link:

[Link to Resource](#)

More:

Catalyst works with business to increase inclusiveness and provide additional opportunities for women. Member organizations also benefit from additional services including advisory services, an information center, corporate board services, conferences, events, and awards.

Resources:

Research reports and metrics are provided by a large team of expert researchers and consultants. Research reports examine women and men in business, women's progress in business, and barriers to advancement. A major focus of Catalyst's work includes how to improve diversity and inclusion in the workplace.

Catalyst's Metrics are a large and unique offering of statistical information. An easy-to-use [search tool](#) allows you to access the following:

- Research reports based on surveys and interviews with executives with proposed solutions to issues.
- Making Change handbooks to address workplace issues
- Quick-takes for statistics-based overviews
- Diversity & Inclusion Practices
- Pyramids - diagrams showing statistical snapshots of how women are represented in business

Site Access Details:

Website and most research information is available to the public without joining or registering. Some information available free to member organizations is also available for purchase by the general public. Member organizations include over 400 corporations, academic institutions, and professional firms, and members of these organizations can login to access additional information.

Partners and Funding:

Catalyst is a non-profit organization supported by member organizations, donations from individuals and businesses, research sponsorships, and sponsorships for the annual Catalyst Awards Conference and Awards Dinner.

Contact Name:

Anabel Prez, Vice President of Development

Contact E-mail: aperez@catalyst.org

Last Update Date: August 11, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Categorization of Minority Groups in Academic Science and Engineering

Resource Title: Categorization of Minority Groups in Academic Science and Engineering

Description/Annotation: This paper utilizes data from the 2001 NSF Survey of Doctorate Recipients to explore how productivity and salary vary across ethnicity for academic scientists and engineers. This paper explicitly explores the impact of two different definitions of minority groups on measures of productivity and compensation patterns among academic scientists and engineers. The results indicate that minority faculty members are significantly more productive than nonminority faculty members only when Asians are included as a part of the minority group.

Author Last Name: Sabharwal

Author First Name: Meghna

Additional Author: Corley

: Elizabeth A.

Publication Date: 2008

Page Numbers: 427-446

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Career Factors Career Factors » Employment Career Factors » Professional Development Career Factors » Salary

Celebrating Women in Science & Engineering Grant Program at UW-Madison

Resource Title:	Celebrating Women in Science & Engineering Grant Program at UW-Madison
Description/Annotation:	This program provides funds to departments, centers, or student groups at UW-Madison wishing to enhance their own seminar schedules or especially to create new workshops, symposia, lecture series, or similar events in line with the goals of WISELI: to promote the participation and advancement of women in science and engineering. At UW-Madison, this program has successfully increased the visibility of women in STEM, and decreased isolation of women faculty, staff and students in STEM departments.
Author Last Name:	WISELI
Publisher:	University of Wisconsin-Madison
Publisher Location:	Madison, WI
Source:	WISELI
Source Type:	Website with program resources

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Center for Advancing Science & Engineering Capacity (Capacity Center)

Resource Title:	Center for Advancing Science & Engineering Capacity (Capacity Center)
Description/Annotation:	The American Association for the Advancement of Science (AAAS) Center for Advancing Science & Engineering Capacity ("Capacity Center") provides consulting services to individual universities and colleges seeking to increase the participation of U.S. students, especially women and underrepresented minorities, in science and engineering careers.
Web site Link:	Link to Resource

More: The Center draws on Education and Human Resources and other expertise at AAAS, as well as the private sector, to help schools recruit and retain students.

Resources: As a human resource development consulting service for institutions of higher education, the Center provides a wealth of information, including:

- News archive
- Law, Policy & Practice links and related publications
- Reports & Publications
- Organizational Resources
- Presentations
- Research Catalogue
- Annual Meeting Information

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Capacity Center was established by AAAS and is funded by a \$400,000 grant from the Alfred P. Sloan Foundation. The Center is overseen by an advisory committee as well as organizational and individual consultants.

Contact Name: Daryl Chubin

Contact E-mail: dchubin@aaas.org

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Center for Applied Special Technology (CAST)

Resource Title: Center for Applied Special Technology (CAST)

Description/Annotation: CAST is a nonprofit research and development organization that works to expand learning opportunities for all individuals, especially those with disabilities, through Universal Design for Learning (UDL), a set of principles for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments.

Web site Link: [Link to Resource](#)

More: CAST has earned international recognition for its innovative contributions to educational products, classroom practices, and policies. Its staff includes specialists in education research and

policy, neuropsychology, clinical/school psychology, technology, engineering, curriculum development, K-12 professional development, and more.

Resources: The CAST website includes a wealth of information, including:

- Research & Development projects
- Learning Tools
 - UDL Book Builder
 - UDL Curriculum Self-Check
 - Science Writer
 - Strategy Tutor
- Professional Development
 - Custom Consultation
 - On-Site Institutes
- Library
 - Presentations
 - Articles
 - Books
 - Video

Site Access Details: This is a publicly accessible site.

Partners and Funding: CAST's work is made possible by the generous support of foundations, corporations, government agencies, and individuals?all partners in the effort to make education more accessible, rewarding, and effective for all through UDL.

Contact E-mail: cast@cast.org

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) »
[Curriculum Educational Factors](#)

Center for Talent Innovation (CTI)

Resource Title: Center for Talent Innovation (CTI)

Description/Annotation: The Center provides research and works with employers to enhance the work-life balance of employees, helping them realize their full potential despite obstacles of gender, race, and class.

Web site Link: [Link to Resource](#)

More: Originally the Center for Work-Life Policy, the organization changed its name to CTI in 2012.

- Resources:
- Initiatives
 - Off-Ramps and On-Ramps Strategic Advisory Services
 - Extreme Jobs Strategic Advisory Services
 - The Hidden Brain Drain Task Force
 - Work-Life Balance in Small Businesses
 - Research & Publications
 - News Room
 - Press Releases
 - Articles
 - Newsletters

Site Access Details: Free access to website for all users.

Partners and Funding: Approximately 60 corporate sponsors support the Center, such as Alcoa, Inc., General Electric Company, Johnson & Johnson, Microsoft Corporation, Time Warner, Xerox, and PepsiCo.

Contact E-mail: cwlp@worklifepolicy.org

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Center for the Advancement of Scholarship on Engineering Education (CASEE)

Resource Title: Center for the Advancement of Scholarship on Engineering Education (CASEE)

Description/Annotation: CASEE is the first operating center of the National Academy of Engineering. CASEE aims to improve the quality of the engineering workforce by enhancing the quality of engineering education.

Web site Link: [Link to Resource](#)

More: In pursuing this aim, CASEE takes a research and innovation approach to improving the process of engineering education and promotes the translation of innovative knowledge to widespread improved practice in classrooms, laboratories, and worksites.

CASEE specific projects include:

- [Annals of Research on Engineering Education \(AREE\)](#) - online resource of journal articles aimed at the dissemination of findings to the classroom environment.
- [Engineering Equity Extension Service \(EEES\)](#) - aims to increase the number of women attaining undergraduate degrees in mechanical and electrical engineering.

- **Peer Reviewed Research Offering Validation of Effective and Innovative Teaching (PR2OVE-IT)** - evolving digital clearinghouse that summarizes the available research on educational interventions designed to enhance student learning, retention, and professional success in post-secondary engineering and other allied sciences.

Resources: CASEE site resources include:

- **CASEE's knowledge portal** contains links to multimedia resources, CASEE documents, Education Research Reports, NAE, NSF, ASEE and ABET Reports.
- **Organizational and individual affiliates** contains research foci and contact information.
- **Resources organized by audience** (Faculty/Instructors/Teachers, Administrators, Policy Makers, and Industry)
- **Applying Research to Practice Series (ARP)**

Site Access Details: The site is open to the public.

Partners and Funding: In 1999, the NAE instituted a four-fold initiative on engineering education since 1999. The final aspect of this initiative was realized in 2002 with the creation of CASEE. CASEE activities and staff are supported by generous gifts from Applied Materials, Inc., The Boeing Company, ExxonMobil Foundation, Hewlett-Packard Company, Intel Foundation, National Instruments Foundation, National Science Foundation, NAE Fund, The O'Donnell Foundation, and individual NAE members including Dane and Mary Louise Miller and Walter L. Robb.

Contact Name: Norman Fortenberry

Contact E-mail: nfortenb@nae.edu

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction Educational Factors](#) » [Retention](#)

Center for Women and Information Technology (CWIT)

Resource Title: Center for Women and Information Technology (CWIT)

Description/Annotation: Aims to increase the representation of women in Information Technology careers and expand research of gender and technology.

Web site Link: [Link to Resource](#)

Resources: Resources include:

- Books and journal articles about women and Information Technology
- Financial aid information for undergraduates and graduates
- Bibliography on Gender and Technology in Education created by gender equity specialist Jo Sanders includes resources through 2005
- Gender-related electronic forums of listservs, including WMST-L
- Resources for girls (websites, programs, financial aid, games)
- Curricular resources including over 600 women- and gender-related syllabi
- Over 800 Women's Studies Programs, Departments, & Research Centers
- Women's Studies/Issues websites
- Women Science and Technology resources Initiatives for K-12, Post-secondary and Partners

Site Access Details: This site is publicly accessible.

Partners and Funding: CWIT was established at the University of Maryland Baltimore County (UMBC) in July 1998.

Contact Name: Penny Rheingans

Contact E-mail: rheingan@cs

Last Update Date: May 14, 2009

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Centre for Women in Science and Engineering Research (WiSER) at Trinity College Dublin

Resource Title: Centre for Women in Science and Engineering Research (WiSER) at Trinity College Dublin

Description/Annotation: Irish organization whose aim is to engage and encourage women researchers in Science, Engineering and Technology (SET).

Web site Link: [Link to Resource](#)

More: The Centre for Women in Science and Engineering Research (WiSER) was established at Trinity College in November 2006 as

the result of an initiative from Science Foundation Ireland, which aimed to address the under-representation of women in Science, Engineering and Technology (SET) careers.

Part of the motives for WiSER are to support Irish global competition and to increase the diversity of research perspectives.

Resources: This eminently readable website provides context for the origins of WiSER and its role in the global efforts to address the underrepresentation of women in SET.

Resources include

- Activities such as Springboard, an award-winning personal and professional development program
- Mentoring program
- Resources for Academic staff including funding opportunities, training and development, and career planning
- Profiles of Scientists
- Organizational "Good Practices" aimed at creating cultures of diversity
- Policy & Statistics including Irish, UK, EU and US initiatives
- Academic Library in which journal articles are organized by women-in-SET themes

Site Access Details: The site is publicly accessible.

Partners and Funding: WiSER was created from funding by the Science Foundation Ireland (SFI).

Contact Name: Caroline Roughneen (Director)

Contact E-mail: wiser@tcd.ie

Last Update Date: May 14, 2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » International Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Challenges and Opportunities for Women in Science and Engineering

Resource Title: Challenges and Opportunities for Women in Science and Engineering

Description/Annotation: This four-page article addresses some of the less quantifiable biases against women in science and engineering faculty. Several

anecdotes are presented, and the issue of the perceived stigma against taking advantage of such programs as tenure-clock adjustments is discussed. The author also proposes greater application of Title IX to university faculty. This is a very good, brief editorial on some of the challenges women faculty face.

Author Last Name: Byko
Author First Name: Maureen
Publisher: Springer Sciences and Business Media, LLC
Publisher Location: NY, NY
Publication Date: 2005, Apr
Page Numbers: 12-15
Publication Title: JOM
Volume: 57
Issue: 4
Source: TMS
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Stereotype Threat](#)

Challenging Cultural Stereotypes of Scientific Ability

Resource Title: Challenging Cultural Stereotypes of Scientific Ability

Description/Annotation: Article in edited collection that includes concrete ways to analyze classroom interactions that may or may not be "racial," deal with racial inequality and "diversity," and teach to high standards across racial lines. Topics range from using racial incidents as teachable moments and responding to the "n-word" to valuing students' home worlds, dealing daily with achievement gaps, and helping parents fight ethnic and racial misconceptions about their children. Questions following each essay prompt readers to examine and discuss everyday issues of race and opportunity in their own classrooms and schools.

Author Last Name: Maria (Mia)
Author First Name: Ong

Publisher: The New Press
Publisher Location: NY
Publication Date: 2008, Jun
Publication Title: Everyday Antiracism: Getting Real About Race in School
Source Type: Available for sale
Link to Additional Source Material:

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Stereotype Threat](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Chance Favors the Prepared Mind: Mathematics and Science Indicators for Comparing States and Nations

Resource Title: Chance Favors the Prepared Mind: Mathematics and Science Indicators for Comparing States and Nations

Description/Annotation: Data is presented in this 118 page document comparing state-by-state results from students in grade 8 using the National Assessment of Educational Progress (NAEP) for students in the U.S. and the Trends in International Mathematics and Science Study (TIMMS) for international students. Comparisons are available between states and for states compared to other nations.

Author Last Name: Phillips
Author First Name: Gary
Publisher: American Institutes for Research
Publication Date: 2007, Nov 14
Page Numbers: 1-118
Source: AIR
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Change the Equation (CTEq)

Resource Title: Change the Equation (CTEq)

Description/Annotation: Change the Equation (CTEq) is a nonprofit, nonpartisan, CEO-led initiative that is mobilizing the business community to improve the quality of science, technology, engineering and mathematics (STEM) learning in the United States. The CTEq coalition aims to influence and lead the STEM learning movement for improving teaching and all students' STEM learning, both in the classroom and beyond.

Web site Link: [Link to Resource](#)

More: Since its launch in September 2010, CTEq has helped its more than 100 members connect and align their philanthropic and advocacy efforts. CTEq's coalition of members strives to sustain a national movement to improve PreK-12 STEM learning by leveraging and expanding its work focusing on three goals: improving philanthropy, inspiring youth, and advocating change.

Resources: The CTEq website contains a wealth of information to advocate change in PreK-12 STEM learning, including:

- [STEMtistics](#): spotlights facts & figures and guide the STEM conversation through data
- [STEM Vital Signs](#): briefings and reports on the condition of STEM learning in all 50 states
- [STEMworks Database](#): database of programs that deepen young people's learning in STEM
- [Newsroom](#): newsreleases, blog, newsletter, and videos

Site Access Details: This is a publicly accessible site.

Partners and Funding: CTEq is a non-profit with approximately 100 member organizations. CTEq is run by a 5-person executive office staff and is overseen by a Board of Directors.

Last Update Date: July 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

CHANGE: A Brief Introduction to Cooperative Learning

Resource Title: CHANGE: A Brief Introduction to Cooperative Learning

Description/Annotation: Active learning is a category of pedagogies established as being extremely effective in engaging and maintaining student interest, thereby leading to better student performance and retention of subject matter. The responsibility for learning is focused on the

learner. Many active learning strategies involve some form of group work. Group work covers all kinds of multiple-person active instructional activities along formal – informal and structured – unstructured spectra, thereby parsing out as “cooperative” and “collaborative” learning activities. This is a two-page PDF download of a CHANGE brief. CAPSULE. In this issue of CHANGE, we provide a review of cooperative learning, a pedagogy that has been proven to be a good fit with the preferred learning and working styles of millenials in general and students from underrepresented populations in science, technology, engineering, and mathematics (STEM), including females, in particular.

Author Last Name: CASEE
Publisher: NAE-CASEE EEES
Publication Date: 2009, Aug
Page Numbers: 2
Volume: Applying Research to Practice (ARP) Series
Source: NAE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

CHANGE: Factors Supporting the Retention/Persistence of Female Undergraduates

Resource Title: CHANGE: Factors Supporting the Retention/Persistence of Female Undergraduates

Description/Annotation: This is a two-page PDF download of a CHANGE brief. Identifies five factors which may ameliorate certain institutional barriers for female undergraduates in engineering based on a review of programs that have consistently conferred at least 30%, on average, of their baccalaureate degrees to females since AY 2001. The identification of these supportive factors is the first step in changing institutional characteristics that are not supportive of female undergraduate engineering students.

Author Last Name: CASEE

Publisher: NAE-CASEE EEES
Publication Date: 2009, Aug
Page Numbers: 2
Volume: Applying Research to Practice (ARP) Series
Source: NAE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

CHANGE: The Use of Questions in the Classroom

Resource Title: CHANGE: The Use of Questions in the Classroom

Description/Annotation: This is a two-page PDF download of a CHANGE brief. Appropriate questions asked of or by students in a classroom can improve understanding of the material at hand as well as develop the critical thinking skills crucial to lifelong learning. When teachers unconsciously call more on male students than on female students or give males more time to answer a question than females before giving them the answer, female students are put at a disadvantage. This suite of documents provides insight into appropriate types of questions, ways to ask questions, and methods of encouraging all students to find answers to their questions.

Author Last Name: CASEE

Publisher: NAE-CASEE EEES

Publication Date: 2009, Aug

Page Numbers: 2

Volume: Applying Research to Practice (ARP) Series

Source: NAE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Changes in the Nature of Faculty Work in Engineering during the First Three Years

Resource Title:	Changes in the Nature of Faculty Work in Engineering during the First Three Years
Description/Annotation:	The literature frames the socialization process of new faculty members as if they face an identical set of challenges in each of their pre-tenure years, regardless of discipline. This research uses a longitudinal research design and interview data to determine whether there are differences by year in the experiences of a cohort pre-tenure faculty in engineering at a research-intensive university. Two major shifts in priorities occurred within the three years: a shift from an emphasis on securing external funding to managing a research team and multiple sources of funding; and secondly, a shift from concern about the ambiguity of tenure expectations to growing confidence about expectations attributed largely to clear feedback about performance. Research findings presented here suggest that new faculty will benefit from professional development opportunities that address such issues as conflict management, interpersonal communication, and essentials of supervision in a team and laboratory setting.
Author Last Name:	Creamer
Author First Name:	Elizabeth G.
Additional Author:	Saddler
:	Tonya
Additional Author:	Layne
:	Margaret
Publication Date:	2008
Publication Title:	ASEE Conference Proceedings
Source:	ASEE
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Changing Middle-School Students' Attitudes and Performance Regarding Engineering with Computer-based Social Models

Resource Title: Changing Middle-School Students' Attitudes and Performance Regarding Engineering with Computer-based Social Models

Description/Annotation: Women's under-representation in fields such as engineering may result in part from female students' negative beliefs regarding these fields and their low self-efficacy for these fields. In this experiment, we investigated the use of animated interface agents as social models for changing male and female middle-school students' attitudes toward engineering-related fields, their self-efficacy for these fields, and their math performance. Students interacted with either a female or a male computer-based agent or they did not interact with an agent. The female agent increased interest, utility beliefs, self-efficacy, and math performance compared to control and, for boys, decreased stereotyping. Mediation analyses indicated that the female agent facilitated interest and math performance by enhancing self-efficacy. The findings indicate that interface agents may be used effectively as social models for influencing attitudes and beliefs and supporting performance. Funded by NSF GSE under award #0429647.

Author Last Name: Plant

Author First Name: E. Ashby

Additional Author: Baylor
: Amy L.

Additional Author: Doerr
: Celeste E.

Additional Author: Rosenberg-Kima
: Rinat B.

Publication Date: 2009

Page Numbers: 209-215

Publication Title: Computers & Education

Volume: 53

Issue: 2

Source: ScienceDirect

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Cultural Influences Educational Factors Cultural Influences » Media & Entertainment Publications by Funder » NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Changing Our World: True Stories of Women Engineers

Resource Title: Changing Our World: True Stories of Women Engineers

Description/Annotation: True stories of hundreds of women engineers across many different fields. Full color book designed to be used to demonstrate the effect women engineers have on our world, and to educate and encourage young girls to explore the possibility of choosing engineer as a career. Best suited for parents, students, and high school counselors.

Author Last Name: Hatch

Author First Name: Sybil E.

Publisher: American Society of Civil Engineers

Publisher Location: Reston, VA

Publication Date: 2006

Page Numbers: 1-256

Source: Amazon

Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Changing STEM Associate's Degree Production in Public Associate's Colleges from 1985 to 2005: Exploring Institutional Type, Gender, and Field of Study

Resource Title: Changing STEM Associate's Degree Production in Public Associate's Colleges from 1985 to 2005: Exploring Institutional Type, Gender, and Field of Study

Description/Annotation: This paper explores differences in associate's degree production in the STEM-related fields of engineering, engineering technology, biological/biomedical science, mathematics/statistics, physical sciences, and science technology at publicly controlled, stand-alone, rural-serving, suburban-serving, and urban-serving associate's degree colleges in the United States, its territories, and its protectorates. The study compares production of STEM-related associate's degrees in 2005-2006 with the number of associate's degrees awarded in 1985-1986 and 1995-1996, and found that while increases have occurred in the past decade, the improvements that have been realized have still not bought STEM-related associate's degree production back to the overall level of 20 years ago.

Author Last Name: Hardy

Author First Name: David E.

Additional Author: Katsinas

: Stephen G.

Publication Date: 2010

Page Numbers: 7-30

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16

Issue: 1

Source: Begel House

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#)
» [Retention](#)

Changing the Continuing Chilly Campus Climate for Faculty Women: Recommendations Based on a Case Study

Resource Title: Changing the Continuing Chilly Campus Climate for Faculty Women: Recommendations Based on a Case Study

Description/Annotation: This qualitative case study compares the concerns expressed in 1988 by women faculty at Sycamore State University, a Midwestern Research I University, with those women faculty discussed in 1997, when policies apparently intended to correct discriminatory conditions and practices had been in place for almost a decade. The research, foregrounding the voices of women faculty, confronts the question of why, despite the implementation of these policies, many of their concerns remain. It also suggests strategies for meeting some of the challenges women faculty, especially those in science, technology, engineering, and mathematics, still confront.

Author Last Name: Wasburn

Author First Name: Mara H.

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Changing the Conversation: Messages for Improving Public Understanding of Engineering

Resource Title: Changing the Conversation: Messages for Improving Public Understanding of Engineering

Description/Annotation: This book strives to illustrate that in order to maintain innovation in the United States, we rely on engineering as one of the important tools. The public does not have a clear enough understanding of the engineering field, therefore young people are not encouraged to go into engineering programs and choose engineering careers. Positive messages were identified and tested to help young people, especially girls and underrepresented minorities, understand the importance of engineering. Important for educators, policy makers, and parents.

Author Last Name: NAE

Publisher: The National Academies Press
Publisher Location: Washington, D.C.
Publication Date: 2008
Page Numbers: 1-164
Source: NAE
Database Name: The National Academies Press
Source Type: Partial text, Available for sale
Link to Additional Source
Material:

Resource Type Categories: Book Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Changing the Division of Household Labor: A Negotiated Process Between Partners

Resource Title: Changing the Division of Household Labor: A Negotiated Process Between Partners

Description/Annotation: An examination of women's assertiveness in domestic settings and how the division of household chores and childcare and the help elicited from husbands/partners is results from that assertiveness or lack thereof.

Author Last Name: Mannino
Author First Name: Clelia Anna
Additional Author: Deutsch
:
Francine M.

Publisher: Springer Netherlands
Publisher Location: Rotterdam, Netherlands
Publication Date: 2007
Page Numbers: 309-324
Publication Title: Sex Roles
Volume: 56
Issue: 5-6
Source: University of Minnesota, Minneapolis

Database Name: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Career Factors Career Factors » Family Issues

Changing the organizational culture of technology education to attract minorities and women

Resource Title: Changing the organizational culture of technology education to attract minorities and women

Description/Annotation: This paper asserts that to increase the participation of minorities and women in technology education as a profession, there must be an organizational culture which is attractive to these individuals and is consistent with the factors (values and norms) which these individuals can best identify. Technology education must develop and reinforce its own organizational culture of industrial arts and must create change that ensures diversity.

Author Last Name: Liedtke

Author First Name: Jane A.

Publication Date: 1995

Page Numbers: 9-14

Publication Title: Technology Teacher

Volume: 54

Issue: 6

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Educational Factors

Characteristics of Doctoral Scientists and Engineers in the United States: 2008

Resource Title: Characteristics of Doctoral Scientists and Engineers in the United States: 2008

Description/Annotation: This 83-page report presents data from the 2008 Survey of Doctorate Recipients (SDR) on demographic and general employment characteristics of individuals who have received a research doctorate in a science, engineering, or health field from a U.S. academic institution. The data tables provide information on the number and median salaries of doctoral scientists and engineers by field of doctorate and occupation; by demographic characteristics, such as sex, race/ethnicity, citizenship, and age; and by employment-related characteristics, such as sector of employment and labor-force rates. The full report is available in PDF format.

Author Last Name: NCSES

Publisher: National Science Foundation, Division of Science Resources Statistics

Publisher Location: Arlington, VA

Publication Date: 2012, Dec

Page Numbers: 1-83

Source: NSF

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Characteristics of High School and College Women Interested in Information Technology

Resource Title: Characteristics of High School and College Women Interested in Information Technology

Description/Annotation: Contrary to prior research, findings from a questionnaire completed by 436 high school, college, and community college students did not reveal significant differences by gender in amount of computer use and the use of most types of computer applications. Men expressed significantly more interest than women in careers in technology but were significantly more likely than women to agree with stereotypically negative statements about information technology (IT) workers. Women expressing

passion for or interest in computers used computers more frequently and had more positive attitudes about IT workers than other women but were not significantly more likely to express interest in IT careers. One of the challenges facing the IT field is how to encourage young women who enjoy using computers to think about their enjoyment as the basis for career choices. Funded by NSF GSE under award #0522767 & #0120458.

Author Last Name: Creamer
Author First Name: Elizabeth G.
Additional Author: Burger
: Carol J.
Additional Author: Meszaros
: Peggy S.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 1
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Characteristics of Minority Students Who Excel on the SAT and in the Classroom. Policy Information Report

Resource Title: Characteristics of Minority Students Who Excel on the SAT and in the Classroom. Policy Information Report

Description/Annotation: In this 27-page report, the authors highlight the importance of looking at characteristics of successful SAT test takers and the similarities between these individuals. The article highlights some of the research on racial/ethnic differences in SAT performance, acknowledging that, regardless of race/ethnicity, students who participate actively in their high schools and take rigorous courses tend to achieve high scores on the SAT college entrance exam.

Author Last Name: Bridgeman
Author First Name: Brent
Additional Author: Wendler
:
Cathy
Publisher: Policy Information Center
Publisher Location: Princeton, NJ
Publication Date: 2004
Page Numbers: 27
Source: Educational Testing Service
Database Name: ERIC
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Characteristics of Recent Science and Engineering Graduates: 2003

Resource Title: Characteristics of Recent Science and Engineering Graduates: 2003

Description/Annotation: This 207-page report contains survey information for science, engineering, and health graduates who received bachelors or masters degrees during the 2000-2001 and 2001-2002 school years. The survey data are as of October 2003. Data on demographics, educational characteristics, employment status, occupational characteristics, employer characteristics, and salaries are presented. This exhaustive set of data could be very valuable to any researcher studying such issues.

Author Last Name: Tsapogas
Author First Name: John
Publisher: National Science Foundation, Division of Science Resources Statistics
Publisher Location: Arlington, VA

Publication Date: 2006, Nov
Page Numbers: 1-207
Source: NSF
Source Type: Full text, Website

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Characteristics of Recent Science and Engineering Graduates: 2008

Resource Title: Characteristics of Recent Science and Engineering Graduates: 2008

Description/Annotation: This 165-page report presents data from the 2008 National Survey of Recent College Graduates (NSRCG) on the characteristics of men and women who received bachelor's or master's degrees in science, engineering, or health fields from U.S. institutions during the two academic years 2006 and 2007. The data tables present information on the number and median salaries of recent graduates by field of major, occupation, and various demographic characteristics. The full report is available in PDF format.

Author Last Name: NCSES

Publisher: National Science Foundation, Division of Science Resources Statistics

Publisher Location: Arlington, VA

Publication Date: 2012, Aug

Page Numbers: 1-165

Source: NSF

Source Type: Full Text, Website

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Chatting on a Feminist Computer Network

Resource Title: Chatting on a Feminist Computer Network

Description/Annotation: This 15-page book chapter discusses a Canadian-US collaboration to set up a feminist computer network in order to discuss new information technology and its possibilities for planning and organizing social change. Includes a discussion of the impacts of technology on gender roles and women, both positive and negative.

Author Last Name: Smith

Author First Name: Judy

Additional Author: Balka

: Ellen

Publisher: Routledge

Publisher Location: Abingdon, UK

Publication Date: 2004

Page Numbers: 82-97

Publication Title: Technology and Women's Voices: Keeping in Touch

Source: Google Book Search

Source Type: Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Cultural Influences](#) » [Stereotype Threat](#)

Children's Gender Stereotypes About Math: The Role of Stereotype Stratification

Resource Title: Children's Gender Stereotypes About Math: The Role of Stereotype Stratification

Description/Annotation: A 20-page report on a study of children's gender stereotypes about mathematics and mathematicians. Discusses the "math pipeline", a phenomenon that results in decreasing representation of women in math at progressively higher educational levels, and possible explanations (genetic aptitude differences, social factors), followed by a discussion of the effect of stereotypes and stereotype threat on women in math. Because girls do not fit the same set of assumptions that women in mathematics do

(underperforming, lack of awareness of gender stereotypes), the author offers the theory of stereotype stratification as an alternative explanation. First, second, third, and fourth grade girls were included in two studies that showed some support for the stereotype stratification theory as an explanation of girls' outperforming boys in math.

Author Last Name: Steele
Author First Name: Jennifer
Publisher: V. H. Winston & Sons, Inc.
Publication Date: 2003
Page Numbers: 2587-2606
Publication Title: Journal of Applied Social Psychology
Volume: 33
Issue: 12
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Cultural Influences](#) » [Stereotype Threat](#)

Chinese Engineers in Canada: a 'Model Minority'? and Experiences and perceptions of the Glass Ceiling

Resource Title: Chinese Engineers in Canada: a 'Model Minority'? and Experiences and perceptions of the Glass Ceiling

Description/Annotation: This paper answers the following three research questions: a) Are the Chinese in Canada a model minority? b) Does a glass ceiling exist for Chinese engineers in Canada? 3) What are Chinese engineers' perceptions and actual experiences of the glass ceiling? The data utilized to answer these questions come from the 2001 Census of Canada and a mail survey to Chinese engineers who graduated from the University of Calgary. The findings indicate that the model minority thesis has limited applicability to the Chinese in Canada. When Chinese scientists and engineers' incomes are examined, there is a much lower return to their education and their experience when compared to Whites, which

points to their under-representation in higher paying management positions and the existence of a glass ceiling.

Author Last Name: Wong
Author First Name: Lloyd L.
Additional Author: Wong
:
Publication Date: 2006
Page Numbers: 253-273
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Salary](#) [Career](#)
[Factors](#) » [Stereotype Threat](#)

Choosing and Leaving Science in Highly Selective Institutions

Resource Title: Choosing and Leaving Science in Highly Selective Institutions
Description/Annotation: A 34-page quantitative study to look at the reasons for women students' entrance into scientific fields and attrition rates in four highly selective higher education institutions. Indicators such as gender, SAT scores, high school GPAs, initial field of interest, perceived instructional climate, and college GPAs were examined to attempt to explain gender disparity in the entrance into science and the choice to remain. This study tries to directly address and measure many of the significant themes in the underrepresentation of women in STEM, especially the "chilly climate hypothesis". Also discusses the variation in gender balance between different scientific fields and the effects of instructional quality on student retention.
Author Last Name: Strenta

Author First Name: A. Christopher
Additional Author: Elliot
: Rogers
Additional Author: Adair
: Russell
Additional Author: Matier
: Michael
Additional Author: Scott
: Jannah
Publication Date: 1994
Page Numbers: 513-547
Publication Title: Research in Higher Education
Volume: 35
Issue: 5
Database Name: SpringerLink
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Choosing Computer Science: Women at the Start of the Undergraduate Pipeline

Resource Title: Choosing Computer Science: Women at the Start of the Undergraduate Pipeline

Description/Annotation: This paper reports early results of a survey- and interview-based study focusing on the beginning of the undergraduate pipeline in computer science (CS). Employing a grounded theory-style method, authors investigate gender differences in how pre-major undergraduates are attracted to (or repelled by) the CS major. By also investigating how students conceive of CS as a discipline, culture, and career area, researchers not only ask the students the question, Why or why not computer science?, but also discover how they understand the question.

Author Last Name: Yasuhara
Author First Name: Ken
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Choosing to Compete: How Different Are Girls and Boys?

Resource Title: Choosing to Compete: How Different Are Girls and Boys?
Description/Annotation: This 14-page study from the Institute for the Study of Labor examines the role of nurture in explaining the stylized fact that women shy away from competition. The study, which also shows that girls from single-sex schools choose to enter tournaments more than girls from coed schools, suggests that a girl's environment plays an important role in explaining whether she chooses to compete. Results indicate that observed gender differences might reflect social learning rather than inherent gender traits. The full study is available in PDF format.

Author Last Name: Booth
Author First Name: Alison
Additional Author: Nolen
: Patrick
Publisher: Institute for the Study of Labor (IZA)
Publisher Location: Bonn, Deutschland
Publication Date: 2009, Feb
Publication Title: IZA Discussion Paper Series
Source: IZA
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Climate for Retention to Graduation: A Mixed Methods Investigation of Student Perceptions of Engineering Departments and Programs

Resource Title: Climate for Retention to Graduation: A Mixed Methods Investigation of Student Perceptions of Engineering Departments and Programs

Description/Annotation: This mixed methods investigation, part of a larger study examining student participation in science, technology, engineering, and mathematics (STEM) programs, reports findings on departmental climates that enhance retention to completion of engineering degrees for women and underrepresented minorities. Analyses of interviews and focus groups data showed that women and underrepresented minorities were not treated differently, nonetheless they experienced department climate differently from their majority peers. Findings suggest that sexism and racism are subtle and students experiencing them are often unable to articulate it. This study illustrates the use of a mixed methods approach in examining the complex issue of gender and race in the context of climate for retention to graduation in engineering.

Author Last Name: Wao

Author First Name: Hesborn O.

Additional Author: Lee

: Reginald S.

Additional Author: Borman

: Kathryn M.

Publication Date: 2010

Page Numbers: 293-317

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16

Issue: 4

Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Retention](#)

Climbing onto the Shoulders of Giants

Resource Title: Climbing onto the Shoulders of Giants

Description/Annotation: The "incredible shrinking pipeline" problem has become the euphemism for the dilemma of declining numbers of women seeking bachelor's degrees in a computing discipline. The problem is well recognized, and many have suggested reasons for it. Unfortunately, much of what has been written is based on anecdotal evidence or inferences made from statistical results from small samples of very specific groups in the computing disciplines. There have been few multi-disciplinary approaches to analyze the problem with even fewer attempts to create a model that might explain it. This paper is the end of a beginning. Having received a National Science Foundation grant to study gender-based differences and ethnic and cultural models in the computing disciplines, the principle investigators document the work that has led to launching a nationwide study of the problem to commence in Fall 2004. Funded by NSF GSE under award #0332780.

Author Last Name: Lopez
Author First Name: Antonio M.
Additional Author: Schulte
:
Additional Author: Lisa J.
Additional Author: Giguette
:
Marguerite S.
Publication Date: 2005
Page Numbers: 401-405
Publication Title: SIGCSE '05
Volume: 37
Issue: 1

Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Climbing the Corporate Ladder in High Heels

Resource Title: Climbing the Corporate Ladder in High Heels

Description/Annotation: This book answers the question many women have about their work lives: can they have a successful career and still have a life? The question is relevant because although nearly 50% of the workforce is female, 90% of working women with families are responsible for taking care of the children and the household. The author's approach does not advise women to act aggressive like a man, or use too-nice feminine wiles, but rather to use their natural talents and learned skills to break through the glass ceiling. Whether a soccer mom, a chef, or a CEO, women can utilize what they know to get what they want. Of interest to women striving to balance their career and family.

Author Last Name: Archambeau

Author First Name: Kathleen

Publisher: Career Press

Publisher Location: Franklin Lakes, NJ

Publication Date: 2006, May

Page Numbers: 1-223

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Professional Development](#)

Climbing the Technical Ladder: Obstacles and Solutions for Mid-Level Women in Technology

Resource Title: Climbing the Technical Ladder: Obstacles and Solutions for Mid-Level Women in Technology

Description/Annotation: An in-depth study done on the obstacles to advancement for mid-level women in high tech careers. The study was carried out by surveys and interviews with women and men employed by seven high tech companies in Silicon Valley. Although companies recognize the benefits of gender diversity in their workforce, the numbers of women in high level positions in extremely low. This study looks at attributes of mid-level technical women, attitudes toward work and family balance, and corporate culture and its effects on advancement. The authors propose solutions for companies to more successfully recruit, retain, and advance women, especially those at the mid-career level. Valuable for company policy makers and men and women in high tech careers.

Author Last Name: Simard

Author First Name: Caroline

Additional Author: Henderson

: Andrea D.

Additional Author: Gilmartin

: Shannon K.

Additional Author: Schiebinger

: Londa

Additional Author: Whitney

: Telle

Publisher: Michelle R. Clayman Institute for Gender Research, Stanford University and Anita Borg Institute for Women and Technology.

Publication Date: 2008

Page Numbers: 1-84

Source: ABI

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Closing the Gender Gap in Technical Disciplines: An Investigative Study

Resource Title:	Closing the Gender Gap in Technical Disciplines: An Investigative Study
Description/Annotation:	The goal of this study was to investigate the efficacy of curriculum and instructional techniques in a technical core course to create a more conducive learning environment for women. The technical core course introduced technology majors to mechanical systems, electronics, and fluid power principles through lectures and laboratory work. Female students already enrolled in the department and female alumnae of the program were surveyed. The students' responses to the survey showed that although the female participants in the study were pleased with the instructors, the curriculum, and the instruction they received, they had recommendations for modifying the instruction.
Author Last Name:	Gokhale
Author First Name:	Anu A.
Additional Author:	Stier
:	Ken
Publication Date:	2004
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	10
Issue:	2
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Co-operative Work, Women and the Working Environments of Technology Design

Resource Title: Co-operative Work, Women and the Working Environments of Technology Design

Description/Annotation: This paper reflects on the relations between the specific work practices that surround the use of technology in a small design company and the social practices and dominant meanings that define the environments where that technology might be designed and developed. The author explores how it might be possible to speak, within these environments, about the relations between technology design practice and the communication skills required to successfully use some recent technology.

Author Last Name: Robertson

Author First Name: Toni

Publication Date: 2000

Page Numbers: 205-219

Publication Title: Australian Feminist Studies

Volume: 15

Issue: 32

Source: Research Gate

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

COACH Career Development Workshops for Science and Engineering Faculty: Views of the Career Impact on Women Chemists and Chemical Engineers

Resource Title: COACH Career Development Workshops for Science and Engineering Faculty: Views of the Career Impact on Women Chemists and Chemical Engineers

Description/Annotation: For the field of chemistry to play a leading role in the science and technology sector of the U.S. economy it must recruit and retain the best and brightest talent from all segments of our society. Currently in the United States there is a significant disparity in the recruitment and retention of women relative to their male counterparts, particularly at advanced-degree levels. For the past

eight years the Committee on the Advancement of Women Chemists (COACH) has been offering professional development workshops on negotiation and communication skills for women faculty in the chemical sciences. The workshops are a combination of professional-skills training, experiential learning, role-playing, and group problem solving. To date, over 400 women chemistry faculty have attended these workshops held prior to national professional meetings for chemists. This article examines the participants' perceptions of the impact of the workshops on their careers. The results show that the overwhelming majority of the women report that the skills learned at the COACH workshops have enhanced their career progress in important and long-lasting ways. Funded by NSF GSE under award #0909344.

Author Last Name: Greene
Author First Name: Jessica
Additional Author: Stockard
:
Jean
Publication Date: 2010
Page Numbers: 386-391
Publication Title: Journal of Chemical Education
Volume: 87
Issue: 4
Source: ACS
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career Factors](#) » [Professional](#)
[Development](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

COACH

Resource Title: COACH

Description/Annotation: COACH is a membership organization committed to assisting women scientists and engineers in achieving success in their careers. It was formed in 1998 by a group of senior women faculty

concerned over the inequities faced by women in the chemical and other sciences.

Web site Link: [Link to Resource](#)

More: Goals of COACh are:

- working towards eliminating inequities in the system that create barriers for women
- providing programs to improve the climate in institutions and organizations
- developing workshops for women in science and engineering
- providing networking and mentoring opportunities
- work in advisory capacity to increase recruitment and retention

Resources:

- Research
- Upcoming Events
- Workshops
- Resources
- Job Postings

Site Access Details: Open membership to any interested party. Access to website and contents.

Partners and Funding: Funding from the National Science Foundation, National Institutes of Health and the Department of Energy, Basic Energy Sciences. Additional sponsors are the Camille & Henry Dreyfus Foundation and Union Carbide.

Contact Name: Priscilla Lewis

Contact E-mail: coach@uoregon.edu

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Cohort Changes in the Transition from School to Work: Evidence from Three NLS Surveys

Resource Title: Cohort Changes in the Transition from School to Work: Evidence from Three NLS Surveys

Description/Annotation: In this 23-page research report, the authors discuss a study of the school-to-work transition using the National Longitudinal Survey data, looking at trends over the latter part of the 21st century. The report also examines characteristics that affect the transition from school to work and career preparation, including race, and gender.

The study suggests improvement in the work readiness of young individuals overall, but some declines in educational attainment among Hispanic males.

Author Last Name: Bocolod
Author First Name: Marigee
Additional Author: Hotz
:
V. Joseph
Publication Date: 2006
Page Numbers: 351-373
Publication Title: Economics of Education Review
Volume: 25
Issue: 4
Source: ScienceDirect
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Collaboration as a Means to Building Capacity: Results and Future Directions of the National Girls Collaborative Project

Resource Title: Collaboration as a Means to Building Capacity: Results and Future Directions of the National Girls Collaborative Project

Description/Annotation: This paper describes the underpinnings and design of the National Girls Collaborative Project (NGCP) and posits that the structured collaboration framework this organization forments may be a necessary component for the field to move beyond its current levels of representation of women in STEM. Initial results from the projects are described and related to nationwide efforts to increase women in STEM. Funded by NSF GSE under award #0631789.

Author Last Name: Marra
Author First Name: Rose M.

Additional Author: Peterson
:
Additional Author: Britsch
:
Publication Date: 2008
Page Numbers: 119-140
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Source: NGCP
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Collaboration Between Science and Social Science: Issues, challenges, and opportunities

Resource Title: Collaboration Between Science and Social Science: Issues, challenges, and opportunities

Description/Annotation: Analyzes the issues, challenges, and opportunities of research and programmatic collaborations between science and social science.

Author Last Name: Fox

Author First Name: Mary Frank

Publisher: Elsevier Ltd.

Publication Date: 2008

Page Numbers: 17-30

Publication Title: Research in Social Problems and Public Policy

Volume: 16

Source: Emerald

Source Type: Abstract

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Collaborative Learning in Engineering Students: Gender and Achievement

Resource Title: Collaborative Learning in Engineering Students: Gender and Achievement

Description/Annotation: In this paper, a set of hypotheses were tested that predicted positive relationships between students' self-reported informal collaboration, self-efficacy for learning course material, knowledge building behaviors, and course grade. A second set of hypotheses were tested that predicted gender similarities in reported self-efficacy, and gender differences in reported collaborative learning activities.

Author Last Name: Stump

Author First Name: Glenda S.

Additional Author: Hilpert

: Jonathan C.

Additional Author: Husman

: Jenefer

Additional Author: Chung

: Wen-ting

Additional Author: Kim

: Wonsik

Publication Date: 2011, Jul

Page Numbers: 475-497

Publication Title: Journal of Engineering Education

Volume: 100

Issue: 3

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Collaborative on Academic Careers in Higher Education (COACHE)

Resource Title: Collaborative on Academic Careers in Higher Education (COACHE)

Description/Annotation: The Collaborative on Academic Careers in Higher Education (COACHE) is a consortium of over 130 colleges and universities across North America committed to making the academic workplace more attractive and equitable for early-career faculty--the cohort most critical to the long-term future of their institutions.

Web site Link: [Link to Resource](#)

More: Responding to the explosion of hiring and turnover costs and to persistent challenges in diversifying the academy, COACHE gives presidents, provosts, and deans both **peer diagnostics and concrete solutions** for informing efficient, effective investment in their faculty. Membership enables colleges and universities to focus on issues critical to faculty success and on steps academic policymakers can take to gain a competitive advantage in faculty recruitment, retention and development.

Resources: The core element of COACHE is the Tenure-Track Faculty Job Satisfaction Survey designed, tested, and validated in focus groups and a rigorous pilot study. Each section of the COACHE instrument is built to generate a report of not simply "interesting" data, but actionable diagnoses.

The COACHE model is designed to take participating institutions from data collection to policy action in less than one year.

Site Access Details: The site is publicly accessible.

Partners and Funding: COACHE began as the Study of New Scholars, a research project funded by \$750,000 from the Ford Foundation and Atlantic Philanthropies. Enrollment in COACHE is open to all four-year

colleges and universities. The three-year COACHE membership includes administration of the Tenure-Track Faculty Job Satisfaction Survey, delivery of a COACHE Institutional Report, and other special membership benefits such as invitations to conference-based events and workshops and access to latest findings.

Contact E-mail: coache@gse.harvard.edu

Last Update Date: June 6, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Comfortable Chaos: Forget "Balance" and Make Career and Family Choices That Work for You

Resource Title: Comfortable Chaos: Forget "Balance" and Make Career and Family Choices That Work for You

Description/Annotation: A book that does not have a one-size-fits-all approach to finding work-life balance, rather, an individualized approach based on how much chaos you can tolerate. A self-administered quiz determines your co-efficient for chaos and then helps you make guilt-free choices to find your own personal balance of work and personal life. For working women.

Author Last Name: Harvey

Author First Name: Carolyn S.

Additional Author: Herrild

: Beth E.

Publisher: Self-Counsel Press

Publisher Location: North Vancouver, B.C.

Publication Date: 2005, Mar

Page Numbers: 1-296

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Commitment to Graduate Studies and Careers in Science and Engineering: Examining Women's and Men's Experiences

Resource Title:	Commitment to Graduate Studies and Careers in Science and Engineering: Examining Women's and Men's Experiences
Description/Annotation:	This 18-page journal article details a comprehensive survey conducted to assess departmental, interpersonal and attitudinal variables related to Canadian student experiences in science and engineering graduate programs. The study examines the experiences of women and men graduate students and to identify relationships between contextual factors and four specific outcomes: intention to leave current program, intention to pursue a career in field of study, science/engineering self-efficacy and confidence in establishing a career in one's field. Quantitative and qualitative results show that departmental climate and advisor support predicted student intentions, confidence and self-efficacy. Gender differences in self-efficacy and confidence were also found.
Author Last Name:	Darisi
Author First Name:	Tanya
Additional Author:	Davidson
:	Valerie
Additional Author:	Korabik
:	Karen
Additional Author:	Desmarais
:	Serge
Publisher:	International Journal of Gender, Science and Technology
Publisher Location:	United Kingdom
Publication Date:	2010, Mar
Page Numbers:	48-64
Publication Title:	International Journal of Gender, Science and Technology
Volume:	2
Issue:	1
Source:	The Open University

Source Type: Full Text

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Career Factors Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Career Factors » Retention Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Committee on Equal Opportunities in Science and Engineering (CEOSE)

Resource Title: Committee on Equal Opportunities in Science and Engineering (CEOSE)

Description/Annotation: Congressionally-mandated advisory committee to the National Science Foundation concerning (1) the implementation of the provisions of the Science and Engineering Equal Opportunities Act and (2) other policies and activities of the Foundation to encourage full participation of women, minorities, and other groups currently underrepresented in scientific, engineering, and professional fields.

Web site Link: [Link to Resource](#)

Resources: Site contains:

- CEOSE members
- Biennial reports to Congress from 1996 on
- Meeting schedules, agendas and informative meeting minutes

Site Access Details: This site is publicly accessible.

Partners and Funding: CEOSE operates under the Office of Integrative Activities (OIA), supporting the NSF Director's Office through policy analysis and special projects to address Foundation priorities, and playing a leadership role-in close partnership with other NSF Directorates and Offices-to improve NSF's management practices and promote unity and alignment in support of the Foundation's mission.

Contact Name: Dr. Margaret E. M. Tolbert

Contact E-mail: mtolbert@nsf.gov

Last Update Date: June 7, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Government

Committee on the Status of Women in Computing Research (CRA-W)

Resource Title: Committee on the Status of Women in Computing Research (CRA-W)

Description/Annotation: CRA-W is an action oriented organization dedicated to increasing the number of women participating in Computer Science and Engineering (CSE) research and education at all levels. CRA-W sponsors a number of activities focused on helping undergraduates and graduates succeed in CSE fields, as well as workshops to help advance women in the computing research workforce.

Web site Link: [Link to Resource](#)

More: In addition to increasing the number of women involved, CRA-W also aims to increase the degree of success women experience and to provide a forum for addressing problems that often fall disproportionately within women's domain.

Resources: The CRA-W website offers a wealth of resources for women interested in CSE, including:

- Undergraduate resources
 - Educational events
 - Summer and year-long research projects
 - Mentoring
 - Workshops
 - [Discipline-specific Mentoring workshops](#)
- Graduate
 - Educational and community building events
 - [Distinguished Lecture Series](#)
 - Mentoring
- Academia
 - Workshops
 - Awards
 - Research Experience
 - [Collaborative Research Experience](#)
- Gov/Industry Labs
 - Activities for women researchers
 - [Advanced Career Mentoring Workshop](#)
- Communications
 - Calendar of Activities
 - [Mailling Lists](#) - (Jobhunting, mentors, pretenures, researchers)
 - Newsletters

- Publications
- CRA-W projects
- **Data Buddies Project** - (designed to inform the computing community about patterns of entry, experience, and progress through academic programs and research careers)

Site Access Details: This site is publicly accessible.

Partners and Funding: CRA-W is a committee of the Computing Research Association (CRA). CRA is funded from the NSF, Natural Science and Engineering Research Council of Canada, and corporate sponsors such as Microsoft, Google, Sun and IBM.

Contact E-mail: craw.webmaster@cra.org

Last Update Date: May 13, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Committee on Women in Science, Engineering, and Medicine (CWSEM)

Resource Title: Committee on Women in Science, Engineering, and Medicine (CWSEM)

Description/Annotation: Committee on Women in Science, Engineering, and Medicine is a standing committee of the National Research Council (NRC) focused on advocating action to increase women's participation in science, engineering, and medicine. This website offers information on the committee's research and events.

Web site Link: [Link to Resource](#)

Resources:

- Publications
- Current Projects
- Links to related organizations
- Workshop information

Site Access Details: Free access to the general public.

Partners and Funding: The Committee is a part of the National Academy of Sciences which was formed in 1863 by President Lincoln. Members are distinguished scholars in science and engineering and are elected.

Contact E-mail: cwsem@nad.edu

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Government

Common Ground: How a course collaboration between engineering and women's studies produced fine art

Resource Title: Common Ground: How a course collaboration between engineering and women's studies produced fine art

Description/Annotation: The Mass and Energy Balances course at Smith College collaborated with the Women's Studies course on Youth Culture and Gender and with the feminist art collective sub-Rosa to examine the relationships between cultures of production and the production of culture. The collaboration process is discussed, including how such projects are generated, how two distinct cultures of students can be brought to work productively together, and how to work well with off-site collaborators.

Author Last Name: Riley

Author First Name: Donna

Additional Author: Armstrong

: Elisabeth

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Curriculum Educational Factors

Commonwealth Alliance for Information Technology Education (CAITE)

Resource Title: Commonwealth Alliance for Information Technology Education (CAITE)

Description/Annotation: The Commonwealth Alliance for Information Technology Education (CAITE) is led by the University of Massachusetts Amherst to design and carry out comprehensive programs that address underrepresentation in information technology (IT) education and the workforce. CAITE focuses on women and

minorities in groups that are underrepresented in the Massachusetts innovation economy; that is, economically, academically, and socially disadvantaged residents. The project is piloting a series of outreach programs supported by educational pathways in four regions aiding students from rural, suburban, and urban areas and includes work with high school teachers, staff, and counselors. CAITE will identify best practices and disseminate, deploy, extend and institutionalize these best practices statewide and nationally. The CAITE website features a compilation of guides, workbooks, ideas, and various other ways to improve and increase the participation of women and minorities in computer science and IT.

Web site Link:

[Link to Resource](#)

More:

Community colleges are the centerpiece of CAITE because of the central role they play in reaching out to underserved populations and in serving as a gateway to careers and further higher education.

Resources:

The CAITE website offers a wealth of information for educators and students interested in the field of computing/IT:

- Latest news and events sponsored by CAITE and/or CAITE participants
- Collection of articles with subjects related to CAITE directive
- Resources For Educators
 - Professional Development
 - Video List
 - Computing Diversity Resources
 - Computing Degree Transfer Resources
- Resources For Students
 - Portal for Massachusetts students interested in IT
 - Summer Opportunities in IT for Students
- Links to IT Job Listings

Site Access Details:

This is a publicly accessible site.

Partners and Funding:

CAITE is led by the University of Massachusetts, Amherst. The Alliance is composed of 15 universities, 8 organizations, 6 NSF BPC Alliances & Demonstration Projects. CAITE is overseen by a 17-person advisory committee.

Last Update Date:

July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Communicating for Change: Persuade Colleagues to Get on Board

Resource Title:	Communicating for Change: Persuade Colleagues to Get on Board
Description/Annotation:	This 2-page guide from the National Center for Women & Information Technology (NCWIT) provides guidance on the four steps for the long-term process of effective persuasion for those wishing to promote department change. The guide also includes ideas for applying the steps to create change that promotes women's participation in computing. The guide is available in PDF format.
Author Last Name:	Barker
Author First Name:	Lecia
Additional Author:	Cphoon
:	J. McGrath
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2009, Feb
Page Numbers:	1-2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » Negotiation Skills](#) [Career Factors » Organizational Culture](#)

Communicating with Those Who Do Not See the Need for Change

Resource Title:	Communicating with Those Who Do Not See the Need for Change
Description/Annotation:	Canadian paper discussing (frustrating) efforts to establish an Equity and Diversity committee in a conservative Professional Engineers association.
Author Last Name:	Holmes

Author First Name: Ann
Additional Author: Ecsedi
: M?rta
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 9
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Legal Considerations](#)

Community College Transfer Engineering Students: Does Gender Make a Difference?

Resource Title: Community College Transfer Engineering Students: Does Gender Make a Difference?

Description/Annotation: This study looks at gender and transfer students who transferred into engineering at a large university. Is there a difference by gender in the reasons decisions are made by students to go to a two-year school after high school, to choose a major in engineering or computer science, to choose to attend graduate school, and ultimately to choose a career? This study, conducted by survey, also examines the encouragers and discouragers felt by the transfer students by gender when they first transferred. Other aspects examined relative to gender are the number of hours worked while at the community college, how many hours per week worked now, student age, and family responsibilities. The college students in this study are all in an academic scholarship program designed for transfer students. The paper reports which aspects of the transfer program the students identified as the most helpful for their academic success. In addition, this study looks at the gender differences in the students' evaluations of the academic scholarship program. Funded by NSF SSTEM under award #0324212 & #0123146, as well NSF ENG under award #0315817.

Author Last Name: Anderson-Rowland

Author First Name: Mary
Publication Date: 2008
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors Publications by Funder](#) » [NSF-DUE-SSTEM Publications by Funder](#) » [NSF-EEC-ENG Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Comparing the Learning Experiences of Male and Female Engineering Students in Internship and Co-operative Educational Opportunities

Resource Title: Comparing the Learning Experiences of Male and Female Engineering Students in Internship and Co-operative Educational Opportunities

Description/Annotation: This study considers research on learning differences between males and females and then looks at how male and female engineering students discuss their co-op and internships experiences. Males and females were found to have no difference in overall satisfaction with the cooperative experiences and level of responsibility they were granted.

Author Last Name: Anderson
Author First Name: Kevin J.B.
Additional Author: Prem
:
Kathy J.
Additional Author: Wirsbinski
:
Sara
Additional Author: Courter
:
Sandra Shaw
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Individual Beliefs and Behaviors » Cognition Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation

Comparing the Relative Contribution of Individual and Environmental Factors to the Intent to Remain in an Engineering Major, by Gender

Resource Title: Comparing the Relative Contribution of Individual and Environmental Factors to the Intent to Remain in an Engineering Major, by Gender

Description/Annotation: A series of hierarchical linear regressions were run to determine the differences by gender among undergraduates in the relative contribution of individual and environmental factors to predicting interest in remaining in an engineering major. Individual and environmental factors played a significant role for both men and women in predicting the dependent variable, but individual variables, particularly motivation, explained more of the variance.

Author Last Name: Creamer

Author First Name: Elizabeth

Additional Author: Meszaros

: Peggy

Additional Author: Amelink

: Catherine

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Comparing U.S. K-12 Students' Math and Science Performance Internationally (Talking Points)

Resource Title:	Comparing U.S. K-12 Students' Math and Science Performance Internationally (Talking Points)
Description/Annotation:	In the popular press and in public debate, one often hears that U.S. students are performing poorly in math and science in comparison to other countries. What is the basis for these claims? What are students' actual scores and rankings? How should we interpret and use these scores? A better understanding of the evidence is important for making effective policy decisions that affect computer science and other STEM fields.
Author Last Name:	Ashcraft
Author First Name:	Catherine
Publisher:	National Center for Women & Information Technology
Publication Date:	2009
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Comparison of Mechanical Aptitude, Prior Experiences, and Engineering Attitude for Male and Female Mechanical Engineering Students

Resource Title:	Comparison of Mechanical Aptitude, Prior Experiences, and Engineering Attitude for Male and Female Mechanical Engineering Students
Description/Annotation:	This study investigated ways to measure mechanical aptitude, including: a paper and pencil mechanical aptitude test (MAT), rating of expertise based observation of students doing hands-on tasks, and performance on physics computer games. Male

students scored higher than female students on the MAT and physics games at statistically significant levels.

Author Last Name: Miller
Author First Name: Michele
Additional Author: Pereira
:
Additional Author: Mitchell
:
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Comparisons of More Applied Information Technology and Computer Science Undergraduates

Resource Title: Comparisons of More Applied Information Technology and Computer Science Undergraduates

Description/Annotation: This paper presents a comparison study between undergraduates in the areas of applied information technology and those in computer science. A large, nationwide survey involving undergraduates from 42 institutions of higher education was conducted in Fall 2004. Basic demographical data and responses to survey questions dealing with behaviors, beliefs, and perceptions were collected. Underpinning the investigation was the question of the influence of gender, ethnicity, and university type (Historically Black Colleges and Universities or Predominantly White Institutions). Responses to survey items were statistically analyzed and results are presented in this paper. A great deal of similarity was found between the two groups of undergraduates. Funded by NSF GSE under award #

Author Last Name: Lopez

Author First Name: Antonio M.
Publication Date: 2007
Page Numbers: 1-8
Publication Title: Proceedings of the Information Systems Education Conference
Volume: 24
Source: ISECON
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Competence in Engineering: A Tale of Two Women

Resource Title: Competence in Engineering: A Tale of Two Women

Description/Annotation: This research examines persistence decisions among engineering undergraduates as a choice process which extends across all four years. Framed in motivational theory, this research focuses on competence beliefs, specifically students' beliefs about their ability to become practicing engineers and how this shapes their choice to pursue engineering degrees. Results showed that some women students with very good grades (GPA higher than 3.9), can still experience a lack of confidence with regard to practicing engineering. Moreover, these same women students redefine what it means to successful in engineering as part of their choice process to persist in earning an engineering degree. Implications are discussed in terms of future research and the classroom context. Funded by NSF REAL under award #0227558.

Author Last Name: Matusovich

Author First Name: Holly

Additional Author: Streveler

: Ruth

Additional Author: Miller

: Ron

Additional Author: Olds

: Barbara
Publication Date: 2009
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Brief

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-DRL-REAL](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Competing Devotions: Career and Family among Women Executives

Resource Title:	Competing Devotions: Career and Family among Women Executives
Description/Annotation:	This book is more than just a comparison between work-committed and family-committed women. It describes the social schemas of work devotion and family devotion and how they affect women, families, and the workplace. The author explains why developing policies are not enough to change behaviors and attitudes with deep moral and cultural foundations. For women and men in the workplace and those studying sociology and gender inequalities.
Author Last Name:	Blair-Loy
Author First Name:	Mary
Publisher:	Harvard University Press
Publisher Location:	Cambridge, MA
Publication Date:	2003, May
Page Numbers:	1-288
Source:	Amazon
Source Type:	Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Compiled Perspectives on STEM Education

Resource Title:	Compiled Perspectives on STEM Education
Description/Annotation:	Youthful and insightful perspectives of author, UChicago '12, MBHS Magnet '08, on successful practices in encouraging high school students in STEM. Preferences and recommendations include funding teacher participation in extracurricular activities, efforts that nurture collaboration over competition, and funding of magnet and summer programs that encourage in depth learning amongst like-minded gifted peers. Paper presented at NSB "Expert Panel Discussion on Preparing the Next Generation of STEM Innovators" held Aug 24-25, 2009.

Author Last Name: Wasserman
Author First Name: Louis
Publication Date: 2009
Source: NSB
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Complementary Pair and Group Mentoring Programs for Undergraduate Women in Engineering

Resource Title: Complementary Pair and Group Mentoring Programs for Undergraduate Women in Engineering

Description/Annotation: Purdue University Women in Engineering provides an overview of the new Mentees & Mentors (M&M) Peer Program (group mentoring), discussing program goals, organization, assessment, and effective strategies for peer mentoring of undergraduate women in engineering. Appropriate comparisons will be made to the continuing M&M Pair Program (one-on-one mentoring) as we show how the Pair and Peer programs work together to meet a broad range of participant mentoring and scheduling needs.

Author Last Name: Groh
Author First Name: Jennifer L.
Additional Author: Holloway
: Beth M.
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Complicating Difference: Exploring and Exploding Three Myths of Gender and Race in Engineering Education

Resource Title: Complicating Difference: Exploring and Exploding Three Myths of Gender and Race in Engineering Education

Description/Annotation: This paper examines three myths of gender and race that operate in engineering education, and uses a review of the literature as well as findings from the authors' research to address them.

Author Last Name: Riley

Author First Name: Donna M.

Additional Author: Pawley

:

Alice L.

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Complicating Research on Gender & Ethnicity: The Perceptions of Equality Score (PES)

Resource Title: Complicating Research on Gender & Ethnicity: The Perceptions of Equality Score (PES)

Description/Annotation: The Perceptions of Equality Score (PES) captures how individuals' perceptions of equal educational and employment opportunities shape their S&E educational and career choices. It measures the difference between undergraduate students' perceptions of ideal and actual equality. Results suggest a critical gap in perceptions of equal opportunities.

Author Last Name: Wyer

Author First Name: Mary
Additional Author: Schneider
: Jennifer
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and
Behaviors Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM
Career Interest/Awareness

Compositional Effects on the Persistence of Women Engineering and Computer Science Undergraduates

Resource Title: Compositional Effects on the Persistence of Women Engineering and Computer Science Undergraduates

Description/Annotation: This 13-page paper from the 2012 WEPAN National Conference analyzes a study at Michigan Technological University of undergraduate engineering and computer science students to understand the process and contributing factors involved in making the decision to persist in their major. The conference paper discusses the results of the survey and ties the findings to other research. The full paper is available in PDF format.

Author Last Name: Bunker
Author First Name: Kaitlyn J.
Additional Author: Rebb
: Raven R.
Additional Author: Brown
: Lauren E.
Additional Author: Hein
: Gretchen L.
Additional Author: Onder

: Nilufer
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-13
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Computer Hardware Diagnosis and Repair for Women and Girls

Resource Title: Computer Hardware Diagnosis and Repair for Women and Girls
Description/Annotation: In 1997, "WISE-Cache or Changing Attitudes in a Computer Hardware Environment" was created by two Penn State faculty, Drs. Judi Wakhungu and Richard Devon. The project was devised to help stem the serious declines in the number of women majoring in computer science and engineering as noted above.
Author Last Name: Acar
Author First Name: Nuket
Additional Author: Rung
: Catherine L.
Additional Author: Wakhungu
: Judi W.
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 6
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Computer Science Online

Resource Title: Computer Science Online

Description/Annotation:

Web site Link: [Link to Resource](#)

More: Exploratory web portal for students considering careers in Computer Science, Cybersecurity, Computer Forensics, Software Engineering and related fields. Site goes beyond the norm in characterizing specific, current professional roles, including salary information and educational preparation.

Resources:

- Resources for Associates, Bachelors, Masters and Doctorate programs including scholarship and internship opportunities.
- Specific resource for women and minorities in Computer Science and preparing for Computer Science in High School.
- Degree program search tool

Site Access Details: This site is publicly accessible.

Partners and Funding: Self-funded by founders.

Contact Name: Dan Schuessler

Last Update Date: Apr 29, 2014

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Computer Science Teachers Association (CSTA)

Resource Title: Computer Science Teachers Association (CSTA)

Description/Annotation: The Computer Science Teachers Association is a membership organization that supports and promotes the teaching of computer science and other computing disciplines. CSTA provides opportunities for K-12 teachers and students to better understand the computing disciplines and to more successfully prepare themselves to teach and learn.

Web site Link: [Link to Resource](#)

More: CSTA speaks directly and passionately for high school computer science at the national level.

Resources: To promote the teaching of computer science, the CSTA website contains a wealth of information, including:

- Advocacy and Outreach
- Communications
- Professional Development
- Curriculum
- Research
- Resources
 - Posters
 - Camps
 - Brochures
 - K-12 virtual binders
 - Newsletters
- Teacher certification

Site Access Details: This is a publicly accessible site.

Partners and Funding: CSTA is a non-profit organization and is part of the Association for Computing Machinery (ACM). CSTA is funded by the National Science Foundation (NSF) and is overseen by a Board of Directors and an Advisory Council.

Contact E-mail: cstahelp@csta.acm.org

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Faculty Student Interaction Educational Factors » Retention Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Computer Science-in-a-Box: Unplug Your Curriculum

Resource Title: Computer Science-in-a-Box: Unplug Your Curriculum

Description/Annotation: This 56-page teaching guide from the National Center for Women & Information Technology (NCWIT) and the authors of "Computer Science Unplugged" introduces the fundamental building blocks of computer science without using computers. The guide is aimed for use with students ages 9 to 14 to teach lessons about how computers work, while addressing critical mathematics and science concepts such as number systems, algorithms, and manipulating variables and logic. The full guide is available in PDF format.

Author Last Name: NCWIT
Additional Author: Bell
:
Additional Author: Witten
:
Additional Author: Ian H.
Additional Author: Fellows
:
Additional Author: Mike
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2008, May
Page Numbers: 1-56
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) »
[Curriculum Educational Factors](#)

Computer Use at Home and at School: Does it Relate to Academic Performance?

Resource Title: Computer Use at Home and at School: Does it Relate to Academic Performance?

Description/Annotation: Analyzing data from the National Education Longitudinal Study of 1988 to 1992, this report examines how computer use produces generic benefit to all children and differential benefits to minority and poor children. Specifically, the authors examined computer use at home vis-a-vis computer use at school in relation to the academic performance of disadvantaged children and their peers.

Author Last Name: Huang
Author First Name: Gary G.
Additional Author: Du
:
Additional Author: Jianxia
Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering
Source: Research Gate
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Computing Education & Future Jobs: National, State & Congressional District Data

Resource Title: Computing Education & Future Jobs: National, State & Congressional District Data

Description/Annotation: This interactive web page from the National Center for Women & Information Technology (NCWIT) includes data regarding projected job openings by computing degree, disaggregated by state and congressional district. Data also includes US national computing data such as average annual jobs, AP test-takers, and degrees earned. The web page provides a link to a 23-page executive report which gives an overview of the data.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2011, Mar

Source: NCWIT

Source Type: Web page

Resource Type Categories: [Database/Tool](#) » [Database](#) [Topical](#) Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Computing for a Purpose: Gender and Attachment to Computer Science

Resource Title: Computing for a Purpose: Gender and Attachment to Computer Science

Description/Annotation: "Work in progress" paper discusses the difference between males and females as it relates to their attraction to, engagement in, and experience with computers.

Author Last Name: Margolis

Author First Name: Jane

Additional Author: Fisher

: Allan

Additional Author: Miller

: Faye

Source: CMU

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Computing in the Core (CinC)

Resource Title: Computing in the Core (CinC)

Description/Annotation: Computing in the Core is a non-partisan advocacy coalition of associations, corporations, scientific societies, and other non-profits seeking to elevate the national profile of computer science education in K-12 within the US. CinC works toward ensuring that computer science is one of the core academic subjects in K-12 education.

Web site Link: [Link to Resource](#)

More: CinC encourages awareness building activities, policy changes, and research at national, state, and local levels to build a strong foundation for the future of computer science instruction. CinC engages federal and state policy makers, educators, the public, and the media to meet these goals.

Resources: The CinC website offers a wealth of resources regarding K-12 computer science advocacy, including:

- [Issues and Solutions](#)
- [Computer Science Education Facts & Resources](#)

- CinC Newsroom
- CS Impacts
- CSEdWeek

Site Access Details: This is a publicly accessible site.

Partners and Funding: CinC is a non-partisan advocacy coalition of associations, corporations, scientific societies, and other non-profits. CinC is overseen by an Executive Committee and Board of Directors.

Last Update Date: July 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Computing Self-Efficacy Among Women in India

Resource Title: Computing Self-Efficacy Among Women in India

Description/Annotation: This paper presents findings regarding self-efficacy from in-depth interviews with 60 female undergraduate students majoring in computer science (CS) in 2007-2008. It shows that CS is viewed as a woman-friendly field, as it offers lucrative jobs, professional careers, safe working environments, flexible working hours, and independence.

Author Last Name: Varma

Author First Name: Roli

Publication Date: 2010

Page Numbers: 257-274

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16

Issue: 3

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Computing-related Self-efficacy: The Roles of Gender, Academic Performance, and Computational Capabilities

Resource Title:	Computing-related Self-efficacy: The Roles of Gender, Academic Performance, and Computational Capabilities
Description/Annotation:	This study is part of a larger project, supported by a National Science Foundation CISE Pathways to Revitalized Undergraduate Computing Education (CPATH) grant, designed to prepare students for pervasive, advanced computing in the workplace. These data included participants (N = 389) enrolled in undergraduate computer science or engineering courses in several engineering programs in 2009 and 2010. Participants completed measures of engineering/computer science self-efficacy, computer self-efficacy and self-ratings of six computational capabilities which had been indicated by industry as important for new hires. The study results provide support for the relationship among computing-related self-efficacy, gender, GPA, and specific computational capabilities. Given the importance of self-efficacy in learning, these findings have implications for computer science and engineering education.
Author Last Name:	Ho
Author First Name:	Chia-Lin
Additional Author:	Raubenheimer
:	Dianne
Publication Date:	2011
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Confronting the Unique Challenges Faced by New Female Faculty

Resource Title: Confronting the Unique Challenges Faced by New Female Faculty

Description/Annotation: This paper outlines challenges encountered by first year female faculty members joining an all male faculty group. This paper explores ways to confront these challenges, such as building a strong support system and faculty mentorship programs within the university.

Author Last Name: Howe

Author First Name: Christina

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) Topical Categories: [Career Factors](#) [Career Factors » Mentoring](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

Confronting the “New” American Dilemma: Underrepresented Minorities in Engineering: A Data- Based Look at Diversity

Resource Title: Confronting the “New” American Dilemma: Underrepresented Minorities in Engineering: A Data-Based Look at Diversity

Description/Annotation: This 109-page report provides excellent data on the participation of underrepresented minorities in engineering. The authors are encouraged by the progress that has been made in the past fifty years, but emphasize that there is still a very long way to go. Specifically, they recommend improving the diversity of engineering faculty, which are 92% white and Asian/Pacific Islander, to provide role-models to underrepresented minorities.

Author Last Name: Freehill

Author First Name: Lisa

Additional Author: Di Fabio

: Nicole

Additional Author: Hill

: Susan
Publisher: National Action Council for Minorities in Engineering, Inc. (NACME)
Publisher Location: White Plains, NY
Publication Date: 2008, May
Page Numbers: 1-109
Source: NACME
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Congruence Between Elements of the Collegiate Educational Experience and ABET Accreditation Standards

Resource Title: Congruence Between Elements of the Collegiate Educational Experience and ABET Accreditation Standards

Description/Annotation: This mixed methods study identifies elements of the collegiate educational experience that student's perceive promote an interest in engineering and evaluates the extent that the values and skills identified by students at Midwestern University fit contemporary views of engineering reflected in the ABET accreditation standards.

Author Last Name: Burrows
Author First Name: Timothy
Additional Author: Creamer
: Elizabeth
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference).
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Connections that Count: The Informal Networks of Women of Color in the United States

Resource Title:	Connections that Count: The Informal Networks of Women of Color in the United States
Description/Annotation:	Part 2 of a series on barriers to advancement for women. This report studies methods of networking in an effort to explain why there is a lack of success by women to access networks of influential colleagues who could help them advance. Women are at a disadvantage in this area, and women of color are at a double disadvantage. Hispanic, Asian, and African-American women in 30 Fortune 1000 companies were included in a variety of research methods to discover which methods, if any, are successful in positive networking. The networking strategies of "blending in" or "sticking together" were examined. Recommendations are given for business leaders and management in the workplace.
Author Last Name:	Catalyst
Publisher:	Catalyst
Publisher Location:	New York, NY
Publication Date:	2006, May
Page Numbers:	1-40
Source:	Catalyst
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

CONNECTIONS: A Program for Women Studying Science, Technology, Engineering, and Mathematics at Northeastern University

Resource Title: CONNECTIONS: A Program for Women Studying Science, Technology, Engineering, and Mathematics at Northeastern University

Description/Annotation: Northeastern University program director's account of barriers she faced in getting female STEM freshman students to participate in program designed to support them. Program founded on research describing what benefits retention of female STEM students, but if students don't see the value, what is a program director to do?

Author Last Name: Hart

Author First Name: Jo-Anne

Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)

Publication Date: 2000

Page Numbers: 4

Source: WEPAN

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#)[Educational Factors](#) [Educational Factors](#) »
[Retention](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Connections: New Ways of Working in the Networked Organization

Resource Title: Connections: New Ways of Working in the Networked Organization

Description/Annotation: A 228-page book that discusses new communication technology and its effects on the social, organizational, and work worlds. Both benefits and cautionary notes of the future of information technology are discussed.

Author Last Name: Sproull

Author First Name: Lee

Additional Author: Kiesler

: Sara

Publisher: MIT Press

Publisher Location: Cambridge, MA

Publication Date: 1992
Page Numbers: 228
Source: Google
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Conscious Efforts to End Unconscious Bias: Why Women Leave Academic Research

Resource Title: Conscious Efforts to End Unconscious Bias: Why Women Leave Academic Research

Description/Annotation: This article reviews the literature regarding how unconscious bias or gender schemas contribute to why the number of women in higher education as students and faculty has steadily increased only in certain disciplines and in the lower faculty ranks. Possible solutions are presented that can help overcome the bias experienced and perceived by female faculty in institutions of higher education in the United States. The full article is available in PDF format.

Author Last Name: Easterly
Author First Name: Debra M.
Additional Author: Ricard
: Cynthia S.

Publisher: Society of Research Administration International
Publisher Location: Falls Church, VA
Publication Date: 2011
Page Numbers: 61-73
Publication Title: Journal of Research Administration
Volume: 42
Issue: 1
Source: ERIC

Source Type: Full Text PDF

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Retention](#)

Considering Context: A Study of First-Year Engineering Students

Resource Title: Considering Context: A Study of First-Year Engineering Students

Description/Annotation: The gender differences in the present study suggest that first-year women engineering undergraduates are more ready than men to do engineering with a view towards the broader context, yet the literature shows that they are less likely to be recruited and retained.

Author Last Name: Kilgore

Author First Name: Deborah

Additional Author: Atman

: Cynthia

Additional Author: Yasuhara

: Ken

Additional Author: Barker

: Theresa

Additional Author: Morozov

: Andrew

Publisher: American Society for Engineering Education

Publisher Location: Washington, D.C.

Publication Date: 2007

Page Numbers: 321-334

Publication Title: Journal of Engineering Education

Volume: 96

Issue: 4

Source: Wiley

Source Type: Abstract

Topical Categories: [Cultural Influences Educational Factors Cultural Influences » Gender Diversity Educational Factors » Retention](#)

Controlling the When and the How

Resource Title: Controlling the When and the How

Description/Annotation: A short article to help reduce stress and time management in your life. The author points out it is difficult to control the "whats" on your to do list, but you can control and "whens" and "hows" and she gives advice on how to do this. Useful information for working women.

Author Last Name: Herman

Author First Name: Jane

Publisher: WITI

Publisher Location: Sherman Oaks, CA

Page Numbers: 1-3

Source: WITI

Source Type: Full text

Resource Type Categories: [Articles/Reports » Web Resources](#) Topical Categories: [Career Factors Career Factors » Professional Development](#)

Cool Girls Science & Art Club

Resource Title: Cool Girls Science & Art Club

Description/Annotation: Cool Girls Science & Art Club is a nonprofit organization for girls in first through fifth grades that was founded in 2008 at a Boulder, CO, elementary school. The mission of Cool Girls is to engage young girls in Science, Technology, Engineering, Arts and Mathematics (STEAM) so they have the desire, confidence and skills to sustain their contributions to the community throughout their personal, academic and professional journeys. Cool Girls' activities include meeting with women scientists and artists;

participating in experiments; visiting museums and science centers; and hearing guest speakers who make their work come alive.

Web site Link: [Link to Resource](#)

More: Currently Cool Girls has three after-school groups, one for grades 3-5 and two for grades 1-2. Cool Girls also sponsors a weekly science presentation in a first-grade and a fourth-grade class at Crest View Elementary School in Boulder, CO.

Resources: The Cool Girls website contains information about the organization and volunteer opportunities, including:

- Events & Trips Calendar
- Information on Starting a Club
- Newsletter Archive
- Cool Girls Blog
- Donation Page

Site Access Details: This is a publicly accessible site.

Partners and Funding: Cool Girls is a nonprofit organization run by a volunteer Board of Directors, advisors, and consultants.

Contact Name: Mary Golden

Contact E-mail: mary@coolgirls-scienceart.com

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Cooperative Learning

Resource Title: Cooperative Learning

Description/Annotation: Cooperative learning has received considerable attention as a strategy for students who are a minority in an educational setting. Always a component of an engineer's education, cooperative work has gained popularity as an alternative to the lecture-based classroom. Results have been positive for both genders in terms of achievement, retention, and attitudes towards learning.

Author Last Name: AWE

Publisher: SWE-AWE

Publication Date: 2005

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#)

Council on Undergraduate Research (CUR)

Resource Title: Council on Undergraduate Research (CUR)

Description/Annotation: The Council on Undergraduate Research (CUR) and its affiliated colleges, universities, and individuals share a focus on providing undergraduate research opportunities for faculty and students at all institutions serving undergraduate students.

Web site Link: [Link to Resource](#)

More: NSF program (2011+) to expand its annual, national-level Institutionalizing Undergraduate Research workshop for state colleges and universities and signed a public/private consortia.

Resources: Programs includes:

- Partnership with the Virginia Space Grant Consortium in the development and administration of NASA's Undergraduate Student Research Program (USRP).
- Consulting/mentoring service
- Speakers bureau
- Fellows awards
- Annual "Undergraduate Research Posters on the Hill"
- Institutional Liaison Program - personal link between CUR and college and university campuses nationwide
- CUR Institute - two- to three-day meetings on a college campus at which a small group of people (approximately 45-65 individuals) meet to discuss an issue related to undergraduate research and faculty.

Publications includes:

- publications for sale
- links to undergraduate journals

- access to CUR quarterly
- links to undergraduate research highlights

Site Access Details: The site is members-based but does offers publications and programs/projects for web visitors.

Partners and Funding: The Council on Undergraduate Research, founded in 1978, is a not-for-profit educational organization of individual and institutional members representing over 900 colleges and universities.

Contact E-mail: cur@cur.org

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Courtesy and Idleness: Gender Differences in Team Work and Team Competition

Resource Title: Courtesy and Idleness: Gender Differences in Team Work and Team Competition

Description/Annotation: Does gender play a role in the context of team work? Results based on a real-effort experiment suggest that performance depends on the composition of the team. Female and male performance differ most in mixed teams with revenue sharing between the team members, as men put in significantly more effort than women. The data also indicate that women perform best when competing in pure female teams against male teams whereas men perform best when women are present or in a competitive environment.

Author Last Name: Radosveta

Author First Name: Ivanova-Stenzel

Additional Author: K?bler

: Dorothea

Publisher: Governance and the Efficiency of Economic Systems

Publisher Location: Mannheim, DE

Publication Date: 2005, Sept

Page Numbers: 24

Source: RePEc

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Crafting a Future in Science: Tracing Middle School Girls' Identity Work Over Time and Space

Resource Title: Crafting a Future in Science: Tracing Middle School Girls' Identity Work Over Time and Space

Description/Annotation: The underrepresentation of girls from nondominant backgrounds in the sciences and engineering continues despite recent gains in achievement. This longitudinal ethnographic study traces the identity work that girls from nondominant backgrounds do as they engage in science-related activities across school, club, and home during the middle school years. Building a conceptual argument for identity trajectories, the authors discuss the ongoing, cumulative, and contentious nature of identity work and the mechanisms that foster critical shifts in trajectories. The authors argue that the girls view possible future selves in science when their identity work is recognized, supported, and leveraged toward expanded opportunities for engagement in science. This process yields layered meanings of (possible) selves and of science and reconfigures meaningful participation in science. Funded by NSF GSE under award #0936692.

Author Last Name: Barton

Author First Name: Angela Calabrese

Additional Author: Kang

: Hosun

Additional Author: Tan

: Edna

Additional Author: O'Neill

: Tara B.

Additional Author: Bautista-Guerra

: Juanita

Publication Date: 2013
Page Numbers: 37-75
Publication Title: American Educational Research Journal
Volume: 50
Source: SAGE Journals
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Creating a Climate That Fosters Institutional Change

Resource Title: Creating a Climate That Fosters Institutional Change
Description/Annotation: CASEE effort focusing on ASME, IEEE, and Project Lead the Way (PLTW) to incorporate gender research and principles of gender equity into their member programs.
Author Last Name: Didion
Author First Name: Catherine
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 6
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Creating a Comprehensive Women in Engineering Organization Using a Managed Resource Strategy

Resource Title: Creating a Comprehensive Women in Engineering Organization Using a Managed Resource Strategy

Description/Annotation: This paper describes a group consisting of engineering college professors, administrators, and students who together create a dynamic organization aimed at increasing the representation of women within the engineering workforce. Although women serve as the target audience, the group of “committed citizens” consists of women and men with similar intrinsic motivators. This paper describes a strategy that allows for deliberate organizational growth under limited resource conditions in the context of women in engineering.

Author Last Name: Bailey

Author First Name: Margaret

Additional Author: DeBartolo

: Elizabeth

Additional Author: Mozrall

: Jacqueline

Additional Author: Olney

: Julie

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Creating a Culture for Scholarly and Systematic Innovation in Engineering Education (CCSSIEE)

Resource Title: Creating a Culture for Scholarly and Systematic Innovation in Engineering Education (CCSSIEE)

Description/Annotation: Phase 1 report (33 pages) from ASEE producing recommendations to advance engineering education innovation. Phase 2 report due June 2010. Recommendations include specific

actions for academic leadership, ASEE, NAE, ABET, Professional Engineering Societies, Industry and Funding Agencies to elevate the visibility, funding and integration of engineering education research into engineering practice.

Author Last Name: Leah H.
Author First Name: Jamieson
Additional Author: Jack R.
:
Lohmann
Publisher: American Society for Engineering Education
Publisher Location: Washington, D.C.
Publication Date: 2009
Page Numbers: 33
Source: ASEE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Creating a Culture for Systemic and Scholarly Innovation in Engineering Education (CCSSIEE): Highlights of Major, Multi-year ASEE Initiative

Resource Title: Creating a Culture for Systemic and Scholarly Innovation in Engineering Education (CCSSIEE): Highlights of Major, Multi-year ASEE Initiative

Description/Annotation: Presentation from WEPAN-hosted webinar to discuss ASEE CCSSIEE report within the women in STEM community to propel broader dissemination and discussion and invite feedback to ASEE.

Author Last Name: Matt
Author First Name: C. Diane
Additional Author: Watford
:
Bev

Additional Author: Adams
:
Stephanie
Additional Author: Carpenter
:
Jenna
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2010, Jun
Page Numbers: 28
Source: WEPAN

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Cultural Influences Educational Factors Cultural Influences » Gendered Occupations & Study Choices Educational Factors » Retention Career Factors » Retention

Creating a Culture of Success for Women in STEM - The Advancing Faculty Program at Louisiana Tech University

Resource Title: Creating a Culture of Success for Women in STEM - The Advancing Faculty Program at Louisiana Tech University

Description/Annotation: This paper discusses the ADVANCEing Faculty Program in the College of Engineering and Science at Louisiana Tech University, a four-year NSF ADVANCE PAID project that utilizes a college-wide, systematic, sustainable approach for advancing women faculty in STEM. The Program aims to educate all faculty and specifically enable women faculty to participate in a supportive and nurturing work environment, thus enhancing job satisfaction, research productivity, and retention.

Author Last Name: Carpenter
Author First Name: Jenna P.
Additional Author: O'Neal
:
D. Patrick
Additional Author: Bakken
:
Lori L.
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

Creating a Family Friendly Department: Chairs and Deans Toolkit

Resource Title: Creating a Family Friendly Department: Chairs and Deans Toolkit

Description/Annotation: This toolkit provides a wealth of essential practical information for department chairs and deans. Department chairs and deans have a central responsibility in understanding the importance of a family friendly department, and in implementing policies, sharing resources, and reinforcing cultural practices to assist all faculty.

Author Last Name: Frasch

Author First Name: Karie

Additional Author: Mason

: Mary Ann

Additional Author: Stacy

: Angy

Additional Author: Goulde

: Marc

Additional Author: Hoffman

: Carol

Publisher: UC Berkeley

Publisher Location: Berkeley, CA

Publication Date: 2007, Jul

Page Numbers: 1-23

Source: UC Berkeley

Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors » Academic & Social Climate Career Factors Educational Factors Career Factors » Organizational Culture Career Factors » Tenure Policies & Practices

Creating a knowledge-based economy in the United Arab Emirates: realising the unfulfilled potential of women in the science, technology and engineering fields

Resource Title: Creating a knowledge-based economy in the United Arab Emirates: realising the unfulfilled potential of women in the science, technology and engineering fields

Description/Annotation: This 12-page article from the European Journal of Engineering Education examines the factors that influence women's decisions regarding their degree program in the United Arab Emirates and their attitudes towards science, technology and engineering (STE). The findings highlight the importance of adapting mainstream policies to the local context and the need to better understand the effect of culture and society on the individual and the economy. The full article is available in PDF format.

Author Last Name: Aswad

Author First Name: Noor Ghazal

Additional Author: Vidican

: Georgeta

Additional Author: Samulewicz

: Diana

Publisher: Taylor & Francis

Publication Date: 2011

Page Numbers: 559-570

Publication Title: European Journal of Engineering Education

Volume: 36

Issue: 6

Source: Taylor and Francis

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Creating a pedagogical model that uses student gender and self reports of motivation and mood to adapt ITS instruction

Resource Title: Creating a pedagogical model that uses student gender and self reports of motivation and mood to adapt ITS instruction

Description/Annotation: Our project focuses on the design, implementation and evaluation of a ITS pedagogical model that considers student motivation, mood and cognitive processes in making instructional decisions in the domain of secondary school mathematics. Students complete integrated self report assessments of motivation and mood. Cognitive skills such as math fact knowledge, spatial cognition, and prior math achievement are also assessed. The pedagogical model adapts instruction (problem selection, problem difficulty, topic area, choice of activity, choice of help type, and availability of help) following a model of human tutoring expertise that balances motivational and cognitive goals. Funded by NSF GSE under award #0429125.

Author Last Name: Beal

Author First Name: Carol R.

Additional Author: Lee

: Hyokyeong

Publication Date: 2005

Publication Title: Proceedings of the Workshop on Motivation and Affect

Source: University of Sussex

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-](#)

Creating hybrid spaces for engaging school science among urban middle school girls

Resource Title:	Creating hybrid spaces for engaging school science among urban middle school girls
Description/Annotation:	The middle grades are a crucial time for girls in making decisions about how or if they want to follow science trajectories. In this article, the authors report on how urban middle school girls enact meaningful strategies of engagement in science class in their efforts to merge their social worlds with the worlds of school science and on the unsanctioned resources and identities they take up to do so. The authors argue that such merging science practices are generative both in terms of how they develop over time and in how they impact the science learning community of practice. They discuss the implications these findings have for current policy and practice surrounding gender equity in science education. Funded by NSF GSE under award #0652559.
Author Last Name:	Barton
Author First Name:	Angela Calabrese
Additional Author:	Tan
:	Edna
Additional Author:	Rivet
:	Ann
Publication Date:	2008
Page Numbers:	68-103
Publication Title:	American Education Research Journal
Volume:	45
Source:	SAGE Journals
Source Type:	Abstract, Available for sale

Creation of a Women's Machining Course at Rowan University

Resource Title:	Creation of a Women's Machining Course at Rowan University
Description/Annotation:	This paper discusses a Women's Machining Course at Rowan University to help combat the artificial gender divide in mechanical engineering programs. The paper includes an assessment and lessons learned from the course.
Author Last Name:	Constans
Author First Name:	Eric
Additional Author:	Head
:	Linda
Additional Author:	Hollar
:	Kathryn
Additional Author:	Kadowec
:	Jennifer
Publication Date:	2002
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Creative, Contextual, and Engaged: Are Women the Engineers of 2020?

Resource Title:	Creative, Contextual, and Engaged: Are Women the Engineers of 2020?
Description/Annotation:	Women engineering undergraduates in this study defined engineering, approached engineering problems, and engaged in their overall engineering education more broadly than male students. The women considered broader contextual factors in

addition to (rather than instead of) factors oriented toward the more specific details of the artifact being designed (in this case, a retaining wall given as a short written design task in their first year).

Author Last Name: Kilgore
Author First Name: Deborah
Additional Author: Chachra
: Debbie
Additional Author: Loshbaugh
: Heidi
Additional Author: MCain
: Janice
Additional Author: Jones (et al.)
: Marcus
Publisher: American Society for Engineering Education
Publisher Location: Washington, D.C.
Publication Date: 2007
Publication Title: Proceedings of the American Society for Engineering Education Annual Conference
Source: International Network for Engineering Studies
Source Type: Full Text PDF

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic](#)
[Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Cross-National Patterns of Gender Differences in Mathematics: A Meta-Analysis

Resource Title: Cross-National Patterns of Gender Differences in Mathematics: A Meta-Analysis
Description/Annotation: This report details a meta-analysis of 2 major international data sets, the 2003 Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student

Assessment (PISA), representing 493,495 students 14 –16 years of age. The meta-analysis aims to estimate the magnitude of gender differences in mathematics achievement, attitudes, and affect across 69 nations throughout the world. Results point to specific domains of gender equity responsible for gender gaps in math. Gender equity in school enrollment, women’s share of research jobs, and women’s parliamentary representation were the most powerful predictors of cross-national variability in gender gaps in math. This meta-analysis provides further evidence that, on average, males and females differ very little in mathematics achievement, despite more positive math attitudes and affect among males.

Author Last Name: Else-Quest
Author First Name: Nicole M.
Additional Author: Hyde
: Janet Shibley
Additional Author: Linn
: Marcia C.
Publisher: American Psychological Association
Publisher Location: Washington, DC
Publication Date: 2010, Jan
Page Numbers: 103-127
Publication Title: Psychological Bulletin
Volume: 136
Issue: 1
Source: APA
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Cross-Sector and Interdisciplinary Research Collaborations as Paths for Career Success for Women in Academic Science and Engineering

Resource Title: Cross-Sector and Interdisciplinary Research Collaborations as Paths for Career Success for Women in Academic Science and Engineering

Description/Annotation: This 13-page paper from the 2012 WEPAN National Conference reviews the literature on the impact of cross-sector and interdisciplinary collaborations on women faculty's careers in STEM. The conference paper presents the data which were used to estimate a baseline measurement of faculty engagement in collaborative research at one institution (by gender) as well as the methodological hurdles in identifying and defining data appropriate for this purpose. Programs designed to increase women science and engineering faculty's participation in collaborative research initiatives are also presented. The full report is available in PDF format.

Author Last Name: Garland

Author First Name: Marie

Additional Author: Alestalo

: Sharon

Additional Author: Bhatia

: Shobha K.

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-13

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Cultural Competence in the College Biology Classroom

Resource Title: Cultural Competence in the College Biology Classroom

Description/Annotation: Regardless of the professional context in which cultural competence is being considered, there is widespread agreement that cultural competence is acquired neither quickly nor casually, but rather requires an intentional examination of one's thoughts and behaviors in the classroom throughout one's career (National Mental Health Information Center, 2007). All of these definitions of cultural competence emphasize the role of awareness, reflection, and continued change in striving toward cultural competence. In fact, the first step toward becoming culturally competent is realizing that you probably aren't. Funded by NSF GSE under award #0337949.

Author Last Name: Tanner

Author First Name: Kimberly

Additional Author: Allen

: Deborah

Publication Date: 2007

Page Numbers: 251-258

Publication Title: CBE- Life Sciences Education

Volume: 6

Issue: 4

Source: Life Sciences Education

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Professional Development](#) [Publications by Funder](#)

Cultural Models of the Admissions Process in Engineering: Views on the Role of Gender

Resource Title: Cultural Models of the Admissions Process in Engineering: Views on the Role of Gender

Description/Annotation: Eight male and eight female undergraduates were studied at a large state university that required a formal application for admission to an engineering department at the end of the 2nd

year. The view that it was easier for women than men to be admitted to engineering was prevalent among students, although this type of preferential treatment based on gender was illegal. This cultural model of engineering admission had implications for a wide range of male and female students' experiences in the college. Funded by NSF CAEE under award #0227558.

Author Last Name: Garrison
Author First Name: Lari
Additional Author: Stevens
: Reed
Additional Author: Sabin
: Portia
Additional Author: Jocuns
: Andrew
Publisher: American Society for Engineering Education
Publisher Location: Washington, D.C.
Publication Date: 2007
Publication Title: Proceedings of the American Society for Engineering Education Annual Conference
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors » Admissions Bias Cultural Influences Educational Factors Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Publications by Funder » NSF-DRL-CAEEPublications by Funder Individual Beliefs and Behaviors » Self-perception

Cultures that Promote the Retention of Undergraduate Women in Engineering: Findings from the Investing the Gender Component (IGC) Project

Resource Title: Cultures that Promote the Retention of Undergraduate Women in Engineering: Findings from the Investing the Gender Component (IGC) Project

Description/Annotation: Powerpoint presentation designed to share significant findings from the NSF sponsored Investigating the Gender Component (IGC) project. Results from the project highlight initiatives that institutions can implement to create cultures within engineering colleges and related disciplines to encourage students' short- and long-term career goals, particularly among females.

Author Last Name: Creamer
Author First Name: Elizabeth
Additional Author: Meszaros
:
Additional Author: Burger
:
Additional Author: Amelink
:
Additional Author: Catherine
Publication Date: 2009, Jun
Source: Amelink (Posted with permission)

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Cultural Influences Educational Factors Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Cultures Within Cultures: Welcoming or Unwelcoming for Women?

Resource Title: Cultures Within Cultures: Welcoming or Unwelcoming for Women?

Description/Annotation: This paper discusses a cultural analysis of engineering education which exposed disciplinary subcultures or "cultures within cultures". Cultural differences were noted between the engineering disciplines not only at the level of social behaviors and relationships, but also at the level of understood ways of valuing knowledge, teaching, and learning. This paper suggests that a study of these disciplinary subcultures may clarify the persistence of this differential participation, and lead to the formulation of new approaches to increasing women's participation in engineering education.

Author Last Name: Godfrey
Author First Name: Elizabeth

Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Dare to Dream: Corporate Encouragement of Young Women's Pursuits

Resource Title: Dare to Dream: Corporate Encouragement of Young Women's Pursuits
Description/Annotation: Autobiographical perspective on the role of mentoring for young girls in planning a career. Author hilights the value of having an outside person provide guidance and support to young girls.
Author Last Name: Abramson
Author First Name: Kim D.
Publication Date: 2005
Page Numbers: 31-33
Publication Title: Women & Environments International Magazine
Volume: 66/67
Source: HighBeam
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring](#)

Data & Statistics: Engineering Undergraduate and Graduate Student Enrollments

Resource Title: Data & Statistics: Engineering Undergraduate and Graduate Student Enrollments

Description/Annotation: User-friendly data tables created by CPST for WEPAN on undergraduate and graduate student enrollments for engineering disciplines between 1996-2008. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the 'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Undergraduate and Graduate Enrollments:

- Total Engineering Enrollment
- Aerospace Engineering Enrollment
- Bioengineering Enrollment
- Chemical Engineering Enrollment
- Civil Engineering Enrollment
- Computer Engineering Enrollment
- Electrical Engineering Enrollment
- Industrial Engineering Enrollment
- Mechanical Engineering Enrollment
- First Year Full-time Enrollment for each discipline

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to

Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 15, 2013

Resource Type Categories: Data and Statistics Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

Data & Statistics: Related Discipline Graduate Student Enrollments

Resource Title: Data & Statistics: Related Discipline Graduate Student Enrollments

Description/Annotation: User-friendly data tables created by CPST for WEPAN on graduate student enrollments for engineering-related disciplines (Computer Science, Mathematics, Physics and Chemistry) between 1996-2008. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the 'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Graduate Enrollments:

- Computer Science Enrollment
- Physics Enrollment
- Mathematics Enrollment
- Chemistry Enrollment

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 29, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Data & Statistics: Science and Engineering Salaries

Resource Title: Data & Statistics: Science and Engineering Salaries

Description/Annotation: User-friendly data tables created by CPST for WEPAN on salaries for male and female scientists and engineers for 2006. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the 'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Salaries for male and female scientists and engineers:

- with Bachelor's degrees
- with Master's degrees

- with Doctorate degrees
- Years since degree

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 29, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Data & Statistics: Science and Engineering Workforce

Resource Title: Data & Statistics: Science and Engineering Workforce

Description/Annotation: User-friendly data tables created by CPST for WEPAN on for male and female scientists and engineers in the workforce for 2006. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the 'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Workforce statistics for male and female scientists and engineers:

- Doctoral scientists and engineers in academic institutions by field, rank and gender
- Total Science and Engineering Faculty by field and tenure status
- with Doctorate degrees
- Employed scientists and engineers by field, employment sector and gender

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 29, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Data & Statistics: Undergraduate, Graduate and Doctoral Engineering Degrees

Resource Title: Data & Statistics: Undergraduate, Graduate and Doctoral Engineering Degrees

Description/Annotation: User-friendly data tables created by CPST for WEPAN on undergraduate, graduate and doctoral degrees for engineering disciplines between 1996-2009. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the

'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Bachelors, Masters and Doctorate Degrees:

- Total Engineering Degrees
- Aerospace Engineering Degrees
- Bioengineering Degrees
- Chemical Engineering Degrees
- Civil Engineering Degrees
- Computer Engineering Degrees
- Electrical Engineering Degrees
- Industrial Engineering Degrees
- Mechanical Engineering Degrees

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 24, 2013

Resource Type Categories: [Data and Statistics](#) Topical Categories: [Educational Factors](#) [Educational Factors » Formal Academic Preparation](#) [Educational Factors » Retention](#)

Data & Statistics: Undergraduate, Graduate and Doctoral Related Discipline Degrees

Resource Title: Data & Statistics: Undergraduate, Graduate and Doctoral Related Discipline Degrees

Description/Annotation: User-friendly data tables created by CPST for WEPAN on undergraduate, graduate and doctoral degrees for engineering

related disciplines (Computer Science, Chemistry, Physics, Mathematics) between 1990-2007. Data tables available in both excel and pdf formats.

Web site Link: [Link to Resource](#)

More: These statistics are only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, when you select the link to the resource, you will be asked to login to the WEPAN Knowledge Center Professional Community. After logging in, you will see the 'WEPAN Members' interest group that has the set of over 80 data and statistics files for enrollments, degrees, salaries and workforce data. If you see the Professional Community welcome page, you do not have access to the WEPAN members group.

If you have issues accessing the document library, please contact the WKC Knowledge Center Librarian at wkc@wepan.org.

Resources: Resources are organized in a document library by folders that you can browse. Both pdf and xls files are available for downloading.

Bachelors, Masters and Doctorate Degrees:

- Chemistry Degrees
- Computer Science Degrees
- Mathematics Degrees
- Physics Degrees

Site Access Details: This site is a private interest group in the WEPAN Knowledge Center Professional Community available only to WEPAN members.

Partners and Funding: WEPAN works with the Commission for Professionals in Science and Technology (CPST) in Washington, D.C. (www.cpst.org) to provide data tables in a user-friendly format that is relevant to Women in Engineering. Since it is CPST's business to sell this information, distribution of this information is not permitted.

Contact E-mail: wkc@wepan.org

Last Update Date: June 29, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Defining “Real World Engineering” Paradigms by Gender

Resource Title: Defining “Real World Engineering” Paradigms by Gender
<https://peer.asee.org/defining-real-world-engineering-paradigms-in-middle-school-by-gender>

Description/Annotation: This paper discusses determining specific contextual factors able to engage more effectively the target audience of single-gender or mixed gender populations within a particular classroom. For a particular set of desired skills or theoretical knowledge to be taught in the classroom, the utilization of specific types of human impact might be more useful for teachers seeking to maximize student interest and involvement based upon classroom demographics, particularly addressing and encouraging non-traditional students in engineering and technology at early ages.

Author Last Name: Prouty
Author First Name: L.
Additional Author: Cyr
: M.
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences Educational Factors Cultural Influences](#) » [Gendered Occupations & Study Choices Educational Factors](#) » [Pedagogy & Instruction](#)

Demystifying the Faculty Search Process: Increasing Women’s Pursuit of Academic Careers through Knowledge and Networking

Resource Title: Demystifying the Faculty Search Process: Increasing Women’s Pursuit of Academic Careers through Knowledge and Networking

Description/Annotation: This paper describes workshops at Rice University entitled "Negotiating the Ideal Faculty Position." At each of these workshops, a national invitation was extended and 350- 730 women responded with applications. This level of response

clearly demonstrates the interest in the topic and, at the same time, the lack of information available to women in their local institutions. One to three follow-up surveys have been completed by the workshop participants. The longitudinal data show that these workshops have had a strong impact on the participants' career paths, with a high percentage pursuing (and succeeding in) academic careers. Funded by NSF ADVABCE under award #0542562.

Author Last Name: Richards-Kortum
Author First Name: R.
Additional Author: Woods
:
Additional Author: Rinehart
:
Publication Date: 2008
Publication Title: ASEE Conference Proceedings
Source: Rice University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Professional Development Publications by Funder](#) [Career Factors](#) » [Retention](#)

Demystifying the Profession: Helping Junior Faculty Succeed

Resource Title: Demystifying the Profession: Helping Junior Faculty Succeed
Description/Annotation: This 30-page, 3-part, inexpensive booklet is used widely by faculty developers, diversity officers, orientation and mentoring organizers, and early-stage faculty themselves. 1) Visualizing yourself as a successful college teacher, writer, and colleague; 2) Junior faculty: job stresses and how to cope 3) Action list for chairs, deans, etc.
Author Last Name: Moody
Author First Name: JoAnn

Publisher: JoAnn Moody
Publisher Location: San Diego, CA
Publication Date: 2005
Page Numbers: 30
Source: Michigan State University
Source Type: Abstract

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Professional Development](#)

Description and Prescription: How Gender Stereotypes Prevent Women's Ascent Up the Organizational Ladder

Resource Title: Description and Prescription: How Gender Stereotypes Prevent Women's Ascent Up the Organizational Ladder

Description/Annotation: The author proposes gender bias in evaluations prevents women from advancing, therefore keeping the percentage of women at the top levels of organizations low. Preconceived notions about what women are like and how they should behave can negatively affect evaluations, and things that encourage this behavior are identified. For industry leadership and those striving to identify and decrease gender bias in the workplace.

Author Last Name: Heilman
Author First Name: Madeline E.
Publisher: Wiley-Blackwell
Publisher Location: Malden, MA
Publication Date: 2001
Page Numbers: 657-674
Publication Title: The Society for the Psychological Study of Social Issues
Volume: 57
Issue: 4
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

Design Physical Space that Has Broad Appeal (Case Study 1): Affecting Women's Entry and Persistence in Computing through Physical Space

Resource Title:	Design Physical Space that Has Broad Appeal (Case Study 1): Affecting Women's Entry and Persistence in Computing through Physical Space
Description/Annotation:	This 2-page case study uses the example of the Paul G. Allen Center for Computer Science & Engineering at the University of Washington to portray the importance of design in promoting diversity. According to the case study, physical environment is one of several factors that contribute to the gender gap in computing as it helps to create a climate where women feel more or less comfortable. The case study is available in PDF format.
Author Last Name:	Cphoon
Author First Name:	J. McGrath
Publisher:	National Center for Women & Information Technology (NCWIT)
Publisher Location:	Boulder, CO
Publication Date:	2011 Apr
Publication Title:	Promising Practices
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Design Principles 3.0 For Effective STEM Philanthropy

Resource Title:	Design Principles 3.0 For Effective STEM Philanthropy
Description/Annotation:	This 4-page report from Change the Equation (CTEq), a non-profit coalition of corporate leaders dedicated to mobilizing the business

community to improve the quality of STEM learning in the United States, contains 10 principles to provide important guidance for measuring the quality of STEM philanthropy. CTEq's principles draw on research and the collective experience of leaders in corporate philanthropy and they aim to define a framework for corporate engagement. The full report is available in PDF format.

Author Last Name: Change the Equation (CTEq)
Publisher: CTEq
Publisher Location: Washington, DC
Publication Date: 2011
Page Numbers: 1-4
Source: CTEq
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Design Squad Teacher's Guide

Resource Title: Design Squad Teacher's Guide

https://pbskids.org/designsquad/parentseducators/guides/teachers_guide.html

Description/Annotation: PBS' Design Squad goes to school with a new Teacher's Guide. Developed for middle school science and technology teachers, the guide blends 11 hands-on engineering challenges with 3 core science topics-force, electricity, and sound. The challenges use low cost, readily available materials and are linked to national science and technology standards.

Author Last Name: Design Squad
Publisher: WGBH Education Outreach
Publisher Location: Boston, MA
Page Numbers: 1-49
Source: PBS
Source Type: Full Text

Design Squad

Resource Title: Design Squad

Description/Annotation: Design Squad is a reality competition series on PBS where teenage contestants tackle engineering challenges for an actual client. They design everything from a hockey practice net for the Boston Bruins to a peanut butter grinder for a women's collective in Haiti. In the final episode, the top two scorers battle for the Grand Prize—a \$10,000 college scholarship from the Intel Foundation.

Web site Link: [Link to Resource](#)

Logo:

More: Design Squad goals are:

- To increase students' knowledge of engineering and the design process
- Improve the public image of engineering
- Encourage further exploration

Resources:

- Watch Design Squad on PBS and visit the Web site for full-streamed episodes, games, hands-on challenges, and much more.
- Special sections for "Engineers" and "Parents & Educators" provide an array of rich resources, including 5 activity guides with leader notes, an online training, and a calendar of nationwide events and trainings.
- Engaging profiles of each teenage participant include images and Q&A including family influence, favorite recent invention and engineering hero.

Site Access Details: The site is publicly accessible. Episodes of Design Squad can be purchased through the Apple iTunes Store.

Partners and Funding: DESIGN SQUAD is produced by WGBH Boston. Major funding for Design Squad is provided by the Corporation for Public Broadcasting and the Intel Foundation. Additional funding is provided by the National Council of Examiners for Engineering and Surveying, United Engineering Foundation (ASCE, ASME, AChE, IEEE, AIME), Noyce Foundation, Northrop Grumman, the IEEE and the Intel Corporation.

Contact Name: Natalie Hebshie
Contact E-mail: natalie_hebshie@wgbh.org
Last Update Date: May 20, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Informal Academic Preparation](#)

Designing and Implementing Family-Friendly Policies in Higher Education

Resource Title: Designing and Implementing Family-Friendly Policies in Higher Education

Description/Annotation: Higher education institutions must be more flexible in the tenure system in order to retain top talent. This report, based on 255 web surveys and 51 follow up telephone surveys, examines some of the most used procedures to provide flexibility to academics. The top three: tenure clock extensions, modified duties, and reduced or part time appointments, are the focus of this report. Specific examples from universities are presented as suggestions for other higher education institutions to improve work-life balance for academics. For academics and university leadership.

Author Last Name: Smith
Author First Name: Gilia C.
Additional Author: Waltman
: Jean A.
Publisher: The Center for the Education of Women
Publisher Location: Ann Arbor, MI
Publication Date: 2006
Page Numbers: 1-29
Source: The University of Michigan
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#)
» [Family Issues](#) [Career Factors](#) » [Retention](#)

Designing Computer Learning Environments for Engineering and Computer Science: The Scaffolded Knowledge Integration Framework

Resource Title:	Designing Computer Learning Environments for Engineering and Computer Science: The Scaffolded Knowledge Integration Framework https://link.springer.com/article/10.1007/BF02214052
Description/Annotation:	A look at the "scaffolded knowledge integration" framework that has been critical in enhancing and reforming the STEM disciplines.
Author Last Name:	Linn
Author First Name:	Marcia C.
Publisher:	Springer Netherlands
Publisher Location:	Rotterdam, Netherlands
Publication Date:	1995
Page Numbers:	103-126
Publication Title:	Journal of Science Education and Technology
Volume:	4
Issue:	2
Source:	University of California, Berkeley
Database Name:	SpringerLink
Source Type:	Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Designing Engineering and Science Education for the 21st Century

Resource Title:	Designing Engineering and Science Education for the 21st Century
Description/Annotation:	Describes engineering education practices deployed by Kansas State University, Purdue University, and University of Colorado

at Boulder such as curricula changes, active learning, and an emphasis on teamwork over competition.

Author Last Name: Franks
Author First Name: Suzanne
Additional Author: Gallagher
: Richard
Additional Author: Wright
: Jeff
Additional Author: Daniels
: Jane Z.
Additional Author: Tietjen
: Jill S.
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 6
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Destination Unknown: Gender Differences in Attrition from Graduate Study in Engineering

Resource Title: Destination Unknown: Gender Differences in Attrition from Graduate Study in Engineering

Description/Annotation: This paper examines outcomes and experiences of students within a particular, federally-funded program that is meant to increase the number of minority doctoral degree recipients in the sciences and engineering. The program provides students with a generous stipend, travel and research funding, special programming and support to their mentors. The program seeks to increase the number of underrepresented minority students who complete

master's degrees and then matriculate into doctoral degree programs. Thirty engineering students moved through graduate school from 2003 through 2008. Women engineering students were three times as likely to leave graduate school without attaining a degree, and women engineering graduates were less likely to matriculate into a PhD program than men. Comparative case study analysis is used to describe the subtle ways that engineering graduate school at a particular large state university differs for students based on gender. Implications for future research are discussed. Funded by NSF ALLIANCES under award #0803171.

Author Last Name: Frehill
Author First Name: Lisa
Additional Author: Lain
:
Amanda
Additional Author: Didion
:
Catherine
Publication Date: 2010
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-ALLIANCES](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Detecting Gender-Based Differential Item Functioning on a Constructed-Response Science Test

Resource Title: Detecting Gender-Based Differential Item Functioning on a Constructed-Response Science Test

Description/Annotation: This study explores methods for detecting gender-based differential item functioning on a 12th-grade constructed-response (CR) science test administered as part of the National Education Longitudinal Study of 1988. The study revealed that 1 item in particular displayed a large male advantage and contributed to the gender difference on total score.

Author Last Name: Hamilton
Author First Name: Laura S.
Publication Date: 1999
Page Numbers: 211-235
Publication Title: Applied Measurement in Education
Volume: 12
Issue: 3
Source: Taylor and Francis
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Individual Beliefs and Behaviors » Cognition Educational Factors Individual Beliefs and
Behaviors Educational Factors » Stereotype Threat on Testing

Determining Effective Teaching Behaviors and Staff Development Opportunities for Adjunct Faculty

Resource Title: Determining Effective Teaching Behaviors and Staff
Development Opportunities for Adjunct Faculty

Description/Annotation: A study was conducted at a community college to examine part-time students' and adjunct faculty members' perceptions of effective instructional behaviors and strategies. Students and faculty typically agreed about effective student learning and support strategies. They disagreed, however, on the staff development needs of part-time instructors.

Author Last Name: Jones
Author First Name: Steven Wayne
Publication Date: 1984, Oct
Source: ERIC
Source Type: Abstract, Available for sale

Developing 3-D spatial skills for engineering students

Resource Title:	Developing 3-D spatial skills for engineering students
Description/Annotation:	<p>Researchers have found that 3D spatial skills are critical to success in a variety of careers, particularly in engineering and science. For engineering, the ability to mentally rotate objects in space has been found to be of particular importance. Unfortunately, of all areas of cognition, 3D spatial skills still exhibit some of the most robust gender differences favoring males, and the most pronounced gender differences are in the area of mental rotations. For this reason, poorly developed 3D spatial skills could be a hindrance to the success of women in engineering. University educators are quick to recognise deficiencies in math and chemistry, and many US universities have developed remediation programs for students with weaknesses in these areas. At a time when we are actively recruiting women for engineering programs, however, it is important to consider all possible barriers to their success. Michigan Technological University (MTU) offers a special course aimed at improving the 3D spatial skills of engineering students, particularly women, since 1993. This paper will summarize the findings obtained over the past decade at MTU in improving the 3D spatial skills of engineering students. The paper will also feature improvements in student success that have been achieved, especially for women, through implementation of this bridging course. Funded by NSF GSE under award #0429020.</p>
Author Last Name:	Sorby
Author First Name:	SA
Publication Date:	2007
Page Numbers:	1-11
Publication Title:	Australian Journal of Engineering Education
Volume:	13
Source:	Engineers Media
Link Type:	Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender](#)
[Diversity](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by](#)
[Funder](#)

Developing 3-D Spatial Skills for K-12 Students

Resource Title: Developing 3-D Spatial Skills for K-12 Students

Description/Annotation: Three-dimensional spatial skills have been shown to be critical to success in engineering and other technological fields. Well-developed 3D spatial skills are particularly important for success in engineering graphics courses. Further, 3D spatial skills of women lag significantly behind those of their male counterparts, which could hinder their success in engineering graphics. Michigan Tech has been offering a special course aimed at improving the 3D spatial skills of engineering students, particularly women, since 1993. In a recent study, the materials developed at Michigan Tech were tested with a group of middle school students. This paper will summarize the findings obtained from this outreach to middle school students. Future plans for testing with additional K-12 audiences will be discussed. Funded by NSF GSE under award #0429020.

Author Last Name: Rafaelli

Author First Name: Lisa

Additional Author: Sorby

: Sheryl A.

Additional Author: Hungwe

: Kedmon

Publication Date: 2006

Page Numbers: 1-11

Publication Title: Engineering Design Graphics Journal

Volume: 70

Issue: 3

Source: Engineering Design Graphic Journal

Link Type: Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career Factors](#) » [Professional Development](#) [Publications by Funder](#)

Developing a Plan for Recruiting and Retaining Women and Minorities in Engineering Technology at Western Kentucky University

Resource Title:	Developing a Plan for Recruiting and Retaining Women and Minorities in Engineering Technology at Western Kentucky University
Description/Annotation:	This paper discusses the Women Embracing Engineering (WEE) and Minorities in Engineering (MIE) programs at Western Kentucky University formed to address the issues of low enrollment and retention. The WEE and MIE programs are expected to have a wide range of impact on the young women and minority students of south central Kentucky. By providing sources of encouragement, opportunity and role models, this program will stimulate the interest of underrepresented groups in these areas. In addition, these projects will lay the groundwork for continuing the recruitment and offering opportunities to women and minorities engineering.
Author Last Name:	Wilson
Author First Name:	Stacy S.
Publication Date:	2000
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Developing a Strong Brand Identity for Your Organization: Lessons Learned from the WEPAN Branding Initiative

Resource Title: Developing a Strong Brand Identity for Your Organization: Lessons Learned from the WEPAN Branding Initiative

Description/Annotation: Women in Engineering Programs and Advocates Network recently engaged Cameron, Christopher, Thomas (CCT) Advertising (Denver, CO) to develop an updated brand identity that reflected the organization's new strategic plan. The process WEPAN used in developing its updated brand identity serves as an excellent case study for organizations wishing to develop or strengthen their own brand.

Author Last Name: Bower

Author First Name: Carlie

Additional Author: Lange

: Sheila

Additional Author: Matt

: C. Diane

Additional Author: Trenor

: Julie

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 11

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Developing an Integrated Freshman Seminar for Women in Technology: An Innovative University-Corporate Partnership Model

Resource Title: Developing an Integrated Freshman Seminar for Women in Technology: An Innovative University-Corporate Partnership Model

Description/Annotation: In 2002, a partnership was developed between the School of Technology at Purdue University and John Deere to create a retention vehicle for beginning women students in the School. This paper presents an overview of the freshman seminar Women in Technology: Exploring the Possibilities, which was developed as the result of this partnership, and discusses the model that integrated the course, the student organization Women in Technology, and the living/learning community created to support these efforts.

Author Last Name: Wasburn

Author First Name: Mara H.

Additional Author: Miller

: Susan G.

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Developing Leadership Capacity in Working Adult Women Technical Graduate Students Research Interview Results with Alumni

Resource Title: Developing Leadership Capacity in Working Adult Women Technical Graduate Students Research Interview Results with Alumni

Description/Annotation: This paper looks at the issues that limit engineering women's opportunities for faster advancement, and shares information about a course in developing leadership capacity in women engineers, documenting progress based on interviews with alumni. Significant strides are being seen in the women that understand and practice effective leadership, and organizations that can create a supportive climate for their practice.

Author Last Name: Millam

Author First Name: Elaine R.
Additional Author: Bennett
: Ronald J.
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Leadership & Management](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Developing mentoring relationships to support the careers of women in electrical engineering and computer technologies. An analysis on mentors' competencies

Resource Title: Developing mentoring relationships to support the careers of women in electrical engineering and computer technologies. An analysis on mentors' competencies

Description/Annotation: This paper discusses the important elements of mentoring schemes addressed to women deciding engineering education and career and analyzes the proper mentor's competencies. The study reveals that mentors should have a wide range of qualifications apart from their technical background, such as good professional level and training experience, as well as willingness, communication skills and other individual characteristics related to their personality.

Author Last Name: Pisimisi
Author First Name: S.S.
Additional Author: Ioannides
: M.G.
Publication Date: 2005
Page Numbers: 477-486

Publication Title: European Journal of Engineering Education
Volume: 30
Issue: 4
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Developing Retention Strategies for Women that Promote Student Success in Engineering and the Applied Sciences

Resource Title: Developing Retention Strategies for Women that Promote Student Success in Engineering and the Applied Sciences

Description/Annotation: The Women in Applied Science and Engineering (WISE) Student Success Program was designed as a comprehensive approach to increase the retention of female undergraduate students in the College of Engineering and Applied Sciences (CEAS) at Arizona State University (ASU). Goals of the program include establishing contact with at-risk female engineering students, providing information on college and university resources, improving students' GPA for current and future semesters, and ensuring that the students achieve semester goals by maintaining personal contact. Initially, sixteen female engineering students were involved in the Spring 1999 pilot program. This paper presents an overview of the WISE Student Success Program and includes a discussion of the need for and impact of retention programs specifically geared toward female engineering students. In addition, future projections of implementation and direction of WISE student retention programs are discussed.

Author Last Name: Fletcher
Author First Name: Shawna
Additional Author: Anderson-Rowland
:
Mary
Publication Date: 2000

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Educational Factors » Retention

Developing spatial cognitive skills among middle school students

Resource Title: Developing spatial cognitive skills among middle school students
Description/Annotation: Funded by NSF GSE under award #0714197 & #0429020.
Author Last Name: Sorby
Author First Name: Sheryl
Page Numbers: 312-315
Publication Title: Cognitive Processing
Volume: 10 Suppl
Issue: 2
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Individual Beliefs and Behaviors » Cognition Educational Factors Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder

Development and Implementation of a Peer Mentoring Program for Women in Engineering Students

Resource Title: Development and Implementation of a Peer Mentoring Program for Women in Engineering Students

Description/Annotation: This paper discusses the development and implementation of the Society of Women Engineers (SWE)/Women in Engineering (WiE) Peer Mentoring Program at the College of Engineering at the University of Arkansas to increase retention of women in engineering students.

Author Last Name: Farver

Author First Name: Dawn

Additional Author: Gattis

: Carol

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors Career Factors](#) » [Mentoring](#)

Development of a K-12 Summer Program to Promote Women in Engineering and Technology

Resource Title: Development of a K-12 Summer Program to Promote Women in Engineering and Technology

Description/Annotation: This paper discusses a K-12 program for females offered at the Purdue School of Engineering and Technology at Indiana University-Purdue University Indianapolis (IUPUI) in collaboration with the Indiana University School of Education summer program "Young Scholars." The course entitled "Technology for Girls" is a one-week, all-day course for girls entering grades 6-8 emphasizing a broad range of concepts in science, engineering, and technology presented in an informal, supportive, and educational setting. The objectives of the course are to encourage hands-on science, engineering, and technology activities by females, increase interest and awareness of the potential careers for women in engineering and technology, and create a sense of acceptance, and increased self-esteem for young females entering these typically male-dominated academic and professional fields. The development, sample course material,

instructional approach, general results, and the overall experience from this course are discussed.

Author Last Name: Workman
Author First Name: Jamie K.
Publication Date: 2001
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Development of a study abroad experience in Africa as a recruitment and retention tool for women in engineering

Resource Title: Development of a study abroad experience in Africa as a recruitment and retention tool for women in engineering

Description/Annotation: This paper describes efforts to recruit, retain, and attract additional female students to engineering through the on-going development of an independent engineering study abroad program in Africa that integrates engineering and social justice projects.

Author Last Name: London
Author First Name: M.R.
Additional Author: Cadwell
:
J.R.
Additional Author: Maxwell
:
J.A.
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Development of a Women in Engineering Program: From Research to Implementation

Resource Title: Development of a Women in Engineering Program: From Research to Implementation

Description/Annotation: This paper discusses the development and implementation of the Women in Engineering Program at Michigan State University. The primary focus of the program is the recruitment of new women engineering students and the retention in the first and second years.

Author Last Name: Cordes

Author First Name: Judith

Additional Author: Wolff

: Thomas

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Development, Implementation, and Evaluations of a Science Learning Community for Underrepresented Students

Resource Title: Development, Implementation, and Evaluations of a Science Learning Community for Underrepresented Students

Description/Annotation: This paper discusses the Science Learning Community (SLC) at Kent State University, developed to help minority and first-generation college students succeed in biology, chemistry, and nursing majors. At the conclusion of year 1, retention rates for SLC students were compared to three control groups matched for gender, minority status, ACT score, and course registration. Students in the SLC were retained at a higher rate than control group members and expressed high satisfaction with the SLC experience during exit interviews.

Author Last Name: Garrett-Ruffin

Author First Name: Sherona

Additional Author: Martsolf

: Donna S.

Publication Date: 2005

Page Numbers: 197-208

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Differences in Men and Women Scientists' Perceptions of Workplace Climate

Resource Title: Differences in Men and Women Scientists' Perceptions of Workplace Climate

Description/Annotation: The climate of science is often described as "chilly" toward women and is blamed for women's underrepresentation and slow advancement within science fields. However, evidence of a chilly climate is often indirect. In this study of male and female science

faculty members at a major research university, the authors found direct evidence for a chilly climate: A smaller percentage of women than men described their workplace environments in positive terms, and a larger percentage of women than men described uncomfortable, tense, or hostile interactions. Some men and many women said that gender bias might explain women's negative experiences; at the same time, these men and women stated that they could not say for certain that gender bias existed in their departments. Reasons for interviewees' difficulties in identifying and labeling gender bias are discussed.

Author Last Name: Gunter
Author First Name: Ramona
Additional Author: Stambach
:
Amy
Publication Date: 2005
Page Numbers: 97-116
Publication Title: The Journal of Women and Minorities in Science & Engineering
Volume: 11
Issue: 1
Source: Begell House
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [Self-perception Career Factors](#) » [Stereotype Threat](#)

Differences in Self-Efficacy: Is it Women or is it Engineering?

Resource Title: Differences in Self-Efficacy: Is it Women or is it Engineering?
Description/Annotation: Differences in self-efficacy among STEM students by ethnicity, by gender, and by major are explored in a cross-sectional study of over 600 undergraduates. The importance of gender is confirmed (men express greater self-efficacy than women), but differences by ethnicity (particularly among black, white, and asian students) are also identified.

Author Last Name: Wilson
Author First Name: Denise
Additional Author: Freed
:
Additional Author: Shaffer
:
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-
perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Differences in students outcomes by types of living-learning programs: The development of an empirical typology

Resource Title: Differences in students outcomes by types of living-learning programs: The development of an empirical typology

Description/Annotation: This study involved the development of the first empirical typology of living-learning programs and its use in the assessment of students' learning outcomes. Using two-step cluster analysis with data from nearly 300 living-learning programs at 34 U.S. postsecondary institutions, the authors identified three structural types of programs: (a) small, limited resourced, primarily residential life programs; (b) medium, moderately resourced, student affairs/academic affairs combination programs; and (c) large, comprehensively resourced, student affairs/academic affairs collaboration programs. Multiple regression analyses revealed that students in the large academic affairs/student affairs collaborations and small residential life-based living-learning program types exhibited stronger self-reported learning outcomes than those in the medium combination programs. Implications for future research and practice are discussed. Funded by NSF GSE under award #0521762

Author Last Name: Inkelas
Author First Name: Karen Kurotsuchi
Additional Author: Soldner
:
Additional Author: Longerbeam
:
Additional Author: Leonard
:
Additional Author: Jeannie Brown
Publication Date: 2008
Page Numbers: 495-512
Publication Title: Research in Higher Education
Volume: 48
Issue: 6
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
[Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) »
[Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Differences in the Gender Gap: Comparisons across Racial/Ethnic Groups in Education and Work. Policy Information Report.

Resource Title: Differences in the Gender Gap: Comparisons across Racial/Ethnic Groups in Education and Work. Policy Information Report.

Description/Annotation: This 54-page report discusses the intersection of gender and race/ethnicity throughout the educational process and into the workforce. The study used data from a variety of sources to look for pattern in achievement in many aspects and found few differences or patterns suggesting that racial/ethnic background affects the gender gap in achievement. Indeed, the author suggests that the data supports the view that gender differences in

achievement most consistently reflect differences that vary by measurement rather than systematic gender discrimination.

Author Last Name: Coley
Author First Name: Richard J.
Publisher: Policy Information Center
Publisher Location: Princeton, NJ
Publication Date: 2001
Page Numbers: 54
Source: Educational Testing Service
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Different Is good: barriers to retention for women in software engineering

Resource Title: Different Is good: barriers to retention for women in software engineering

Description/Annotation: This study is the initial activity in a proposed longitudinal study of female students in the Software Engineering program at a small private technical university in the US. In imitation of a national trend, the female students were perceived to be dropping out of the software engineering program in greater numbers and for different reasons than the male students. An examination of the number of students leaving the university and a questionnaire for the newest students entering the university were completed. The results of the study confirmed the initial perception.

Author Last Name: Radziemski
Author First Name: C.
Additional Author: Mitchell
:
Publication Date: 2000
Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Differential Experiences of Women and Minority Engineering Students in a Cooperative Education Program

Resource Title: Differential Experiences of Women and Minority Engineering Students in a Cooperative Education Program

Description/Annotation: In this study, a mixed methods design was used to examine students' perceptions of mentoring in a cooperative education program in a southeastern university. Research findings indicated a statistically significant difference between gender and the psychosocial aspect of mentoring. Analysis of the qualitative data further confirmed differences in cooperative education experiences with respect to both gender and ethnicity.

Author Last Name: Fifolt

Author First Name: Matthew M

Additional Author: Abbott

: Gypsy

Publication Date: 2008

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 3

Source: Harvard University

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Mentoring](#)

Digest of Education Statistics 2006

Resource Title: Digest of Education Statistics 2006

Description/Annotation: The National Center for Education Statistics compiles statistical information on American education as a whole, from pre-kindergarten through graduate school. This Digest, the 42nd in a series started in 1962, includes data from a wide variety of areas related to education including counts of schools, teachers, and students; financial information, and achievement. Of interest to many agencies, industry, and academics.

Author Last Name: Snyder

Author First Name: Thomas D.

Additional Author: Dillow

: Sally A.

Additional Author: Hoffman

: Charlene M.

Publisher: U.S. Government Printing Office

Publisher Location: Washington, D.C.

Publication Date: 2007, Jul

Source: NCES

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Digest of Education Statistics 2011

Resource Title: Digest of Education Statistics 2011

Description/Annotation: This 726-page annual report from the National Center for Education Statistics (NCES) contains a compilation of statistical information on American education as a whole, from pre-kindergarten through graduate school. This Digest, the 47th in a series started in 1962, includes data on a variety of topics, including number of schools and colleges, teachers, enrollments, and graduates; educational attainment; finances; and federal funds

for education, libraries, and international comparisons. The full report is available in PDF format.

Author Last Name: Snyder
Author First Name: Thomas D.
Additional Author: Dillow
:
Sally A.
Publisher: NCES
Publisher Location: Washington, DC
Publication Date: 2012, Jun
Page Numbers: 1-726
Source: NCES
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Digigirlz

Resource Title: Digigirlz

Description/Annotation: Microsoft-hosted website providing high school girls with opportunities to learn about careers in technology, talk with Microsoft employees about their life experiences, and enjoy hands-on computer and technology workshops.

Web site Link: [Link to Resource](#)

More: Events include:

- [Digigirlz Days](#) - This one-day event, held at multiple Microsoft locations worldwide, is designed to provide high school girls with a better understanding of what a career in technology is all about.
- [High Tech Camp for Girls](#) - Works to dispel stereotypes of the high-tech industry by providing opportunities for young people to experience, firsthand, what it is like to develop cutting-edge technology.

Resources: Resources include:

- Online classes for podcasting and html coding

Site Access Details: This site is publicly accessible.

Partners and Funding: Microsoft

Last Update Date: June 15, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Industry Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Digital Games, Gender and Learning in engineering: Do females benefit as much as males?

Resource Title: Digital Games, Gender and Learning in engineering: Do females benefit as much as males?

Description/Annotation: This research paper explores whether there is a gender difference in the beneficial effects of Racing Academy, a video game used to support undergraduate students studying mechanical engineering. Results indicated that there was no gender difference in the beneficial effect of the video game, however there was some evidence that female students found the video game more motivating than male students. The implications for the use and design of video games for supporting learning for both males and females are discussed.

Author Last Name: Joiner

Author First Name: Richard

Additional Author: Iacovides

:

Additional Author: Owen

:

Additional Author: Gavin

:

Additional Author: Clibbery

:

Publisher: Springer

Publication Date: 2011

Page Numbers: 178-185

Publication Title: Journal of Science Education and Technology
Volume: 20
Issue: 2
Source: University of Bath
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Cultural Influences](#) [Individual Beliefs and Behaviors Cultural Influences](#) » [Media & Entertainment](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Dilemmas in the Mentoring of Faculty Women in Engineering: "The heroic journey" versus "The caring community"

Resource Title: Dilemmas in the Mentoring of Faculty Women in Engineering: "The heroic journey" versus "The caring community"

Description/Annotation: This eight page paper discusses obstacles women face in the academic workforce. It provides information on how to mentor women through these issues and help them to overcome and succeed in the academic engineering world.

Author Last Name: Chesler
Author First Name: Naomi
Additional Author: Chesler
:
Mark
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 8
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Disciplinary Discourses: a case study of gender in information technology and design courses

Resource Title:	Disciplinary Discourses: a case study of gender in information technology and design courses
Description/Annotation:	The article considers the ways in which gender continues to influence the pattern of recruitment onto both information technology (IT) and design courses. Fewer women are attracted to product and industrial design, and there has been a decline in the proportion of women on IT courses. While there has been work that has looked at gender inequalities in single discipline areas, little work has looked across subjects. The article attempts to characterize the discourses of design and computing, and in particular, gendered notions of technology.
Author Last Name:	Clegg
Author First Name:	Sue
Publication Date:	1999
Page Numbers:	43-55
Publication Title:	Gender and Education
Volume:	11
Issue:	1
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Discipline-Based Education Research: Understanding and Improving Learning in Undergraduate Science and Engineering

Resource Title:	Discipline-Based Education Research: Understanding and Improving Learning in Undergraduate Science and Engineering
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Description/Annotation: Synthesis study of DBER across physics, chemistry, engineering, biology, the geosciences, and astronomy on undergraduate teaching and learning.

Author Last Name: Singer

Author First Name: Susan R.

Additional Author: Nielsen

: Natalie R.

Additional Author: Schweingruber

: Heidi A.

Publisher: The National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2012

Source: NAE

Source Type: Link to full text

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type
Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Educational Factors](#) » [Pedagogy & Instruction](#)

Discounting Their Own Success: A Case for the Role of Implicit Stereotypic Attribution Bias in Women's STEM Outcome

Resource Title: Discounting Their Own Success: A Case for the Role of Implicit Stereotypic Attribution Bias in Women's STEM Outcome

Description/Annotation: This article introduces stereotypic attribution bias as an important concept that should be included in theoretical models (including the stereotype inoculation model) that involve the influence of environmental factors on outcomes for members of underrepresented groups, such as women in STEM. Similar to the way that “unwelcoming environments,” defined as those with features revealing the presence of stereotypes about underrepresented groups, can lead to processes that diminish group members’ outcomes, I propose that these environments can influence stereotypic attribution biases for performance. Specifically, I pose these questions: Can being in settings that

subtly promote gender stereotypes lead women to spontaneously form stereotypically biased attribution patterns, that is, to perhaps unintentionally externalize women's successes, and internalize their setbacks in that domain? And what might the consequences of such a pattern of attribution be for these women? Funded by NSF GSE under award #0936434.

Author Last Name: Sekaquaptewa
Author First Name: Denise
Publication Date: 2011, Dec
Page Numbers: 291-295
Publication Title: Psychological Inquiry
Volume: 22
Issue: 4
Source: Taylor and Francis
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

Discovering Directions for Change in Higher Education Through the Experiences of Senior Women Faculty

Resource Title: Discovering Directions for Change in Higher Education Through the Experiences of Senior Women Faculty

Description/Annotation: WISELI employed the "discovery interviews" method to characterize the experiences of senior women faculty in science and engineering on campus. This method allowed WISELI to reach its aims of (1) gaining information from senior women that would inform the programs developed by WISELI, and (2) building relationships among the senior women and WISELI. The discovery interview process also had some unintended consequences, including creation of an expectation of advocacy that exceeded the original intent of the project. This method was well-matched to the needs of WISELI as a change agent at the UW-Madison, and has contributed a great deal to its Institutional

Transformation efforts, primarily by changing WISELI's perceptions of what leadership means to senior women faculty.

Author Last Name: Sheridan
Author First Name: Jennifer
Additional Author: Brennan
:
Additional Author: Patricia Flatley
Additional Author: Carnes
:
Additional Author: Molly
Additional Author: Handelsman
:
Publication Date: 2006
Page Numbers: 387-396
Publication Title: Journal of Technology Transfer
Volume: 31
Issue: 3
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Discovering Implications of the Academic Pathways Study for Women on Your Campus

Resource Title: Discovering Implications of the Academic Pathways Study for Women on Your Campus

Description/Annotation: The Academic Pathways Study (APS) was a large study of the engineering student experience that was part of the Center for the Advancement of Engineering Education. Participants will consider the implications of APS findings with respect to the education of women engineering students, in general and on their campuses in particular.

Author Last Name: Atman

Author First Name: Cynthia J.
Additional Author: Turns
: Jennifer A.
Additional Author: Yasuhara
: Ken
Additional Author: Kilgore
: Deborah
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Formal Academic Preparation](#)

Discovery Science (DSC)

Resource Title: Discovery Science (DSC)

Description/Annotation: Discovery Science Center is a nonprofit organization dedicated to educating young minds, assisting teachers and increasing public understanding of science, math and technology through interactive exhibits, events, programs, and professional development.

Web site Link: [Link to Resource](#)

More: Discovery Science Center (DSC), a 59,000-square-foot learning facility located in California (Orange County) designed to spark children's natural curiosity. Within DSC there are approximately 120 interactive exhibits that encourage visitors to search for answers, think and explore. The center is divided into several themed areas where guests will explore Perception, Dynamic Earth, Quake Zone, Techno Arts, Air & Space, Discovery Stadium and KidStation (an area for 5-year-olds and under).

Resources: Education programs are intended to help K-12 students perform better in school and on State science tests required in the 5th and 7th grades. Offers a wide range of Science-to-Go and assembly

programs (where they come to your school) as well as fieldtrip programs (where your school visits DSC).

Lesson plans for K-12 available online.

Site Access Details: This site is publicly accessible.

Partners and Funding: Funded by Orange county, corporate sponsors and individual donations.

Contact E-mail: contactus@discoverycube.org

Last Update Date: May 8, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Discursive geographies in science: space, identity, and scientific discourse among indigenous women in higher education

Resource Title: Discursive geographies in science: space, identity, and scientific discourse among indigenous women in higher education

Description/Annotation: Despite completing undergraduate degrees in the life sciences, few Indigenous women choose to pursue careers in scientific research. To help us understand how American Indian students engage with science, this ethnographic research describes (1) how four Navajo women identified with science, and (2) the narratives they offered.

Author Last Name: Brandt

Author First Name: Carol B.

Publication Date: 2008, Sep

Page Numbers: 703

Publication Title: Cultural Studies of Science Education

Volume: 3

Issue: 3

Source: EBSCO

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs
and Behaviors » Self-perception

Disrupting Masculinities: Women Engineers and Engineering Workplace Culture

Resource Title: Disrupting Masculinities: Women Engineers and Engineering Workplace Culture

Description/Annotation: This article examines the factors that contribute to the under-representation of women in the engineering profession. One view being proposed that could explain why women are under-represented in engineering is women's tendency to take career breaks when they become mothers. Another argument concerns the possibility for women engineers to feel unsure of their technical abilities as engineers.

Author Last Name: Bastalich

Author First Name: Wendy

Additional Author: Franzway

: Suzanne

Additional Author: Gill

: Judith

Additional Author: Mills

: Julie

Additional Author: Sharp

: Rhonda

Publication Date: 2007

Page Numbers: 385-400

Publication Title: Australian Feminist Studies

Volume: 22

Issue: 54

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Dissecting the Data 2012: Examining STEM Opportunities and Outcomes for Underrepresented Students in California

Resource Title:	Dissecting the Data 2012: Examining STEM Opportunities and Outcomes for Underrepresented Students in California
Description/Annotation:	This 24-page report from the Level Playing Field Institute (LPFI) examines data on STEM preparation from K-12 through higher education among underrepresented students of color in the state of California. Data within the report reveal disparate outcomes in math and science in the earliest tested grades, culminating in low proficiency rates, low rates of college readiness and preparation, and limited enrollment and completion of STEM degrees in higher education among underrepresented students of color. The report concludes with promising practices and recommendations to address these challenges within California. The full report is available in PDF format.
Author Last Name:	Scott
Author First Name:	Allison L.
Additional Author:	Martin
:	Alexis
Publisher:	LPFI
Publisher Location:	San Francisco, CA
Publication Date:	2012, Mar
Page Numbers:	1-24
Source:	LPFI
Source Type:	Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Diverse Backgrounds and Personalities can Strengthen Groups

Resource Title:	Diverse Backgrounds and Personalities can Strengthen Groups
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Description/Annotation: This article from Stanford Graduate School of Business examines the idea that diverse teams are good for an organization and answers the question of whether diversity is a help or a hindrance. Homogeneous teams tend to be surprised by conflict whereas diverse teams expect conflict. For industry and the workplace.

Author Last Name: Rigoglioso

Author First Name: Marguerite

Publisher: Stanford Graduate School of Business

Publisher Location: Stanford, CA

Publication Date: 2006, Aug

Publication Title: Stanford GSB News

Source: Stanford Graduate School of Business

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Diverse Pathways to the PhD: A Study of Women Faculty in the Sciences and Engineering at a Hispanic-serving Institution

Resource Title: Diverse Pathways to the PhD: A Study of Women Faculty in the Sciences and Engineering at a Hispanic-serving Institution

Description/Annotation: The National Science Foundation's ADVANCE grants for Institutional Transformation have been awarded to institutions to study, and to implement programs to improve, the number of women who are recruited, retained, and promoted as faculty in the sciences and engineering at American universities. At one ADVANCE institution, 57 women faculty in the social sciences, natural sciences, and engineering were interviewed to determine their pathways to the doctoral degree. Through the use of qualitative analyses, this study identified major themes that emerged from the interviews of Anglo, international, and Latina faculty. The findings of the study should contribute to the discourse on underrepresentation of women faculty in the sciences and engineering in general, and Latina faculty in particular. Funded by NSF ADVANCE under award #0245071.

Author Last Name: Raybov
Author First Name: Igor
Additional Author: Witherspoon
:
Patricia D.
Publication Date: 2008
Page Numbers: 319-337
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 3
Source: Begell House
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE](#) [Publications by Funder](#) [Career](#)
[Factors](#) » [Retention](#)

Diversification of a University Faculty: Observations on Hiring Women Faculty in the Schools of Science and Engineering at MIT

Resource Title: Diversification of a University Faculty: Observations on Hiring Women Faculty in the Schools of Science and Engineering at MIT

Description/Annotation: MIT report on the impact of external pressures and internal administration efforts on creating, measuring and persisting in STEM faculty hiring programs to promote diversity at MIT. Actions recommended to measure progress at the Institute level (vs school), changes in the candidate search processes to draw out more qualified diverse candidates and accountability to ensure that progress is conscious and consistent over the years.

Author Last Name: Hopkins
Author First Name: Nancy
Publisher: Massachusetts Institute of Technology
Publisher Location: MA

Publication Date: 2006, Mar/Apr
Page Numbers: 9
Publication Title: MIT Faculty Newsletter
Volume: XVIII
Issue: 4
Source: MIT
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

Diversifying Biomedical Training: A Synergistic Intervention

Resource Title: Diversifying Biomedical Training: A Synergistic Intervention

Description/Annotation: This article describes the multiple pathway approaches that have been employed by a school of medicine at an urban Midwest research institution to increase the number of URM students enrolled in, and graduating from, doctoral programs within basic science departments, through the combination of R25 grants and other grant programs funded by the National Institutes of Health (NIH). This article outlines the process of implementing a strong synergistic approach to the training of URM students through linkages between the NIH-funded "Bridges to the Doctorate (BRIDGES)" and "Initiative for Maximizing Graduate Student Diversity (IMGSD)" programs.

Author Last Name: Gibau

Author First Name: Gina Sanchez

Additional Author: Foertsch

: Julie

Additional Author: Blum

: Janice

Additional Author: Brutkiewicz

: Randy R.

Additional Author: Queener
: Sherry
Publication Date: 2010
Page Numbers: 215-235
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 3
Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Diversity as Strategy

Resource Title: Diversity as Strategy

Description/Annotation: A study of a Diversity Task Force launched by IBM to maximize the potential of their employee and customer base. Eight groups were identified, including women, Asians, blacks, and people with disabilities. These groups were asked a number of critical questions such as what was needed from IBM to make them feel welcome and valued, and how could IBM address their constituency's needs to make IBM their preferred solution provider.

Author Last Name: Thomas

Author First Name: David A.

Publisher: Harvard Business School Publishing

Publisher Location: Boston, MA

Publication Date: 2004, Sep

Page Numbers: 98-108

Publication Title: Harvard Business Review

Volume: 82

Issue: 9

Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Diversity by Design

Resource Title: Diversity by Design

Description/Annotation: Diversity by Design: Guide to Fostering Diversity in the U.S. Civil Engineering Workforce provides practical, hands-on suggestions for how to foster, improve, and maintain a diverse and thriving workforce within the civil engineering profession. It highlights the aspects of the current civil engineering workplace that are not conducive to diversity, and then gives suggestions based on lessons learned from individuals and organizations in the profession for how to create a more diverse workplace. Topics discussed include: Diversity: Why It's Important to the Civil Engineering Profession, Roadmap to Diversity; The Diversity Landscape; Retaining Diverse Civil Engineers; Recruiting Diverse Civil Engineers; and Managing a Diverse Workforce.

Author Last Name: Hatch

Author First Name: Sybil E.

Publisher: American Society of Civil Engineers

Publication Date: 2008

Page Numbers: 70

Source: ASCE

Source Type: Abstract, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Hiring Practices](#)

Diversity Catalysts: Educating The STEM Community On The Way To Institutional Transformation

Resource Title: Diversity Catalysts: Educating The STEM Community On The Way To Institutional Transformation

Description/Annotation: This 13-page paper from the 2012 WEPAN National Conference presents the journey of the Diversity Catalysts, three highly successful faculty at Purdue University recruited by the Purdue-ADVANCE project to educate all the faculty and in particular, the majority, about the benefits of diversity and inclusion of women in STEM. The conference paper documents the journey of the Diversity Catalysts and of the entire team and how it has had an impact in various venues to move towards institutional transformation. The full paper is available in PDF format.

Author Last Name: Kokini

Author First Name: Klod

Additional Author: Buzzanell

: Patrice M.

Additional Author: Chapple

: Clint

Additional Author: Hirsch

: Andrew

Additional Author: Howell

: Kathleen

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-13

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Diversity in Academic Medicine: The Stages of Change Model

Resource Title: Diversity in Academic Medicine: The Stages of Change Model
Description/Annotation: We have found that smoking provides a useful metaphor for diversity. This commentary describes the "stages of change" model with regards to diversifying an organization.
Author Last Name: Carnes
Author First Name: Molly
Additional Author: Handelsman
:
Additional Author: Sheridan
:
Publication Date: 2005
Page Numbers: 471-475
Publication Title: Journal of Women's Health
Volume: 14
Issue: 6
Source: Mary Ann Liebert, Inc. Publishers
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Diversity in Engineering (DinE) Bibliography

Resource Title: Diversity in Engineering (DinE) Bibliography
Description/Annotation: The Diversity in Engineering (DinE) online bibliography is a collection of 536 journal articles and conference papers published 2005-2010. Recognizing challenges related to locating relevant scholarship on diversity in engineering, DinE serves as a searchable online resource for anyone interested in this topic area. All entries (including authors, titles, abstracts, and keywords) are fully searchable, sortable, and exportable.
Web site Link: [Link to Resource](#)
Logo:

Resources: The Diversity in Engineering (DinE) online bibliography is a collection of 536 journal articles and conference papers published 2005-2010. Recognizing challenges related to locating relevant scholarship on diversity in engineering, DinE serves as a searchable online resource for anyone interested in this topic area. All entries (including authors, titles, abstracts, and keywords) are fully searchable, sortable, and exportable.

Site Access Details: INES is a membership based organization. Their bibliography is publicly accessible for free.

Partners and Funding: The Diversity in Engineering (DinE) Bibliography is based on work supported by the U.S. National Science Foundation (NSF) under grant EEC-0935109. DinE is hosted by the International Network for Engineering Studies (INES).

Contact Name: Brent Jesiek

Contact E-mail: bjesiek@purdue.edu

Last Update Date: July 28, 2013

Resource Type Categories: [Articles/Reports](#) » [Bibliographies Database/Tool](#) » [Database Topical Categories: Cultural Influences Cultural Influences](#) » [Gender Diversity](#)

Diversity in Engineering Bibliography

Resource Title: Diversity in Engineering Bibliography

Description/Annotation: The Diversity in Engineering (DinE) online bibliography is a collection of journal articles and conference papers published 2005-2010. Recognizing challenges related to locating relevant scholarship on diversity in engineering, DinE serves as a searchable online resource for anyone interested in this topic area. All entries (including authors, titles, abstracts, and keywords) are fully searchable, sortable, and exportable. The work presented here builds on prior efforts to collect and analyze collections of engineering education research papers generally (Jesiek et al., 2011) and papers on gender and engineering more specifically (Beddoes, Borrego, & Jesiek, 2009).

Author Last Name: Jesiek

Author First Name: Brent

Additional Author: Beddoes

: Kacey

Resource Type Categories: [Articles/Reports](#) » [Bibliographies Database/Tool](#) » [Database Website/Portal](#) Topical Categories: [Cultural Influences](#)[Cultural Influences](#) » [Gender Diversity](#)

Diversity in Engineering Education: An African American Female Professor's Perspective

Resource Title:	Diversity in Engineering Education: An African American Female Professor's Perspective
Description/Annotation:	Diversity of the engineering workforce begins with addressing the diversification issues in the education of engineers. The author describes some of the issues related to diversifying engineering education which include not only the diversification of students and faculty but also the curriculum. She suggests that special attention be paid to the doubly underrepresented group—the female engineering student of color. She concludes that such diversification would benefit both female and male engineering students.
Author Last Name:	Fleming
Author First Name:	Lorraine N.
Publisher:	American Society of Civil Engineers (ASCE)
Publisher Location:	Reston, VA
Publication Date:	2008, Jan
Page Numbers:	32-34
Publication Title:	Leadership and Management in Engineering (LME)
Volume:	8
Issue:	1
Source Type:	Abstract

Topical Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Cultural Influences](#) » [Stereotype Threat](#)

Diversity in Engineering: Managing the Workforce of the Future

Resource Title:	Diversity in Engineering: Managing the Workforce of the Future
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Description/Annotation: This report contains fifteen presentations from a workshop on best practices in managing diversity, hosted by the NAE Committee on Diversity in the Engineering Workforce.

Author Last Name: Committee on Diversity in the Engineering Workforce

Additional Author: National Academy of Engineering

Publisher: National Academies Press, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2002

Page Numbers: 170

Source: NAE

Source Type: Summary, Hardcopy Available for sale, Full text download

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Diversity in Science and Engineering Employment in Industry

Resource Title: Diversity in Science and Engineering Employment in Industry

Description/Annotation: This 8-page report from the National Science Foundation (NSF) examines sex, racial/ ethnic, and disability characteristics of scientists and engineers employed in industry. The report includes data disaggregated by highest educational degree, occupation, primary and secondary work activity, and management occupations. The full report is available in PDF format.

Author Last Name: Falkenheim

Author First Name: Jaquelina C.

Additional Author: Burrelli

: Joan S.

Publisher: NSF

Publisher Location: Washington, DC

Publication Date: 2012, Mar

Page Numbers: 1-6

Publication Title: InfoBrief NCES: National Center for Science and Engineering Statistics
Source: NSF
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Employment](#) [Cultural Influences](#) » [Gender Diversity](#)

Division of Labor in Two-Earner Homes: Task Accomplishment versus Household Management as Critical Variables in Perceptions about Family Work

Resource Title: Division of Labor in Two-Earner Homes: Task Accomplishment versus Household Management as Critical Variables in Perceptions about Family Work

Description/Annotation: This journal article studies housework and perceptions of fairness and conflict when related to gender responsibility for different tasks. Data was collected from 359 married women employed full time. Housework was separated into three areas: caring for the family, caring for the home, and transactional matters, and these three areas were tracked by either task allocation or allocation of management. The division of tasks related to traditional "gender roles" were discussed, and perceptions of fairness were addressed. Findings are not surprising related to who does what in taking care of the household, but other emotional factors help explain reasons why women continue to accept unfairness in this area.

Author Last Name: Mederer
Author First Name: Helen J.
Publisher: National Council on Family Relations
Publisher Location: Minneapolis, MN
Publication Date: 1993, Feb
Page Numbers: 133-145
Publication Title: Journal of Marriage and the Family
Volume: 55
Issue: 1

Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Do Babies Matter in Science?

Resource Title: Do Babies Matter in Science?
Description/Annotation: Author asserts that using a "baby-gap test" for female Ph.D.'s is a truer measure of gender equity than merely measuring academic success. Measure takes into account both the gap in professional outcomes for women with children compared with men and the gap in family formation for academically successful women.
Author Last Name: Mason
Author First Name: Mary Ann
Publisher: The Chronicle of Higher Education
Publisher Location: Washington, D.C.
Publication Date: 2008, Oct 17
Publication Title: The Chronicle of Higher Education
Source: The Chronicle of Higher Education
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Do Female and Male Role Models Who Embody STEM Stereotypes Hinder Women's Anticipated Success in STEM?

Resource Title: Do Female and Male Role Models Who Embody STEM Stereotypes Hinder Women's Anticipated Success in STEM?

Description/Annotation: This article tests the assumption that female role models improve women's beliefs that they can be successful in STEM. Two experiments varied role model gender and whether role models embody computer science stereotypes. Results indicated that role model gender had no effect on success beliefs. However, women who interacted with nonstereotypical role models believed they would be more successful in computer science than those who interacted with stereotypical role models.

Author Last Name: Cheryan

Author First Name: Sapna

Additional Author: Siy

: John Oliver

Additional Author: Vichayapai

: Marissa

Additional Author: Drury

: Benjamin J.

Additional Author: Kim

: Saenam

Publisher: Sage

Publication Date: 2011, Nov

Page Numbers: 656-664

Publication Title: Social Psychological and Personality Science

Volume: 2

Issue: 6

Source: SAGE Journals

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Mentoring](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Do Internalized Feminine Norms Depress Girls' STEM Attitudes & Participation?

Resource Title: Do Internalized Feminine Norms Depress Girls' STEM Attitudes & Participation?

Description/Annotation: STEM research has done important work in addressing external and interpersonal barriers to girls' increased STEM participation, such as lack of role models, stereotype threat, parental attitudes, and teacher bias. Yet less well explored are girls' own attitudes themselves. Studies suggest that at least part of the reason girls who get good STEM grades and report enjoying STEM subjects in elementary school begin to exit the "leaky pipeline" in adolescence and early teens is feminine norms. Specifically, as girls enter the "gender intensification," they increasingly perceive they must make a choice between being (and being seen as) feminine, and being good at STEM; and STEM loses. This paper explores the arguments, studies, and implications for the field, as well as results from focus groups with young women. It is accompanied by an online research clearinghouse at truechild.org/STEMresearch

Author Last Name: Wilchins

Author First Name: Riki

Resource Type Categories: [Articles/Reports](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#)

Do Scientists Help People? Beliefs About Scientists and the Influence of Prosocial Context on Girls' Attitudes Towards Physics

Resource Title: Do Scientists Help People? Beliefs About Scientists and the Influence of Prosocial Context on Girls' Attitudes Towards Physics

Description/Annotation: This paper discusses a study examining elementary school girls' beliefs about the work of scientists and how presenting information about a prosocial aspect of physics would influence their attitudes toward that information. The results revealed that relatively few participants generated prosocial responses to the open-ended question, and the helping context story was rated as significantly more likable than the discovery context. Suggestions are given for educators to include prosocial aspects of science in their teaching.

Author Last Name: Yanowitz

Author First Name: Karen L.

Publication Date: 2004
Page Numbers: 393-399
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Doctorate Recipients from U.S. Universities: 2012

Resource Title: Doctorate Recipients from U.S. Universities: 2012
Description/Annotation: NSF NCSES report based on annual census via Survey of Earned Doctorates (SED) of all individuals who receive a research doctorate from a U.S. academic institution in a given academic year. The survey is designed to obtain data on the numbers and characteristics of individuals receiving research doctorates from U.S. institutions, and the results are used to assess trends in doctorate production. This information is vital for educational and labor-force planners in the federal government and in academia.
Author Last Name: NCSES
Publisher: National Center for Science and Engineering Statistics (NCSES)
Publisher Location: Arlington, VA
Publication Date: 2013, Dec
Source: NCSES
Source Type: Interactive report, excel and pdf data tables

Resource Type Categories: [Database/Tool](#) » [Database Data and Statistics](#) » [Reports](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

Doctorate Recipients from U.S. Universities: Summary Report 2007–08

Resource Title: Doctorate Recipients from U.S. Universities: Summary Report 2007–08

Description/Annotation: U.S. government series report based on data collected by the Survey of Earned Doctorates (SED) from 2007 and 2008. Trends for doctorate recipients are reported by the broad fields in which doctorate recipients earn their degrees, and by sex, race/ethnicity, and citizenship. Cross-sectional data on the educational pathways that doctorate recipients take to the research doctorate are reported for the 2008 cohort, as well as data on the average amount of time taken to complete the doctoral degree, doctorate recipients reporting disabilities, sources of financial support during graduate school, and the postgraduation status and plans of doctorate recipients.

Author Last Name: NSF

Publisher: National Science Foundation, Division of Science Resources Statistics

Publisher Location: Arlington, VA

Publication Date: 2009, Dec

Page Numbers: 322

Publication Title: NSF 10-309

Source: NSF

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Does a Truck Driver See What a Nurse Sees? The Effects of Occupation Type on Perceptions of Sexual Harassment

Resource Title: Does a Truck Driver See What a Nurse Sees? The Effects of Occupation Type on Perceptions of Sexual Harassment

Description/Annotation: Study measuring perceptions of men and women watching videos as to presence of sexual harassment. Results reported by men's traditional, women's traditional and neutral occupation types of participants.

Author Last Name: Maeder
Author First Name: Evelyn M.
Additional Author: Weiner
:
Additional Author: Winter
:
Publisher: Springer Netherlands
Publisher Location: Rotterdam, Netherlands
Publication Date: 2007, Jun
Page Numbers: 1573-2762
Publication Title: Sex Roles
Volume: 56
Issue: 11-12
Source: SpringerLink
Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

Does Gender Affect a Scientist's Research Output in Revolutionary Ecology?

Resource Title: Does Gender Affect a Scientist's Research Output in Revolutionary Ecology?

Description/Annotation: To examine how an author's gender influences his or her research output, the authors analyzed more than 900 published articles in nine leading scientific journals in the field of evolutionary ecology. Women were strongly underrepresented in all countries, but this bias is decreasing. Men and women differed significantly in their fields of research, with women preferentially conducting projects on behavior rather than evolution or ecology.

Author Last Name: Bonnet
Author First Name: Xavier

Additional Author: Shine
:
Additional Author: Lourdais
:
Publication Date: 2004
Page Numbers: 353-360
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Professional Development](#)

Does Gender Affect Student Perception of Engineering Courses in a Common First Year Program?

Resource Title: Does Gender Affect Student Perception of Engineering Courses in a Common First Year Program?

Description/Annotation: In the fall of 2000, Michigan Technological University started a common first year program for all engineering students. In conjunction with the student course evaluations, the students answered ten additional questions. These questions were used to evaluate their perception of the first year engineering courses. When the data were analyzed, there were significant differences between the male and female students.

Author Last Name: Hein
Author First Name: Gretchen L.
Additional Author: Hamlin
:
Brett H.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception

Does Marital Status Make a Difference?: Housework Among Married and Cohabiting Men and Women

Resource Title: Does Marital Status Make a Difference?: Housework Among Married and Cohabiting Men and Women

Description/Annotation: This 20-page research report discusses differences in the household division of labor between married and cohabiting men and women. The researchers used data from the 1987 National Survey of Families and Households to evaluate difference in the amount of housework with respect to gender and marital status. Ultimately, the study revealed that men's household labor did not change, but that women's household labor increased when married.

Author Last Name: Shelton
Author First Name: Beth Anne
Additional Author: John
: Daphne
Publisher: SAGE Publications
Publisher Location: Thousand Oaks, CA
Publication Date: 1993
Page Numbers: 401-420
Publication Title: Journal of Family Issues
Volume: 14
Source: Sage
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#)

Does Physics Teaching Affect Gender-Based Science Anxiety?

Resource Title: Does Physics Teaching Affect Gender-Based Science Anxiety?

Description/Annotation: This paper presents the results of a study designed to measure the level of science anxiety in students enrolled in physics courses at Loyola University Chicago. The paper aims: (1) to determine the factors contributing to science anxiety; in particular, to ascertain whether the leading factors identified in an earlier study have remained constant over time, and (2) to investigate whether science anxiety was affected by a semester of introductory physics.

Author Last Name: Udo

Author First Name: M.K.

Additional Author: Ramsey

: G.P.

Additional Author: Reynolds-Alpert

: S.

Additional Author: Mallow

: J.V.

Publication Date: 2001, Sep

Page Numbers: 237-247

Publication Title: Journal of Science Education and Technology

Volume: 10

Issue: 3

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Dorm for Women Science, Math Majors Opens on Rutgers Campus

Resource Title:	Dorm for Women Science, Math Majors Opens on Rutgers Campus
Description/Annotation:	A short report on a new dormitory that opened at Rutgers designed to cater to the need of women students in mathematics, engineering, and science.
Author Last Name:	Stinson
Author First Name:	Stephen
Publication Date:	1990
Page Numbers:	26-27
Publication Title:	Chemical and Engineering News
Volume:	68
Issue:	8
Source:	ERIC
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#)[Educational Factors](#)

Dot Diva

Resource Title:	Dot Diva
Description/Annotation:	Dot Diva is a nonprofit whose mission it to create an exciting and positive image of computing for high school girls. The Dot Diva website contains tools for educators and parents to inspire teen girls to consider computing as a career, including free downloadable brochures and posters, customizable powerpoint presentations, and parents' flyers to encourage daughters towards a computing career. The website also provides information to help high school girls learn more about computing, including high school classes, afterschool opportunities, computer camps, and college programs.
Web site Link:	Link to Resource

More: The Dot Diva/New Image for Computing (NIC) initiative is sponsored by WBGH Educational Foundation, the Association for Computing Machinery (ACM), and the National Center for Women & Information Technology (NCWIT).

Resources: The Dot Diva website contains several resources to provide high school girls, parents and educators with information about computing careers, including:

- [Profiles](#) of girls who are currently using computing in an exciting career
- [Become a Dot Diva](#) - a list of recommended links and resources
- [Educators and Parents](#) - tools to inspire and encourage girls to consider a career in computing
- [Webisode](#) featuring two girls who work as programmers at a video game company
- [Blog](#)- platform to discuss females in computing

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: Funding is provided by the National Science Foundation (NSF) and Google. Dot Diva/NIC is run by a project team, steering committee and board of advisors.

Last Update Date: July 23, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Dr. Joan's Mentoring Book: Straight Talk About Taking Charge of Your Career

Resource Title: Dr. Joan's Mentoring Book: Straight Talk About Taking Charge of Your Career

Description/Annotation: Dr. Joan Mitchell, a 32-year career scientist for IBM, compiles a career's worth of mentoring advice in this how-to book on mentoring. While it is largely focused on the mentee, it holds value for mentors as well. Easy to read and easy to apply her lessons and advice. For industry and the workplace.

Author Last Name: Mitchell

Author First Name: Joan L.

Additional Author: Mitchell
:
Nancy W. (ed.)
Publisher: Mitchell & Mitchell, LLC
Publisher Location: Las Vegas, NV
Publication Date: 2007, May
Page Numbers: 1-227
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)
**Dual Career Academic Couples: What Universities
Need to Know**

Resource Title: Dual Career Academic Couples: What Universities Need to Know
Description/Annotation: An important research study done on dual-career academic couples, a topic upon which not very much has been written. Since over 70% of faculty are in dual-career relationships, and 36% of faculty are in a relationship with another academic, it is a very relevant topic in hiring and retaining faculty at U.S. universities. Dual academic career couples are strong among women scientists. Hiring practices are examined at major research universities, and the practice of "couple hiring" is explored, along with attitudes from faculty and universities related to couple hiring. Diversity is also researched as a benefit of couple hiring. For both sides of academia, the faculty and the universities.
Author Last Name: Schiebinger
Author First Name: Londa
Additional Author: Henderson
:
Andrea D.
Additional Author: Gilmartin
:
Shannon K.
Publisher: Michelle R. Clayman Institute for Gender Research
Publisher Location: Stanford, CA

Publication Date: 2008, Aug
Page Numbers: 1-108
Source: Stanford University
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Retention](#)

E-Mentoring for Women Graduate Students in Engineering and Science

Resource Title: E-Mentoring for Women Graduate Students in Engineering and Science

Description/Annotation: This paper explores the benefits and outcomes of E-mentoring specifically for Master's and Ph.D. students in engineering, providing and discussing data from participant surveys. In response to numerous requests from both students and faculty to support academic E-mentoring, and with support from a grant from the National Science Foundation, MentorNet in 2003 began a pilot program for MentorNet ACE (Academic Career E-Mentoring). This new project focuses on providing One-on-One e-mentoring services for graduate students, matching them with tenured faculty as mentors, and will eventually experiment with offering such services to tenure track faculty members seeking or pursuing academic science and engineering careers. The paper also describes initial engagement with this new program, and offer preliminary findings about the potential benefits to be gained from e-mentoring for those pursuing academic careers. Funded by NSF GSE under award #0001388 and NSF ADVANCE under award #0318510.

Author Last Name: Dockter
Author First Name: Jennifer
Additional Author: Muller
:
Publication Date: 2004
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring Publications by Funder](#) » [NSF-HRD-ADVANCE Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

E-Week Girl Day

Resource Title: E-Week Girl Day

Description/Annotation: Contrasting outreach programs for Engineering-Week Girl Day from University of Texas at Austin, University of Maryland at College Park and Rockwell Collins. Each speaker describes program basics, recruiting participants and volunteers, impact data and lessons learned. Login to the WEPAN Professional Community to access the "Introduce a Girl to Engineering Day" interest group with additional resources.

Author Last Name: Berry

Author First Name: Tricia

Additional Author: Smith

: Paige

Additional Author: Becker

: Jenny

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2009, Nov

Source: WEPAN

Source Type: Powerpoint video/audio

Resource Type Categories: [Webinar/Video](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Early and Sustained Gender Equity Programs Enrich Pipeline of Female Engineers

Resource Title: Early and Sustained Gender Equity Programs Enrich Pipeline of Female Engineers

Description/Annotation: This paper focuses on a specific gender equity-based program launched in Hawaii by the Women in Technology (WIT) Project leadership in 2000 and its successful evolution over the next four years. The Environmental And Spatial Technology (EAST) Project was selected based upon its cost effectiveness, ease of duplication, the collaboration of community, industry and educators, efficacy as a program model and the potential for institutionalization. The purpose of this paper is to share WIT's experiences with this initiative as a possible best practices model for other program developers.

Author Last Name: Wilkins

Author First Name: Leslie

Additional Author: Yap

: Isla

Additional Author: Hom

: Sheryl

Additional Author: Andrews

: Christine L.

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Professional Development](#)

Early determinants of women in the IT workforce: a model of girls' career choices

Resource Title: Early determinants of women in the IT workforce: a model of girls' career choices

Description/Annotation: Review of literature evaluating factors affecting girls choosing a career in IT. Considers social factors such as parents, structural factors such as teacher influence and individual choice.

Author Last Name: Adya

Author First Name: Monica

Additional Author: Kaiser

: Kate M.

Publisher: Emerald Group Publishing

Publication Date: 2005

Page Numbers: 230-259

Publication Title: Information Technology and People

Volume: 18

Issue: 3

Source: Marquette University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Economic Dependency, Gender, and the Division of Labor at Home

Resource Title: Economic Dependency, Gender, and the Division of Labor at Home

Description/Annotation: Study of imbalance in division of housework among married couples. Findings indicate that the more a man relies on his wife for economic support, the less housework he does.

Author Last Name: Brines

Author First Name: Julie

Publisher: The University of Chicago Press

Publication Date: 1994, Nov

Page Numbers: 652-688

Publication Title: The American Journal of Sociology
Volume: 100
Issue: 3
Source: JSTOR
Source Type: Abstract, Partial text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Economic Security: Expanding Women's Participation in US Science

Resource Title: Economic Security: Expanding Women's Participation in US Science

Description/Annotation: A paper that argues that the primary benefit of getting more women into science is improving US economic security. Headers say: Problem: Decline in US Technological Capabilities, Diagnosis: Scientist-Engineer-Entrepreneur Gap, Changing Trends: Men Leaving, Women Entering, Finding the Leaks, Solutions: Integrate Women into Science, Policy Recommendations, Grassroots Solutions. Excellent short statement of issues.

Author Last Name: Rosser
Author First Name: Sue V.
Additional Author: Taylor
: Mark Zachary
Publisher: Global Education
Publication Date: 2008, Fall
Publication Title: Harvard International Review
Volume: 30
Issue: 3
Source: Harvard University
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Editorial: Gifted females in mathematics, the natural sciences and technology

Resource Title:	Editorial: Gifted females in mathematics, the natural sciences and technology
Description/Annotation:	This editorial discusses the leveling of gender differences in mathematics, science, and technology and how best to motivate girls to use their talents in appropriate career fields, once they have already demonstrated achievement levels equivalent to boys.
Author Last Name:	Stoeger
Author First Name:	Heldrun
Publication Date:	2004
Page Numbers:	3-5
Publication Title:	High Ability Studies
Volume:	15
Issue:	1
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Edna the Engineer: Who Gets to be a Scientist?

Resource Title:	Edna the Engineer: Who Gets to be a Scientist?
Description/Annotation:	This 28-minute radio interview is the second in a series on STEM education. The clip features an interview of leaders of an outreach project at William and Mary's Virginia Institute of Marine Science as they discuss barriers keeping US girls out of laboratories. The

radio interview also features the WWII history of Edna the engineer.

Author Last Name: With Good Reason Radio
Publisher: Virginia Foundation of the Humanities
Publisher Location: Charlottesville, VA
Publication Date: 2013, Feb
Source: With Good Reason Radio
Source Type: Audio

Resource Type Categories: Interviews Webinar/Video Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Educating Engineers: Designing for the Future of the Field

Resource Title: Educating Engineers: Designing for the Future of the Field
Description/Annotation: Written for administrators and faculty in engineering schools and programs, *Educating Engineers* addresses new approaches in teaching and learning for "new-century engineers" including co-op programs that integrate classroom learning with hands-on experience. This book is part of a series on professional education by The Carnegie Foundation for the Advancement of Teaching that examines how the members of different professions are educated for their responsibilities in the communities they serve.

Author Last Name: Sheppard
Author First Name: Sheri D.
Additional Author: Macatangay
: Kelly
Additional Author: Colby
: Ann
Additional Author: Sullivan
: William M.
Additional Author: Shulman

: Lee S. (forward by)
Publisher: Jossey Bass
Publisher Location: San Francisco, CA
Publication Date: 2008, Dec
Page Numbers: 272
Source: Carnegie Foundation
Source Type: Abstract, Available for Sale

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Educating the Engineer of 2020: Adapting Engineering Education to the New Century

Resource Title: Educating the Engineer of 2020: Adapting Engineering Education to the New Century

Description/Annotation: Educating the Engineer of 2020 is grounded by the observations, questions, and conclusions presented in the best-selling book *The Engineer of 2020: Visions of Engineering in the New Century*. This new book offers recommendations on how to enrich and broaden engineering education so graduates are better prepared to work in a constantly changing global economy. It notes the importance of improving recruitment and retention of students and making the learning experience more meaningful to them. It also discusses the value of considering changes in engineering education in the broader context of enhancing the status of the engineering profession and improving the public understanding of engineering. Although certain basics of engineering will not change in the future, the explosion of knowledge, the global economy, and the way engineers work will reflect an ongoing evolution. If the United States is to maintain its economic leadership and be able to sustain its share of high-technology jobs, it must prepare for this wave of change.

Author Last Name: NAE
Publisher: National Academies Press, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2005

Page Numbers: 208
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: Book Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Education and Occupational Sex Segregation: The Decision to Major in Engineering

Resource Title: Education and Occupational Sex Segregation: The Decision to Major in Engineering

Description/Annotation: This 24 page report uses data from a sample of students from 1980 (high school and beyond) to study sex differences in the choice of engineering in college, and finds that education policy that tries to increase the number of women in engineering by (1) increasing math and science preparation and (2) portraying engineering as a profession consistent with being a wife and raising a family would have a slight to moderate effect on the number of women engineers. Instead, addressing the perception held during high school that engineering is a field of study associated with men would have a more significant effect.

Author Last Name: Frehill
Author First Name: Lisa
Publication Date: 1997, Spring
Page Numbers: 225-249
Publication Title: The Sociological Quarterly
Volume: 38
Issue: 2
Database Name: Wiley InterScience
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Education of Women in Engineering Schools in Jordan: An Empirical Perspective

Resource Title:	Education of Women in Engineering Schools in Jordan: An Empirical Perspective
Description/Annotation:	This paper addresses the factors that limit the enrollment of women in graduate engineering schools in Jordan. Factors include cultural and economical reasons, labor market outlooks, status and prestige. Authors examine the interrelationship among these factors, the positive impacts on the economy and on some sectors of the engineering industry in general.
Author Last Name:	Gammoh
Author First Name:	Diala
Additional Author:	Mehrabian
:	Ali
Additional Author:	Ducharme
:	Alfred
Publication Date:	2008
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Educational Trends of Minority Women in the USA: The Untapped Resource

Resource Title:	Educational Trends of Minority Women in the USA: The Untapped Resource
Description/Annotation:	This paper discusses the untapped resource in U.S. engineering: minority women. The paper addresses the current U.S. population

and education figures, with emphasis on women; the trend of some minority groups to obtain higher percentages of both bachelor and engineering degrees over other minority groups; the next-generation of college students; the projected future populations; and some possible solutions to increasing the numbers of women minority students to benefit engineering.

Author Last Name: Kaplan
Author First Name: Kathleen M.
Additional Author: Kaplan
:
John J.
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Educational Use of E-Mentoring to Encourage Women into Science and Engineering

Resource Title: Educational Use of E-Mentoring to Encourage Women into Science and Engineering

Description/Annotation: Pilot program sponsored by Korean government in 2001 to encourage females in science and engineering via an e-mentoring program. Positive response to e-mentoring from those who participated, but low participation rate.

Author Last Name: Lee
Author First Name: Heisook
Additional Author: Noh
:
Sunsook
Publisher: Springer Berlin/Heidelberg
Publisher Location: Berlin/Heidelberg, Germany

Publication Date: 2003
Page Numbers: 170
Publication Title: Web and Communication Technologies and Internet-Related Social Issues - HIS 2003
Volume: 2713/2003
Source: SpringerLink
Source Type: Abstract, Partial text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Effect of Gender on Computer Use and Attitudes of College Seniors

Resource Title: Effect of Gender on Computer Use and Attitudes of College Seniors

Description/Annotation: This study examines sex differences among computer attitudes and levels of computer use. All students at one university were issued identical laptop computers and used them extensively for 4 years. Self-reported computer use was examined for effects of gender. Attitudes toward computers were also assessed and compared for male and female students. The results indicated that when the technological environment was institutionally equalized for male and female students, many traditional findings of gender differences were not evident.

Author Last Name: McCoy
Author First Name: Leah P.
Additional Author: Heafner
: Tina L.

Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 1
Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Effecting Institutional Transformation to Improve Climate for Women STEM Faculty: the UIC NSF ADVANCE IT Experience

Resource Title: Effecting Institutional Transformation to Improve Climate for Women STEM Faculty: the UIC NSF ADVANCE IT Experience

Description/Annotation: This paper from the 2012 WEPAN National Conference describes successes of UIC's NSF ADVANCE program in removing structural barriers to women's participation in academic STEM and analyzes the factors enabling changes through Sturm's Architecture of Inclusion framework. This paper provides a conceptual framework for other institutions to optimize their efforts to improve climate for STEM women.

Author Last Name: Tam

Author First Name: Mo-Yin

Additional Author: Khare

: Manorama

Additional Author: Wichelecki

: Jana

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Effective Policies and Programs for Retention and Advancement of Women in Academia

Resource Title:	Effective Policies and Programs for Retention and Advancement of Women in Academia
Description/Annotation:	This 25-page report highlights effective policies and programs in facilitating gender equity in recruiting, retaining and advancing women faculty. Competitive universities have recognized that eliminating the chilly climate for women, and effective implementation of family-responsive policies gives them an edge in attracting and retaining talented women faculty. Particularly in this period of sharply declining resources, effective programs to control gender bias and address work-life balance needs can improve faculty satisfaction and reduce costly attrition rates.
Author Last Name:	The Center for WorkLife Law
Publisher:	UC Hastings College of the Law
Publisher Location:	San Francisco, CA
Page Numbers:	1-25
Source:	The Center for WorkLife Law
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Professional Development Educational Factors](#) » [Retention Career Factors](#) » [Retention](#)

Effective Strategies to Change Attitudes toward Female Participation in Science and Technology

Resource Title:	Effective Strategies to Change Attitudes toward Female Participation in Science and Technology
Description/Annotation:	NSF funded study to look at how to change girls' perceptions of STEM careers and how to improve the social acceptance of women in STEM. Study included male and female college freshman. Output of study is reusable instrument to measure attitudes of students (Attitudes Towards Science and technology Scale A-ST).
Author Last Name:	Gokhale

Author First Name: Anu
Additional Author: Machina
: Kenton
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 10
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Effectively Assign Student Groups by Applying Multiple User-prioritized Academic and Demographic Factors Using a New Open Source Program GroupEng

Resource Title: Effectively Assign Student Groups by Applying Multiple User-prioritized Academic and Demographic Factors Using a New Open Source Program GroupEng

Description/Annotation: We created an open-source program, GroupEng, that assigns groups according to guidelines from education research. Guidelines include avoiding isolating women or minorities and assigning multi-disciplinary groups of mixed abilities. The program operates on a set of simple, flexible, faculty defined rules, keeps data local, and ensures “fairness” of group strengths.

Author Last Name: Dimiduk
Author First Name: Thomas
Additional Author: Dimiduk
: Kathryn
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Effectiveness of Challenge-Based Instruction in Biomechanics

Resource Title: Effectiveness of Challenge-Based Instruction in Biomechanics

Description/Annotation: This 14-page paper reports on a study of the effectiveness of challenge-based instruction (CBI) versus traditional lecture in biomechanics courses. According to the study, students performed better on assessments after CBI and slightly preferred this method of instruction versus more traditional lecture.

Author Last Name: Roselli

Author First Name: Robert J.

Additional Author: Brophy

: Sean P.

Publication Date: 2006

Page Numbers: 311-324

Publication Title: Journal of Engineering Education

Volume: 95

Issue: 4

Source: NCUE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Effectiveness of Team-Based STEM Project Learning to Recruit Women High School Students to STEM

Resource Title: Effectiveness of Team-Based STEM Project Learning to Recruit Women High School Students to STEM

Description/Annotation: High School Enterprise (HSE) supports secondary teachers advising student teams on long-term STEM projects. It relies on partnerships among academia, industry, and local team communities. HSE has implications for population groups underrepresented in STEM as the teams attract minority students and women in high proportions – between two and four times that of corresponding STEM participation rates in higher education.

Author Last Name: Kampe

Author First Name: Jean-Celeste M.

Additional Author: Opplinger

: Douglas

Additional Author: Troesch

: Valorie

Additional Author: Warrington

: Robert

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Effects of a College Access Program for Youth Underrepresented in Higher Education: A Randomized Experiment.

Resource Title: Effects of a College Access Program for Youth Underrepresented in Higher Education: A Randomized Experiment.

Description/Annotation: Article describing EXCEL program that encourages underrepresented high school students to enroll in higher education by offering them with scholarships from a sponsoring

university and additional high school activities. Results did not find an increase in enrollment rates, but they did find increased enrollments to the sponsoring university. Findings of interest as recruiting strategy.

Author Last Name: Bergin
Author First Name: David A.
Additional Author: Cooks
: Helen C.
Additional Author: Bergin
: Christi C.
Publication Date: 2007, Sep
Page Numbers: 24
Publication Title: Research in Higher Education
Volume: 48
Issue: 6
Source: SpringerLink
Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Effects of a Women-in-Sciences/Men-in-Humanities Intervention on Taiwanese Adolescents' Attitudes Towards Learning Science

Resource Title: Effects of a Women-in-Sciences/Men-in-Humanities Intervention on Taiwanese Adolescents' Attitudes Towards Learning Science

Description/Annotation: A pretest-posttest control group design was used to investigate the effects of an intervention that focused on the acknowledgement of women in sciences and men in humanities, awareness of academic gender stereotypes, and development of unique selves on student attitudes (interest, confidence, and value) towards learning science.

Author Last Name: Chiu

Author First Name: Mei-Shiu
Publication Date: 2011, Jul
Page Numbers: 322
Publication Title: Asia-Pacific Education Researcher
Volume: 20
Issue: 2
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Effects of an Online Personal Resilience Training Program for Women in STEM Doctoral Programs

Resource Title: Effects of an Online Personal Resilience Training Program for Women in STEM Doctoral Programs

Description/Annotation: Women drop out of science, technology, engineering, or mathematics (STEM) doctoral programs at a higher rate than men, reducing further the diversity of rising experts eligible for faculty and research positions in these fields. Consequently, strategies are needed to improve persistence to doctoral degree completion among women in STEM. The CareerWISE program takes a unique approach by providing individuals online training in key intra- and interpersonal skills believed to influence persistence. This paper describes a randomized controlled trial (RCT) that was performed to evaluate the effectiveness of the CareerWISE intervention. In the RCT, 133 female doctoral students in the physical sciences and engineering utilized the online resource for at least 5 h. Comparisons of the treatment and wait-list control groups yielded strong effect sizes, demonstrating that even a small amount of exposure to the CareerWISE intervention increased the key measures of problem solving, resilience, and coping efficacy, all of which are linked to persistence. Also, comparisons of the wait-list control group before and after exposure to the CareerWISE online resource revealed significant differences for the three key variables in addition to measures of personal

resources, confidence to achieve STEM landmarks, coping styles, and barrier perceptions. The results provide persuasive evidence that students can use and faculty can recommend this resource to attain beneficial outcomes that are associated with psychological well-being and to predict persistence. The study results also reinforce the notion that interventions designed for individuals can supplement institutional and policy strategies to broaden and retain the participation of women in science and engineering careers. Funded by NSF GSE under award #0910384.

Author Last Name: Bekki
Author First Name: Jennifer M.
Additional Author: Smith
: Mary Lee
Additional Author: Bernstein
: Bianca L.
Additional Author: Harrison
: Caroline
Publication Date: 2013
Page Numbers: 17-35
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 19
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Professional Development](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Effects of class size on alternative educational outcomes across disciplines

Resource Title: Effects of class size on alternative educational outcomes across disciplines

Description/Annotation: This 11-page article details a study using self-reported ratings of student learning, instructor recommendations, and course recommendations as the outcome measure to estimate class size effects, doing so across 24 disciplines. Fixed-effects models controlling for heterogeneous courses and instructors reveal that increasing enrollment has negative and significant effects on student satisfaction in Sociology, Political Science, Computer Science and Engineering, and Mechanical and Aerospace Engineering. Educational outcomes in Linguistics, Psychology, Biological Sciences, Chemistry, Math, Physics, Cognitive Sciences, Visual Arts, History, and Philosophy are unaffected by class size. Other disciplines, including Economics, have inconclusive findings. No discipline benefits from increasing enrollment.

Author Last Name: Cheng
Author First Name: Dorothy A.
Publisher: Elsevier
Publication Date: 2011, Oct
Page Numbers: 980-990
Publication Title: Economics of Education Review
Volume: 30
Issue: 5
Source: Science Direct
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Effects of Gender on Engineering Career Commitment

Resource Title: Effects of Gender on Engineering Career Commitment
Description/Annotation: This study examined the effect of gender on career commitment, success, satisfaction, and involvement in engineering, and the effect of personality and work environment on these variables. Alumni from an engineering school in the northeastern United States were surveyed. Women's commitment scores were lower than men's when controlled for other variables, including

satisfaction and involvement. Men had longer tenure as engineers than women, even when controlled for year of graduation, professional engineering status, and number of children. Women did not leave engineering in different proportions than men, but they did earn significantly less despite controlling for year of graduation and number of hours worked weekly. Some gender differences in workplace experience were also found, including having colleagues act protectively, being mistaken for secretaries, and seeing men progress faster in their careers than equally qualified women.

Author Last Name: Barker
Author First Name: Anne M.
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Effects of Learning about Gender Discrimination on Adolescent Girls' Attitudes Toward and Interest in Science

Resource Title: Effects of Learning about Gender Discrimination on Adolescent Girls' Attitudes Toward and Interest in Science

Description/Annotation: To examine the consequences of learning about gender-based occupational discrimination, adolescent girls were randomly assigned to either (a) a standard intervention program aimed at increasing girls' interest in science or (b) a nearly identical program that included information about gender discrimination. Girls' interest in, and attitudes toward, science were assessed using a pre/post design.

Author Last Name: Weisgram

Author First Name: Erica S.
Additional Author: Bigler
: Rebecca S.
Publication Date: 2007, Sep
Page Numbers: 262-269
Publication Title: Psychology of Women Quarterly
Volume: 31
Issue: 3
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Effects of single-gender mathematics classrooms on self-perception of mathematical ability and post secondary engineering paths: an Australian case study

Resource Title: Effects of single-gender mathematics classrooms on self-perception of mathematical ability and post secondary engineering paths: an Australian case study

Description/Annotation: This study focused on a population of female engineering students, probing the influences of their secondary school experience on their choice to pursue an engineering course of study at university. The study examined a sample of Australian engineering students enrolled at the University of Technology, Sydney (UTS). Demographic statistics show that 40% of UTS' female engineering student population attended a single-gender secondary school, indicating a potential influence of school type (single-gender) on engineering enrollment patterns.

Author Last Name: Tully
Author First Name: D.
Additional Author: Jacobs
: B.

Publication Date: 2010, Aug
Page Numbers: 455-467
Publication Title: European Journal of Engineering Education
Volume: 35
Issue: 4
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Effects of Small-Group Learning on Undergraduates in Science, Mathematics, Engineering, and Technology: A Meta-Analysis

Resource Title: Effects of Small-Group Learning on Undergraduates in Science, Mathematics, Engineering, and Technology: A Meta-Analysis

Description/Annotation: This 30-page research review paper reports on a meta-analysis of research reports on the topic of small-group learning at an undergraduate level in the fields of science, mathematics, engineering, and technology. The paper introduces the orienting conceptual framework for the research, that small-group learning has motivational, affective, and cognitive effects on student achievement. Different forms of small-group learning are discussed and evaluated, followed by a discussion of the research questions for the analysis. Inclusion criteria, measurement of effect, and tests for moderators were discussed. Ultimately, the authors found that small-group learning had significant positive effects on students' achievement, persistence, and attitudes.

Author Last Name: Springer
Author First Name: Leonard
Additional Author: Stanne
:
Additional Author: Mary Elizabeth Donovan

: Samuel S.
Publisher: SAGE Publications
Publisher Location: Thousand Oaks, CA
Publication Date: 1999
Page Numbers: 21-51
Publication Title: Review of Educational Research
Volume: 69
Issue: 1
Source: WCER
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

eGFI

Resource Title: eGFI

Description/Annotation: Sponsored by the American Society for Engineering Education (ASEE), eGFI is committed to promoting and enhancing efforts to improve K-12 STEM education by providing classroom resources for teachers and advice for students.

Web site Link: [Link to Resource](#)

More: eGFI came from Engineering, Go For It!, the historical name for the eGFI magazine.

Resources: eGFI has an interactive website, newsletter for teachers and magazine.

The website includes:

- Resources for teachers: lesson plans, class activities, outreach, web resources
- Engineer Your Path:
 - Advice and strategies from current engineering students on how to get into the engineering program of your choice

- Videos enabling you to "meet a student"
- "On the job" has narratives and videos from eGFI sponsors on engineering roles at their organizations
- Online magazine
- Online Store

Site Access Details: This site is publicly accessible.

Partners and Funding: Corporate Partners Auto Desk, Dassault Systems, NCEES, National Instruments, and NDEP.

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

ELATE at Drexel

Resource Title: ELATE at Drexel

Description/Annotation: ELATE at Drexel® is a national leadership development program designed to advance senior women faculty in academic engineering, computer science, and related fields into effective institutional leadership roles within their schools and universities.

Web site Link: [Link to Resource](#)

More: ELATE is an intensive full-year, part-time fellowship program modeled on the highly successful [ELAM® program](#) for women in medicine, dentistry and public health, and tailored to the needs of faculty women in engineering and technology. Three in-residence sessions of 4-6 days each are used to enhance knowledge and skills in business practices of higher education, project management with diverse stakeholders, and effective communication in a variety of leadership platforms. Sessions are supported by:

- Online readings and assignments.
- Monthly conference calls with learning communities and senior advisors.
- Interviews with key officials at the home institution.
- Institutional Action Project development.
- Mentoring to apply new skills to work at the home institution.

Contact Name: Diane Magrane

Contact E-mail: diane.magrane@drexelmed.edu

Electronic Communities: A Forum for Supporting Women Professionals and Students in Technical and Scientific Fields

Resource Title:	Electronic Communities: A Forum for Supporting Women Professionals and Students in Technical and Scientific Fields
Description/Annotation:	A 15-page report that includes discussion lists from MentorNet (a national mentoring website for women in engineering and science) to provide a case study of successful use of electronic communication to create a community for women. Describes and analyzes the lists and the created community in terms of their longevity and ability to provide safe environment for students and professionals to interact. This report is important because it offers a successful case study of an electronic community to promote women's success in science and engineering.
Author Last Name:	Boyle Single
Author First Name:	Peg
Additional Author:	Muller
:	Carol B.
Additional Author:	Cunningham
:	Christine M.
Additional Author:	Single
:	Richard M.
Publication Date:	2000
Page Numbers:	115-129
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	6
Source:	Begell House
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Organizational Culture](#)

Electronic Mentoring: Supporting Women Engineering and Science Students in the Crucial Early Years of College

Resource Title:	Electronic Mentoring: Supporting Women Engineering and Science Students in the Crucial Early Years of College
Description/Annotation:	This paper focuses on MentorNet's efforts to support women engineering, science, math, and technology students during the crucial first year of undergraduate education. Authors review the current situation of women students in engineering, identifying barriers and obstacles to their persistence in engineering majors. Authors also introduce MentorNet, the Electronic Industrial Mentoring Network for Women in Engineering and Science, a large-scale project to support women studying engineering and related sciences. Finally, authors present quantitative and qualitative results of year-end program evaluations focusing on both overall program results, and particularly on, the experiences of the first year undergraduate students.
Author Last Name:	Single
Author First Name:	Peg Boyle
Additional Author:	Muller
:	Carol B.
Additional Author:	Carlsen
:	William S.
Additional Author:	Cunningham
:	Christine M.
Publication Date:	2001
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#) [Educational Factors](#) » [Retention](#)

Elementary girls' science reading at home and school

Resource Title: Elementary girls' science reading at home and school

Description/Annotation: Although reading is a critical part of science and science learning, it is no longer a part of many children's elementary science instruction. This is of concern because girls often develop strong identities as readers, but do not develop scientific identities with ease. This study investigates girls' science reading to know (1) if science books were available to girls in homes and classrooms, (2) if girls were choosing to read them, and (3) what influences their choices. Forty-five third-grade girls, 29 of their families, and three of their teachers were interviewed to ascertain girls' preferences among various book genres, as well as to learn the ways in which families and teachers influence the choices girls make. Results indicate that girls had access to science books at school, and teachers had strategies to encourage reading them. At home, parents encouraged reading, but were generally less directive than teachers as to what the girls read, and underestimated their daughters' science-related interests. The families studied rely largely on major bookstores as their primary source of books. Findings suggest we need to understand better the way gender influences girls' engagement with science in a variety of contexts, particularly those in which girls exercise choice. Funded by NSF GSE under award #0217144.

Author Last Name: Ford

Author First Name: Danielle J.

Additional Author: Brickhouse

: Nancy W.

Additional Author: Lottero-Perdue

: Pamela

Additional Author: Kittleson

: Julie

Publication Date: 2006

Page Numbers: 270-288

Publication Title: Science Education

Volume: 90

Issue: 2

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Elementary School Students' Perceptions of the New Science and Technology Curriculum by Gender

Resource Title: Elementary School Students' Perceptions of the New Science and Technology Curriculum by Gender

Description/Annotation: The purpose of this study is to explore students' perceptions of science and technology classes by gender in a Turkish elementary school context. Data for the study were collected through a 20-item, five-point Likert scale from a total of 1558 sixth-grade students at 20 different elementary schools in Turkey. Findings revealed that male students considered learning science and technology more necessary and important than female students did. They also found learning environment and teaching strategies more sufficient and effective than females did.

Author Last Name: Gomleksiz

Author First Name: Mehmet Nuri

Publication Date: 2012

Page Numbers: 116-126

Publication Title: Educational Technology & Society

Volume: 15

Issue: 1

Source: IFETS

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Elementary Teachers' Understandings of Engineering and Technology

Resource Title: Elementary Teachers' Understandings of Engineering and Technology

Description/Annotation: This research paper, from proceedings of the 2006 American Society for Engineering Education (ASEE) Annual Conference & Exposition, investigates elementary school teachers' conceptions of the fields of engineering and technology. According to the report, 106 elementary teachers residing in Massachusetts were surveyed and results indicate that teachers have an overly broad idea of what engineers do. The full report is available in PDF format.

Author Last Name: Lachapelle

Author First Name: Cathy P.

Additional Author: Cunningham

: Christine M.

Additional Author: Lindgren-Streicher

: Anna

Publisher: ASEE

Publisher Location: Washington, DC

Publication Date: 2006, Jun

Publication Title: Proceedings of the 2006 American Society for Engineering Education Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Embedded Solutions for Non-Embedded Experts

Resource Title: Embedded Solutions for Non-Embedded Experts

Description/Annotation: This workshop will demonstrate hardware/software solutions to help educators integrate embedded systems concepts into a variety of educational levels from K thru PhD. An open dialogue will also be held on how industry can better meet needs in this area.

Author Last Name: McComb

Author First Name: Marc

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Embracing the Future: Bioinformatics for High School Women

Resource Title: Embracing the Future: Bioinformatics for High School Women

Description/Annotation: This paper discusses a study in which sixteen high school women participated in a 5-week residential summer program designed to encourage female and minority students to choose careers in scientific fields. Students gained expertise in bioinformatics through problem-based learning in a complex learning environment of content instruction, speakers, labs, and trips. Students additionally mastered a variety of information-searching techniques and discussions with female scientists allowed students to see themselves in similar roles. Summer residential aspects fostered an atmosphere in which students matured in interacting with others and in their views of diversity.

Author Last Name: Zales

Author First Name: Charolotte Rappe

Additional Author: Cronin

: Susan J.

Publication Date: 2005

Page Numbers: 27-44

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal](#)
[Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Emerging High-Tech Areas of Civil Engineering Attract Women

Resource Title: Emerging High-Tech Areas of Civil Engineering Attract Women
Description/Annotation: This article gives the results of a survey given to a group of 9th and 10th grade girls who were participating in a Society of Women Engineers Space Experience Camp, after they had seen a one-hour presentation on civil engineering. The goal was to see if the emerging high-tech aspects of civil engineering portrayed in the presentation would make civil engineering more attractive to women. The survey showed that high school girls' attitudes toward civil engineering could be influenced in a positive way by a 1-h presentation that emphasized the emerging high-tech areas of space construction and construction automation. Recommendations for further intervention measures are made.

Author Last Name: Scott
Author First Name: Wesley
Additional Author: Boles
: Walter
Publication Date: 1996, Jan
Page Numbers: 42-43
Publication Title: Journal of Professional Issues in Engineering Education and Practice
Volume: 122
Issue: 1

Source: ASCE
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Emotion blocks the path to learning under stereotype threat

Resource Title: Emotion blocks the path to learning under stereotype threat

Description/Annotation: Gender-based stereotypes undermine females' performance on challenging math tests, but how do they influence their ability to learn from the errors they make? Females under stereotype threat or non-threat were presented with accuracy feedback after each problem on a GRE-like math test, followed by an optional interactive tutorial that provided step-wise problem-solving instruction. Event-related potentials tracked the initial detection of the negative feedback following errors [feedback related negativity (FRN), P3a], as well as any subsequent sustained attention/arousal to that information [late positive potential (LPP)]. Learning was defined as success in applying tutorial information to correction of initial test errors on a surprise retest 24-h later. Under non-threat conditions, emotional responses to negative feedback did not curtail exploration of the tutor, and the amount of tutor exploration predicted learning success. In the stereotype threat condition, however, greater initial salience of the failure (FRN) predicted less exploration of the tutor, and sustained attention to the negative feedback (LPP) predicted poor learning from what was explored. Thus, under stereotype threat, emotional responses to negative feedback predicted both disengagement from learning and interference with learning attempts. This paper discusses the importance of emotion regulation in successful rebound from failure for stigmatized groups in stereotype-salient environments. Funded by NSF GSE under award #0936769.

Author Last Name: Mangels
Author First Name: Jennifer A.
Additional Author: Good
: Catherine

Additional Author: Whiteman
:
Additional Author: Ronald C. Maniscalco
:
Additional Author: Brian Dweck
:
Additional Author: Carol S.
Publication Date: 2011
Page Numbers: 230-241
Publication Title: Social Cognitive Affective Neuroscience
Volume: 7
Issue: 2
Source: PubMed
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Employed Scientists and Engineers by Field, Employment Sector and Gender, 1991-1999

Resource Title: Employed Scientists and Engineers by Field, Employment Sector and Gender, 1991-1999
Description/Annotation: CPST provided employment statistics by discipline and gender for 1991-1999.
Author Last Name: CPST
Publisher: Commission on Professionals in Science and Technology (CPST)
Publisher Location: Washington, D.C.
Source: Prepared for WEPAN by CPST

Resource Type Categories: [Data and Statistics](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Employment](#) [Cultural Influences](#) » [Gender Diversity](#)

Employing Liberative Pedagogies in Engineering Education

Resource Title:	Employing Liberative Pedagogies in Engineering Education
Description/Annotation:	This 22-page article calls for the application of liberative pedagogical techniques (relating material to students' experiences, decentering Western civilization) within engineering courses. Includes suggestions for application and discussion of limitations of liberative pedagogy in the engineering classroom context.
Author Last Name:	Riley
Author First Name:	Donna
Publisher:	Begell House
Publication Date:	2003
Page Numbers:	137-158
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	9
Issue:	2
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Empowering Women as Leaders: ADVANCE Leadership Programs at a Doctoral STEM-Dominant University

Resource Title:	Empowering Women as Leaders: ADVANCE Leadership Programs at a Doctoral STEM-Dominant University
Description/Annotation:	This paper reports on how leadership programs focusing on women faculty can increase the representation of women in leadership roles across campus at a STEM-dominant institution. By providing multiple strategies to empower women faculty at varying stages of their careers, ADVANCE leadership programs sought to enhance their capabilities and productivity as technical

and administrative leaders and as scholars. The purpose of this paper is to highlight the major elements of the Leadership Development Program implemented at Virginia Tech. First the authors provide a brief overview of the literature addressing women in academic leadership. Next descriptions of the university, ADVANCE program and leadership development initiative are summarized. Then university statistics and women faculty members' own words are used to depict the transformation from an institution with few women leaders to one that has invested in developing a culture of faculty development and success. Finally the authors will provide some conclusions regarding women's leadership programs and opportunities for improvement at the programmatic and institutional levels. Funded by NSF ADVANCE under award #0244916.

Author Last Name: Johnson
Author First Name: Ane
Additional Author: Layne
:
Margaret
Additional Author: Terpenney
:
Janis
Publication Date: 2009
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Professional Development Publications by Funder](#)

Empowering Women Engineers from the Top Down

Resource Title: Empowering Women Engineers from the Top Down
Description/Annotation: A powerpoint presentation given at the International Colloquium on Empowering Women in Engineering and Technology in 2007. The presentation talks about how the quiet revolution at the bottom is not sufficient to make change- change must come from the top of the industry. Examples of why diversity is good in

engineering and in business are given, and models, case studies, and projects are shown as examples of efforts to empower women worldwide in engineering, science, and technology. Valuable for academics, industry, and the workforce on a global level.

Author Last Name: Sengers
Author First Name: Johanna L.
Publisher: International Colloquium on Empowering Women in Engineering and Technology
Publisher Location: Tunis
Publication Date: 2007, Jun
Page Numbers: 1-24
Source: PowerShow
Source Type: Powerpoint presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

Empowering Women Faculty in STEM Fields: An Examination of Historically Black Colleges and Universities

Resource Title: Empowering Women Faculty in STEM Fields: An Examination of Historically Black Colleges and Universities

Description/Annotation: This study examines components of the academic work environment that contribute to science, technology, engineering, and mathematics (STEM) faculty members' perceptions of empowerment in the Historically Black Colleges and Universities (HBCUs) organizational setting. Findings are based on data derived from a national sample of STEM faculty members at HBCUs. Among the work environment variables examined in this study, organizational trust had significant effects on both psychological and structural empowerment for male faculty, and a significant effect on psychological empowerment for women faculty.

Author Last Name: Mack

Author First Name: Kelly M.
Additional Author: Johnson
: Linda R.
Additional Author: Woodson
: Kamilah M.
Additional Author: Henkin
: Alan
Additional Author: Dee
: Jay R.
Publication Date: 2010
Page Numbers: 319-341
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Encouragement Works in Academic Settings (Case Study 1): Increasing Persistence in Computing Through Encouragement

Resource Title: Encouragement Works in Academic Settings (Case Study 1): Increasing Persistence in Computing Through Encouragement

Description/Annotation: This 2-page case study from the National Center for Women & Information Technology (NCWIT) provides examples which illustrate the positive impact a simple encouraging conversation can have on a career. The case study also offers examples of how encouragement works to increase persistence in computing. The case study is available in PDF format.

Author Last Name: Cohoon

Author First Name: J. McGrath
Publisher: National Center for Women & Information Technology (NCWIT)
Publisher Location: Boulder, CO
Publication Date: 2011, Apr
Publication Title: Promising Practices
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Encouragers and Discouragers for Domestic and International Women in Doctoral Programs in Engineering and Computer Science

Resource Title: Encouragers and Discouragers for Domestic and International Women in Doctoral Programs in Engineering and Computer Science

Description/Annotation: This paper highlights issues that have emerged from focus group discussions of domestic and international doctoral women in engineering and computer science. Researchers aim to better understand the role of national and cultural influences on what women experience and how they respond. The authors describe some of the commonalities and differences between domestic and international women with respect to their perceptions of everyday encouragers and discouragers and how they cope with them. In a broader context, authors consider how these experiences may contribute to their intentions to complete their doctoral programs. The article also discusses possible interventions and support that can be given to help retain discouraged female doctoral students who consider leaving their programs. Funded by NSF DRL under award #0634519.

Author Last Name: Anderson-Rowland
Author First Name: Mary R.
Additional Author: Bernstein

: Bianca L.
Additional Author: Russo
: Nancy Felipe
Publication Date: 2007
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-DRL-REESE Career Factors](#) » [Professional Development Publications by Funder Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Encouraging Girl Scouts through a Saturday Workshop

Resource Title: Encouraging Girl Scouts through a Saturday Workshop
Description/Annotation: This 8-page research paper discusses the Girl Scout Engineering Saturday (GSES) Program at the University of Maryland. GSES is a primarily participant funded program developed in November 2002 and piloted in February 200 and reaches out to young women who have the potential to become engineers or scientists. This paper provides program goals, logistics, benefits, and initial evaluative data for GSES.
Author Last Name: Lee
Author First Name: Fran
Additional Author: Smith
: Paige E.
Publisher: University of Maryland
Publisher Location: College Park, MD
Publication Date: 2007
Page Numbers: 1-8
Source: Purdue University, College of Technology
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors](#) » [Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Encouraging Talented Girls in Math and Science: Effects of a Guidance Intervention

Resource Title:	Encouraging Talented Girls in Math and Science: Effects of a Guidance Intervention
Description/Annotation:	This paper discusses an intervention developed for talented at-risk young women that emphasized enhancing career identity and exploration, building science self-efficacy and self-esteem and reducing risky behaviors. Self-esteem, school self-efficacy, and future self-efficacy increased from pre-test to the 3- to 4-month follow-up. Girls significantly increased their seeking information about career and were likely to stay with nontraditional choices.
Author Last Name:	Kerr
Author First Name:	Barbara
Additional Author:	Robinson Kurpius
:	Sharon E.
Publication Date:	2004, Jun
Page Numbers:	85-102
Publication Title:	High Ability Studies
Volume:	15
Issue:	1
Source:	ERIC
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Encouraging Underrepresented Minority and Women Students to Become Interested in Research and to Attain Graduate Degrees

Resource Title:	Encouraging Underrepresented Minority and Women Students to Become Interested in Research and to Attain Graduate Degrees
Description/Annotation:	This paper describes the Collaborative Interdisciplinary Research Community (CIRC) program at Arizona State University, whose goal is to increase the number of both women and minorities seeking a graduate degree in engineering. CIRC informative sessions include guest speakers on how to get involved in an engineering research project, writing a resume to obtain an internship, how to select and apply for graduate school, and getting funding for graduate school, which are all described in this paper. The paper also discusses ASU's Fulton School of Engineering graduate recruitment activities. Funded by NSF SSTEM under award #0123146.
Author Last Name:	Anderson-Rowland
Author First Name:	Mary R.
Additional Author:	Johnson
:	Paul C.
Publication Date:	2004
Publication Title:	ASEE Annual Conference & Exposition
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-DUE-SSTEM Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Energize Your Future

Resource Title:	Energize Your Future
Description/Annotation:	Shell has an energy curriculum and student resources to be used in science and engineering classrooms.
Web site Link:	Link to Resource

Resources:

Site resources include:

- Educator resources - Alternate Energy, Energy Trivia, Energy Today, Calculating Energy, Energizing Your Career, Interactive Activities
- Student resources
- Adventures in Energy - video journey through the energy lifecycle
- Games and Activities - technical trivia, puzzles and interactive games

Site Access Details:

This site is publicly accessible.

Partners and Funding:

Site funded by Shell Corporation, a global group of energy and petrochemicals companies with around 102,000 employees in more than 100 countries and territories.

Last Update Date:

June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors » Curriculum Educational Factors Educational Factors » Faculty Student Interaction Educational Factors » Informal Academic Preparation](#)

Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics

Resource Title:

Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics

Description/Annotation:

2012 Report from the President's Council of Advisors on Science and Technology (PCAST) providing a strategy for improving STEM education during the first two years of college.

Author Last Name:

PCAST

Publisher:

White House, Office of Science and Technology Policy

Publisher Location:

Washington, D.C.

Publication Date:

2010 Feb

Source Type:

Link to full text

Connected Advocates: Projects & Programs » Engineering Inclusive Teaching (EIT) Resource Type Categories: Articles/Reports » US National Reports Topical Categories: Educational Factors » Pedagogy & Instruction Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics

Resource Title:	Engage to Excel: Producing One Million Additional College Graduates with Degrees in Science, Technology, Engineering, and Mathematics
Description/Annotation:	This 14-page report to the President from the President's Council of Advisors on Science and Technology (PCAST) focuses on actions that will influence the quality of STEM education in the first two years of college. The report proposes five overarching recommendations to transform undergraduate STEM education during the transition from high school to college and during the first two years of undergraduate STEM education. The full report is available in PDF format.
Author Last Name:	President's Council of Advisors on Science and Technology (PCAST)
Publisher:	Executive Office of the President
Publisher Location:	Washington, DC
Publication Date:	2012, Feb
Page Numbers:	1-14
Source:	The White House
Source Type:	Full Text

Resource Type Categories: Articles/Reports » US National Reports Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Retention

Engage Woman Engineering and Science Students by Improving Their Spatial Visualization Skills

Resource Title:	Engage Woman Engineering and Science Students by Improving Their Spatial Visualization Skills
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Description/Annotation: Research has shown that students with enhanced spatial visualization skills are more successful in engineering, technology and science. This paper presents an approach to improve woman students' spatial visualization skills. The proposed methodology includes two steps: identifying students who should receive remediation in spatial visualization, and then providing necessary training.

Author Last Name: Dong

Author First Name: Yaomin

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

ENGAGE/ASME Engaging Students in ME - Using Everyday Engineering Examples in the Classroom Webinar PowerPoint Presentation

Resource Title: ENGAGE/ASME Engaging Students in ME - Using Everyday Engineering Examples in the Classroom Webinar PowerPoint Presentation

Description/Annotation: Presented by Eann Patterson, Ph.D. to ASME (American Society of Mechanical Engineers) members, the powerpoint includes valuable results from a pilot study on engineering students, the essential attributes of everyday engineering examples (E3s), and examples of specific activities that can be done in the classroom to illustrate everyday engineering examples, engage students, and help improve their performance.

Author Last Name: Patterson

Author First Name: Eann

Additional Author: Campbell

: Patricia

Publisher: ENGAGE
Publication Date: 2011, April 20
Source: ENGAGE

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

ENGAGE/ASME Engaging Students in ME - Using Everyday Engineering Examples in the Classroom Webinar Recording

Resource Title: ENGAGE/ASME Engaging Students in ME - Using Everyday Engineering Examples in the Classroom Webinar Recording

Description/Annotation: Presented by Eann Patterson, Ph.D. to ASME (American Society of Mechanical Engineers) members, the webinar includes valuable results from a pilot study on engineering students, the essential attributes of everyday engineering examples (E3s), and examples of specific activities that can be done in the classroom to illustrate everyday engineering examples, engage students, and help improve their performance.

Author Last Name: Patterson

Author First Name: Eann

Additional Author: Campbell
:

Publisher: ENGAGE

Publication Date: 2011, Apr 20

Source: ENGAGE

Source Type: Webinar (slides + audio)

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

ENGAGE: Engaging Students in Engineering

Resource Title: ENGAGE: Engaging Students in Engineering

Description/Annotation: The overarching goal of ENGAGE is to increase the capacity of engineering schools to retain undergraduate students by facilitating the implementation of three research-based strategies to improve student day-to-day classroom and educational experience.

Web site Link: [Link to Resource](#)

Logo:

More: ENGAGE is an Extension Services project funded by a grant from the National Science Foundation. Extension Services projects are modeled after the Cooperative Extension Service in Land Grant Institutions and are intended to extend proven, research-based strategies into STEM education.

The three research-based strategies were selected because they have been found to increase the retention of undergraduate students, particularly women; and because they are enhancements rather than changes to the curriculum. The three strategies are:

- Everyday examples to teach engineering concepts: using examples that are familiar and engaging to students to illustrate theoretical concepts in fundamental engineering courses
- Spatial visualization skills: Improving student spatial visualization skills
- Faculty-Student Interaction: Enhancing the ability for faculty and students to interact inside and outside of the classroom

Resources: Questions? Review FAQs about ENGAGE on the public website www.engageengineering.org.

Site Access Details: The site is publicly accessible. Access to the ENGAGE Professional Community is limited to ENGAGE participants.

Partners and Funding: ENGAGE is funded under NSF grant #0833076.

Contact Name: Susan Metz, PI, Stevens Institute of Technology

Contact E-mail: susan.metz@stevens.edu

Last Update Date: May 29, 2013

Resource Type Categories: Website/Portal Topical Categories: Educational Factors Educational Factors » Faculty Student Interaction Educational Factors » Retention

ENGAGE: Improving Faculty/Student Interaction Webinar Powerpoint Presentation

Resource Title: ENGAGE: Improving Faculty/Student Interaction Webinar Powerpoint Presentation

Description/Annotation: Powerpoint presentation of webinar titled "Improving Faculty/Student Interaction," part 1 of a 3-part webinar series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Carol Muller presents research-based findings on mentoring and engineering education, and also explains seven tactics with examples of implementation to assist faculty members in increasing their mentoring skills with first and second year engineering students.

Author Last Name: Muller
Author First Name: Carol
Additional Author: Metz
:
Susan
Publisher: WEPAN
Publication Date: 2010, Nov 18
Source: ENGAGE

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

ENGAGE: Improving Faculty/Student Interaction Webinar Recording

Resource Title: ENGAGE: Improving Faculty/Student Interaction Webinar Recording

Description/Annotation: This webinar, Improving Faculty/Student Interaction, is Part 1 of a 3-part webinar series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Presented by Carol Muller, the webinar includes research-based findings about retaining first and second year engineering students by improving interactions between faculty and students. Tactics and examples of how to implement them are presented.

Author Last Name: Muller
Author First Name: Carol
Additional Author: Metz
:
Susan
Publisher: WEPAN
Publisher Location: Denver, CO

Publication Date: 2010, Nov 18
Source: ENGAGE
Source Type: Webinar (slides + audio)

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

ENGAGE: Improving Spatial Visualization Skills Webinar PowerPoint Presentation

Resource Title: ENGAGE: Improving Spatial Visualization Skills Webinar
PowerPoint Presentation

Description/Annotation: PowerPoint presentation of webinar titled "Improving Students' Spatial Visualization Skills," part 3 of a 3-part series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Sheryl Sorby, PhD, presents results of students success in undergraduate classes in relation to their spatial skills, and discusses how taking a college course in spatial visualization skills improved their grades and retention in engineering school. She also gives suggestions of what to do and what not to do in introducing courses in your school or program.

Author Last Name: Sorby

Author First Name: Sheryl

Additional Author: Metz

: Susan

Publisher: WEPAN

Publication Date: 2011, Jan 27

Source: ENGAGE

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) »
[Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) »
[Retention](#)

ENGAGE: Improving Spatial Visualization Skills Webinar Recording

Resource Title: ENGAGE: Improving Spatial Visualization Skills Webinar Recording

Description/Annotation: A recording of a webinar titled "Improving Students' Spatial Visualization Skills," part 3 of a 3-part series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Sheryl Sorby, PhD, presents results of students success in undergraduate classes in relation to their spatial skills, and discusses how taking a college course in spatial visualization skills improved their grades and retention in engineering school. She also gives suggestions of what to do and what not to do in introducing courses in your school or program.

Author Last Name: Sorby

Author First Name: Sheryl

Additional Author: Metz

: Susan

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2011, Jan 27

Source: ENGAGE

Source Type: Webinar (slides + audio)

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

ENGAGE: Using Everyday Engineering Examples in the Classroom Webinar PowerPoint Presentation

Resource Title: ENGAGE: Using Everyday Engineering Examples in the Classroom Webinar PowerPoint Presentation

Description/Annotation: Powerpoint presentation of webinar titled "Using Everyday Engineering Examples in the Classroom," part 2 of a 3-part webinar series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Eann Patterson presents results of a pilot study related to using everyday engineering examples (E3s), how we learn, the essential attributes of E3s, and specific activities to use as everyday engineering examples.

Author Last Name: Patterson
Author First Name: Eann
Additional Author: Campbell
:
Patricia
Publisher: WEPAN
Publication Date: 2010, Dec 2
Source: ENGAGE

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

ENGAGE: Using Everyday Engineering Examples in the Classroom Webinar Recording

Resource Title: ENGAGE: Using Everyday Engineering Examples in the Classroom Webinar Recording

Description/Annotation: This webinar, Using Everyday Engineering Examples in the Classroom, is Part 2 of a 3-part webinar series on ENGAGE Research-based Strategies to Retain Undergraduates in Engineering. Presented by Eann Patterson, the webinar includes results of a pilot study and how it relates to engineering students performance, how we learn, the essential attributes of everyday engineering examples (E3s), and examples of specific activities to illustrate everyday engineering examples.

Author Last Name: Patterson
Author First Name: Eann
Additional Author: Campbell
:
Patricia
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2010, Dec 2
Source: ENGAGE
Source Type: Webinar (slides + audio)

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Engagement, Capacity and Continuity: A Trilogy for Student Success

Resource Title:	Engagement, Capacity and Continuity: A Trilogy for Student Success
Description/Annotation:	32 page report providing framework for planning and assessing programs aimed at increasing student success in the sciences and quantitative disciplines. Report offers trilogy of program success factors that must all be considered and measured: Engagement - subject area interest, awareness and motivation; Capacity - subject area knowledge and skills that allow progression to higher level subject area learning; Continuity - access to resources, opportunities and high quality teaching. Authors also offers ways to measure each factor.
Author Last Name:	Jolly
Author First Name:	Eric J.
Additional Author:	Campbell
:	Patricia B.
Additional Author:	Perlman
:	Lesley
Publisher:	Campbell-Kibler Associates, Science Museum of Minnesota
Publication Date:	2004, Sep
Page Numbers:	32
Source:	Science Museum of Minnesota
Source Type:	Report Summary, Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engaging America's Intellectual Talent: The Status of Women and Minorities in Engineering

Resource Title:	Engaging America's Intellectual Talent: The Status of Women and Minorities in Engineering
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Description/Annotation: Powerpoint presentation (> 80 slides) for WEPAN members (aka WEPAN slide portfolio) developed to generate support for an informed dialogue about diversity in engineering. Slides can be included in your presentations, research, funding requests, and program reports.

Web site Link: [Link to Resource](#)

More: The presentation is only available to WEPAN members. Click [here](#) for information on becoming a WEPAN member.

For WEPAN members, refer to [/wepan](#) for more instructions on accessing this resource.

Resources: Topics include:

- Why diversity is important in engineering
- Trends in math assesment, international math and science comparisons, educational pathways, and recruiting and retention factors across
 - Grades K-8, high school, undergraduate education, graduate education, workforce and the academic workforce

Site Access Details: This resource is available only to WEPAN members.

Partners and Funding: Funded by Lockheed Martin and the National Science Foundation; developed by Commission of Professionals on Science and Technology (CPST).

Contact E-mail: info@wskc.org

Last Update Date: Nov 22, 2013

Resource Type Categories: [Data and Statistics Webinar/Video](#) Topical Categories: [Career Factors Educational Factors Educational Factors » Retention Career Factors » Retention Career Factors » Stereotype Threat](#)

Engaging Latino Families in Informal Science

Resource Title: Engaging Latino Families in Informal Science

Description/Annotation: The article offers information on SciGirls, a multimedia science education program combining TV, community outreach, and web-based resources, aimed to engage Latino families in science and maths education through programs conducted at science centers and other organizations. SciGirls has been produced by Twin Cities Public Television in St. Paul, Minnesota, and funded by the

U.S. National Science Foundation. Funded by NSF GSE under award #1103016.

Author Last Name: Chappa
Author First Name: Lisa
Additional Author: Cirgarroa
: Melissa R.
Additional Author: Correa
:ennifer
Additional Author: Gonzalez
:Derlly
Additional Author: Regalia
: Lisa
Publication Date: 2012, May
Page Numbers: 38-41
Publication Title: Dimensions
Volume: 14
Issue: 3
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences » Media &
Entertainment Publications by Funder » NSF-HRD-GSE Publications by Funder Individual Beliefs and
Behaviors » STEM Career Interest/Awareness

Engaging Male Faculty in Creating Equity for Female STEM Faculty in Academia

Resource Title: Engaging Male Faculty in Creating Equity for Female STEM
Faculty in Academia
Description/Annotation: Campus leaders must challenge the assumption only women can
lead equity initiatives. Both male and female faculty should have
ownership in sustainable equity efforts to improve institutional

competiveness and bring change. This paper describes focus group results addressing “what brings male faculty to the table as equally inspired transformation leaders?”

Author Last Name: Alestalo
Author First Name: Sharon W.
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Engaging Men in Gender Initiatives: What Change Agents Need to Know

Resource Title: Engaging Men in Gender Initiatives: What Change Agents Need to Know

Description/Annotation: This report from the Catalyst series "Engaging Men in Gender Initiatives" examines men's support of gender initiatives in their workplace. This includes ways to increase men's awareness of gender bias and the associated costs, factors that encourage men to lend their support to gender initiatives, and barriers that prevent them from supporting such initiatives.

Author Last Name: Prime
Author First Name: Jeanine
Additional Author: Moss-Racusin
:
Corrinne
Publisher: Catalyst
Publisher Location: New York
Publication Date: 2009
Page Numbers: 44
Source: Catalyst

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Engaging Women in Computer Science and Engineering: Promising Practices for Promoting Gender Equity in Undergraduate Research Experiences

Resource Title: Engaging Women in Computer Science and Engineering: Promising Practices for Promoting Gender Equity in Undergraduate Research Experiences

Description/Annotation: This article describes promising practices in research experiences for undergraduates (REU) that promote women's long-term interest in computer science and engineering. Specifically, this article explores whether and how REU programs include programmatic elements designed to promote gender equity. The article also identifies specific mechanisms that are seen as effective in supporting women in REU programs and in encouraging them to persist in computer science and engineering fields. The findings are drawn from a comprehensive study that includes a national survey of REU programs, follow-up interviews with REU program directors from across the country, and an in-depth evaluation of one REU program over four years.

Author Last Name: Kim

Author First Name: Karen A.

Additional Author: Fann

: Amy J.

Additional Author: Misa-Escalante

: Kimberly O.

Publisher: ACM

Publication Date: 2011, Jul

Publication Title: ACM Transactions on Computing Education

Volume: 11

Issue: 2
Source: ACM
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Engineer Your Life

Resource Title: Engineer Your Life

Description/Annotation: Engineer Your Life is a national messaging campaign designed to reposition engineering as a rewarding career choice for high school girls. Based on in-depth research and message testing, the project aims to meet girls where they live, promoting engineering through the lens of what matters to girls as they begin to shape their own futures. Learn about the program's free resources and how you can use it in your work and share with others.

Web site Link: [Link to Resource](#)

Logo:

More: "Meet Inspiring Women" gives girls a sense of the possibilities of joining the engineering world by offering profiles of current women engineers, including narratives of their stories, photos of them engaged in work, background information and personal quotes to girls.

"Find your Dream Job" describes each engineering discipline and provides discipline-specific information including the kinds of projects one might work on, salaries, links to relevant organizations and profiles of women engineers.

"Making it Happen" offers resources to help girls understand and navigate the educational opportunities related to studying engineering.

Resources: Resources are also grouped for:

- Counselors and Parents to educate them as advisors to girls
- Current Engineers to coach them in ways to communicate with girls and get involved in outreach activities
- Middle school girls - resources are provided on a separate site, [Engineer Girl](#)

Site Access Details: This site is publicly accessible.

Partners and Funding: Engineer Your Life has over 90 coalition partners. Major funding for Engineer Your Life provided by The National Science Foundation and Northrop Grumman Foundation. Additional funding provided by Stephen D. Bechtel, Jr and the United Engineering Foundation (ASCE, ASME, AIChE, IEEE, AIME).

Contact Name: Ellen Robinson
Contact E-mail: ellen_robinson@wgbh.org
Last Update Date: 6/17/2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Engineering a Difference

Resource Title: Engineering a Difference

Description/Annotation: This 30-minute video from the Science360 Knowledge Network follows three teams of engineering students and professional engineers as they work with communities in Ghana, Kenya, and Nicaragua to build critical infrastructure. Together they develop a clean water supply, electricity, and a bridge to help these isolated communities thrive. This video is an example of how enngineers have the power to change lives and make a positive difference in the world.

Author Last Name: National Science Foundation (NSF)

Publisher: NSF

Publisher Location: Washington, DC

Source: Science360 Knowledge Network

Source Type: Video

Resource Type Categories: Webinar/Video Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Engineering and Engineering Technology College Profiles for 1998-2011

Resource Title: Engineering and Engineering Technology College Profiles for 1998-2011

Description/Annotation: Developed by the American Society for Engineering Education (ASEE), the Engineering and Engineering Technology College Profile tool allows students to locate information about U.S. and Canadian schools offering both undergraduate and graduate degree programs by college year and/or school. Institutional information

includes topics such as areas of expertise, student programs, faculty and research. Undergraduate and graduate student information includes topics such as degrees awarded by degree program, and information on admissions, financial aid and research areas.

Author Last Name: ASEE
Publisher: ASEE
Publication Date: 2012
Source: ASEE
Source Type: Database Tool

Resource Type Categories: Database/Tool » Directory Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation

Engineering and Social Justice: In the University and Beyond

Resource Title: Engineering and Social Justice: In the University and Beyond
Description/Annotation: This book is aimed at engineering academics worldwide, who are attempting to bring social justice into their work and practice. This is the first book dedicated specifically to University professionals on Engineering and Social Justice, an emerging and exciting area of research and practice. The book explores all three areas of an engineering academic's professional role: research, teaching and community engagement. This book is a handbook for any engineering academic who wishes to develop engineering graduates as well as technologies and practices that are non-oppressive, equitable and engaged.

Author Last Name: Baillie
Author First Name: Caroline
Additional Author: Pawley
: Alice L.
Additional Author: Riley
: Donna
Publisher: Purdue University Press
Publisher Location: West Lafayette, Indiana

Publication Date: 2012, Jan
Page Numbers: 1-320
Source: Purdue University Press
Source Type: Abstract/Available for Sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Leadership & Management Career Factors » Organizational Culture

Engineering and Social Justice

Resource Title: Engineering and Social Justice

Description/Annotation: The profession of engineering in the United States has historically served the status quo, feeding an ever-expanding materialistic and militaristic culture, remaining relatively unresponsive to public concerns, and without significant pressure for change from within. This book calls upon engineers to cultivate a passion for social justice and peace and to develop the skill and knowledge set needed to take practical action for change within the profession. Because many engineers do not receive education and training that support the kinds of critical thinking, reflective decision-making, and effective action necessary to achieve social change, engineers concerned with social justice can feel powerless and isolated as they remain complicit. Utilizing techniques from radical pedagogies of liberation and other movements for social justice, this book presents a roadmap for engineers to become empowered and engage one another in a process of learning and action for social justice and peace.

Author Last Name: Riley

Author First Name: Donna

Publisher: Morgan and Claypool

Publisher Location: San Rafael, CA

Publication Date: 2008, Jun

Page Numbers: 164

Publication Title: Engineering and Social Justice

Source: Morgan and Claypool Publishers

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Engineering by the Numbers : 2007

Resource Title: Engineering by the Numbers : 2007

Description/Annotation: 36 page report by ASEE containing statistics for engineering enrollment and degrees from 1999-2007 for bachelor, master, and post-doctorate students. Summary by Michael Gibbons, director of data research for ASEE.

Author Last Name: ASEE

Publisher: American Society for Engineering Education

Publication Date: 2008

Source: ASEE

Database Name: Posted with permission

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engineering by the Numbers : 2008

Resource Title: Engineering by the Numbers : 2008

Description/Annotation: 39 page report by ASEE containing statistics for engineering enrollment and degrees from 1999-2008 for bachelor, master, and post-doctorate students. Summary by Michael Gibbons, director of data research for ASEE.

Author Last Name: ASEE

Publisher: American Society for Engineering Education

Publication Date: 2009

Page Numbers: 39

Source: ASEE (posted with permission)

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engineering by the Numbers : 2009

Resource Title: Engineering by the Numbers : 2009
Description/Annotation: 36 page report by ASEE containing statistics for engineering enrollment and degrees from 1999-2009 for bachelor, master, and post-doctorate students. Summary by Michael Gibbons, director of data research for ASEE.
Author Last Name: ASEE
Publisher: American Society for Engineering Education
Publication Date: 2010
Page Numbers: 36
Source: ASEE (posted with permission)

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engineering by the Numbers : 2010

Resource Title: Engineering by the Numbers : 2010
Description/Annotation: 37 page report by ASEE containing statistics for engineering enrollment and degrees from 1999-2010 for bachelor, master, and post-doctorate students. Summary by Michael Gibbons, director of data research for ASEE.
Author Last Name: ASEE
Publisher: American Society for Engineering Education
Publication Date: 2010
Source: ASEE
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engineering by the Numbers : 2011

Resource Title: Engineering by the Numbers : 2011
Description/Annotation: 37 page report by ASEE containing statistics for engineering enrollment and degrees from 1999-2011 for bachelor, master, and

post-doctorate students. Summary by Brian Yoder, director of data research for ASEE.

Author Last Name: ASEE
Publisher: American Society for Engineering Education
Publication Date: 2011
Source: ASEE
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Engineering Careers: A Day for Young Women

Resource Title: Engineering Careers: A Day for Young Women
Description/Annotation: This paper presents a program that specifically focuses on the identification and recruitment of high school young women to engineering, with specific attention to the offerings at the University of Louisville J.B. Speed School of Engineering.

Author Last Name: Hart
Author First Name: Brenda
Additional Author: Hinton-Hudson
:
Veronica
Publication Date: 2008
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Engineering Change for Women in Engineering: The Role of Curricular and Instructional Change

Resource Title: Engineering Change for Women in Engineering: The Role of Curricular and Instructional Change

Description/Annotation: This paper's data suggest that women who participated in the Vertically Integrated Team Design Project (VITDP) at the University of Akron experienced increased opportunities for participation and leadership, thus helping them to hone their engineering skills and boost their self-confidence regarding their engineering abilities. In addition, many of these young women articulated how the project helped them feel connected—to their own experiences, to others, and to the material—and how they learned more as a result.

Author Last Name: Prettyman

Author First Name: Sandra Spickard

Additional Author: Qammar

: Helen

Additional Author: Evans

: Edward

Additional Author: Broadway

: Francis

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Engineering Classroom Environments: Examining Differences by Gender and Departments

Resource Title: Engineering Classroom Environments: Examining Differences by Gender and Departments

Description/Annotation: This paper reports on one year of data from a study of classroom learning environments in three engineering departments, which

differ in size, discipline and pedagogical methodology, at a large eastern university. The results show that the differences found among students in the three different departments studied were based on departmental differences and do not support the commonly held view that men and women experience teaching and learning activities differently based upon gender.

Author Last Name: Marra
Author First Name: Rose
Additional Author: Bogue
:
Barbara
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Engineering Clinics for Teachers (ECT)

Resource Title: Engineering Clinics for Teachers (ECT)

Description/Annotation: The ECT Program is a partnership between Rowan University's Colleges of Engineering and Education to provide an engineering clinic experience for middle school teachers and guidance counselors. This initiative integrates engineering content in the middle school curriculum and trains teachers regarding engineering concepts as well as the identification of students with potential to become engineers. During the ECT experience, teachers work with engineering faculty on simple experiments that can be duplicated in the classrooms with middle school students.

Web site Link: [Link to Resource](#)

More: The first ECT was offered in the Summer of 2006. Current participants are provided teaching materials, meals, transportation for field trips, professional development hours, and a \$650 stipend.

Resources: The ECT website contains information regarding the ECT experience, including:

- ECT directors & sponsors
- Application
- ECT activities
- Rowan Univeristy
- College of Engineering

Site Access Details: This is a publicly accessible site.

Partners and Funding: The ECT program is being funded by a grant from the Martinson Foundation.

Contact E-mail: jahan@rowan.edu

Last Update Date: July 25, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Engineering Communities: A Longitudinal, Comparative Analysis of Persistence among Undergraduate Engineering Students

Resource Title: Engineering Communities: A Longitudinal, Comparative Analysis of Persistence among Undergraduate Engineering Students

Description/Annotation: Interest in increasing the number of engineering graduates in the United States and promoting gender equality and diversification of the profession has encouraged considerable research on women and minorities in engineering. Using a longitudinal, comprehensive data set of more than 79,000 students who matriculated in engineering at nine universities, authors examined the question: How does the persistence of engineering students (to the eighth semester) vary by disaggregated combinations of gender and race/ethnicity? Authors found that for Asian, Black, Hispanic, Native American, and White students, women who matriculate in engineering are most likely to persist in engineering to the eighth semester compared to other eighth-semester destinations and, except for Native Americans, do so at rates comparable to those of men. Thus, contrary to considerable popular opinion that there is a gender gap in persistence, the low representation of women in the later years of engineering programs is primarily a reflection of their low representation at matriculation. Funded by NSF GSE under award #0734085 &

#0734062. Funded by NSF GSE under award #0734085 & #0734062.

Author Last Name: Lord
Author First Name: Susan M.
Additional Author: Camacho
: Michelle Madsen
Additional Author: Layton
: Richard A.
Additional Author: Long
: Russell A.
Additional Author: Ohland
: Matthew W.
Publication Date: 2009
Publication Title: American Sociological Association (ASA) Annual Meeting
Source: All Academic
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder Educational Factors](#) » [Retention](#)

Engineering Cultures

Resource Title: Engineering Cultures

Description/Annotation: This Google Site contains the research plan, methodology, and findings from a dissertation report. The report focuses on the experiences of men and women who were trained in engineering in Canada, with a focus on understanding what impacts retention within the profession and what it means to be successful in the profession. Results indicate that engineering continues to be a "densely masculine" profession with only 12.2% of engineers in Canada in 2006 being women. Women have also been found to be more likely to leave the profession than male colleagues.

Web site Link: [Link to Resource](#)

More: This website contains the dissertation report of a PhD student at the University of Alberta.

Resources: The site contains the following information from the dissertation:

- Research plan & methodology
- Project overview
- Key findings
- References
- Contact information

Site Access Details: This is a publicly accessible website.

Contact Name: Rachel Campbell

Contact E-mail: campbera@gvsu.edu

Last Update Date: July 24, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports Website/Portal](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Cultural Influences](#) » [Gendered Occupations & Study Choices Cultural Influences](#) » [Implicit Bias Career Factors](#) » [Retention Cultural Influences](#) » [Stereotype Threat](#)

Engineering Design: Examining the Impact of Gender and the Team's Gender Composition

Resource Title: Engineering Design: Examining the Impact of Gender and the Team's Gender Composition

Description/Annotation: Observational study at the Colorado School of Mines on the impact of gender on team interactions and deliverables in a two year Engineering Design course. Mixed gender teams had the lowest performance across all team mixes over both years of the course. Authors suggest confidence levels, maturity and skills for working in mixed gender teams were all factors in the outcome.

Author Last Name: Laeser

Author First Name: Melissa

Additional Author: Moskal

: Barbara M.

Additional Author: Knecht

: Robert

Additional Author: Lasich

: Debra
Publication Date: 2003, Jan
Page Numbers: 49-56
Publication Title: Journal of Engineering Education
Source: ASEE

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Engineering Design: Using a Scoring Rubric to Compare the Products of Teams that Differ in Gender Composition

Resource Title: Engineering Design: Using a Scoring Rubric to Compare the Products of Teams that Differ in Gender Composition

Description/Annotation: This study uses an analytic scoring rubric to evaluate the quality of the final reports that are produced by students in engineering design teams. The student teams consisted of four to six members and varied in their gender composition. Based on the results of this study, gender composition appears to have had an impact on the quality of the team submitted final reports. This paper will discuss the specific facets of the reports that varied by gender composition. Funded by NSF GSE under award #9979444.

Author Last Name: Moskal

Author First Name: Barbara M.

Additional Author: Knecht

: Robert

Additional Author: Lasich

: Debra

Publication Date: 2002

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

Engineering differences: Discourses on gender, sexuality, and work in a college of technology

Resource Title:	Engineering differences: Discourses on gender, sexuality, and work in a college of technology
Description/Annotation:	This article looks into the continuing underrepresentation of women in science and engineering. It proposes that looking at individual or structural factors is too restrictive an approach and doesn't allow women to be understood. A more general approach is taken.
Author Last Name:	Henwood
Author First Name:	Flis
Publication Date:	1998, Mar
Page Numbers:	35-49
Publication Title:	Gender & Education
Volume:	10
Issue:	1
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#)

Engineering Education Service Center (EESC)

Resource Title:	Engineering Education Service Center (EESC)
Description/Annotation:	Engineering Education Service Center provides, or helps you provide, information resources to promote, guide, and stimulate interest in Science, Technology, Engineering and Math (STEM) with a particular emphasis on engineering.
Web site Link:	Link to Resource
More:	The Engineering Education Service Center compiles a list of engineering summer camps hosted by universities and research

centers for K-12 students in the United States and Canada. A substantial number of programs specifically target minorities, women, and other groups traditionally underrepresented in the sciences.

Resources: Site has an online store for publications, books, posters, DVDs, tshirts, and teacher resources.

Categorized resources for:

- Women in engineering programs
- Engineering and Engineering Technology schools
- Competitions
- Scholarships
- Engineering Societies
- Resources for students, parents and teachers

Site Access Details: This site is publicly accessible.

Partners and Funding: EESC is an engineering education company.

Contact Name: Celeste Baine

Contact E-mail: celbaine@engineeringedu.com

Last Update Date: June 10, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Pedagogy & Instruction](#)

Engineering Equity Extension Project (EEES)

Resource Title: Engineering Equity Extension Project (EEES)

Description/Annotation: EEES is a five-year project supported by the National Science Foundation, with the goal of increasing the number of women attaining undergraduate degrees in engineering.

Web site Link: [Link to Resource](#)

More: Through use of the extension agent model, EEES places particular emphasis on reaching those teachers and faculty who may not be actively engaged in gender equity activities and are not actively pursuing such activities. They do this by influencing the core professional activities of those teachers and faculty responsible for the development of formal and informal curricula as well as those influencing the social environment through mentoring and programmatic activities.

Resources: [EEES Premier Resources](#) aggregates resources for teachers, faculty, and administrators. Resources include:

- [New Directions in Engineering Excellence](#) - a series of research-based booklets, videos, and presentation slides focused on recruiting, retaining, and advancing women in engineering.
- Applying Research to Achieve Improved Practices in Gender Equity Series
 - [CHANGE](#) - practical steps that faculty can take to enhance the success of female undergraduates by exploiting the implications of the research.
 - [ARP](#) - document suites written by experts in their fields highlight the research base on gender equity in engineering education.
- Applying Research to Achieve Improved Practices in Engineering Education Series
 - Teachers Integrating Prior Scholarship, [TIPS](#)
 - Data-driven Engineering Education Practices, [DEEP](#)
 - Responding to Administrative Priorities, [RAP](#).

Site Access Details: This site is publicly accessible.

Partners and Funding: The EEES project is funded by NSF grant HRD-0533520 under the NAE/CASEE organization.

Contact Name: Elizabeth Cady

Contact E-mail: ecady@nae.edu

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Engineering Global Solutions to Water Scarcity: A Model Outreach Program for Middle School Students

Resource Title: Engineering Global Solutions to Water Scarcity: A Model Outreach Program for Middle School Students

Description/Annotation: This 12-page paper from the 2012 WEPAN National Conference describes the design, development, and assessment of the “Liquid Gold: Engineering a Solution to Water Scarcity” session, part of an after-school outreach program for middle school students called Innovation to Reality (I2R). The conference paper shares activities, outcomes, and helpful strategies for future replication. According to the paper, this model, with a combination of hands-on and lecture learning that also incorporates a global experience, can be applied in other engineering outreach programs. The full conference paper is available in PDF format.

Author Last Name: Logsdon
Author First Name: Rebecca A.
Additional Author: Faust
: Kasey M.
Additional Author: Wiener
: M. Julia
Additional Author: Groh
: Jennifer L.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-12
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Engineering Identity and the Workplace Persistence of Women with Engineering Degrees

Resource Title: Engineering Identity and the Workplace Persistence of Women with Engineering Degrees

Description/Annotation: Researchers sought to identify factors that promote persistence for women in the engineering workplace. Authors hypothesized that

women who strongly self-identified as engineers would be more likely to persist in the engineering workforce and those who did not would be more likely to leave the workforce. To assess the validity of this hypothesis, semi-structured interviews were conducted of 33 women with engineering degrees, including those who persisted in the engineering workforce and those who did not. Findings revealed that strong engineering identification does generally correspond to increased persistence, while a weaker identification corresponds to increased consideration of leaving engineering.

Author Last Name: Plett
Author First Name: Melani
Additional Author: Hawkinson
:
Caitlin
Additional Author: VanAntwerp
:
Jennifer J.
Additional Author: Wilson
:
Denise
Additional Author: Brusvoort
:
Crystal
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Retention](#)

Engineering identity development among pre-adolescent learners

Resource Title: Engineering identity development among pre-adolescent learners
Description/Annotation: The purpose of this study was to examine the development of the Engineering Identity Development Scale (EIDS), an instrument designed to assess elementary school students' identity

development in engineering. This study describes a three-phase approach to item construction, administration, and the gathering of reliable and valid evidence for scores on the EIDS. Funded by NSF GSE under award #0734091.

Author Last Name: Capobianco
Author First Name: B.M.
Additional Author: French
:
Additional Author: Diefes-Dux
:
Publication Date: 2012
Page Numbers: 698-716
Publication Title: Journal of Engineering Education
Volume: 101
Issue: 4
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Engineering in Australia: An Uncomfortable Experience for Women

Resource Title: Engineering in Australia: An Uncomfortable Experience for Women

Description/Annotation: A qualitative investigation of women's and men's experiences in a range of engineering disciplines, industry sectors, and work locations in Australia has been conducted. This investigation found that engineering is often an uncomfortable profession for women, despite the fact that the women engineers interviewed frequently expressed a fascination and expert facility with engineering work. Although the women did express concern about the lack of a family-friendly environment within

engineering workplaces, the investigation found that this was more a symptom of the prevailing workplace culture, often described as a boys' club. The difficult coping strategies women consequently had to adopt, combined with lack of opportunity, support and family-friendly work practices, all contributed to women's feelings of discomfort in the workplace.

Author Last Name: Mills
Author First Name: Julie
Additional Author: Bastalich
:
Wendy
Additional Author: Franzway
:
Suzanne
Additional Author: Gill
:
Judith
Additional Author: Sharp
:
Rhonda
Publication Date: 2006
Page Numbers: 135-154
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 2-3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) »
[Organizational Culture](#) [Cultural Influences](#) » [Stereotype Threat](#)

Engineering Interact

Resource Title: Engineering Interact
Description/Annotation: The site aims to teach children ages 9-11 about science in a fun and interesting way and to promote the subject of engineering.

Web site Link: [Link to Resource](#)

More: This site covers all of the Physical Processes area of the National Curriculum for England. The material is presented in an innovative game format.

Resources:

Interactive Games and advanced resources ('Discover More') on light, sound, forces & motion, earth & beyond, and electricity.

The 'Resource Bank' allows you to access the topical modules outside the game environment.

Site Access Details: This site is publicly accessible.

Partners and Funding: This resource has been created by the University of Cambridge Department of Engineering, with a grant from the HEFCE Aspirations Fund and the University of Cambridge Active Community fund.

Contact E-mail: contact@engineeringinteract.org

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Engineering is Elementary (EiE)

Resource Title: Engineering is Elementary (EiE)

Description/Annotation: The Engineering is Elementary (EiE) project from the Boston Museum of Science aims to foster engineering and technological literacy among children. EiE is creating a research-based, standards-driven, and classroom-tested curriculum that integrates engineering and technology concepts and skills with elementary science topics. EiE lessons not only promote K-12 science, technology, engineering, and mathematics (STEM) learning, but also connect with literacy and social studies.

Web site Link: [Link to Resource](#)

Logo:

Resources: Resources include:

- Curriculum resources - The Engineering is Elementary project will create 20 curricular units focusing on a specific science topic and engineering field, with integrated culturally diverse storybooks.
- Educator resources - lesson plans, multimedia how-to teaching resources, supporting document
- Professional development opportunities
- An online store offering storybooks, teachers guides, materials kits and posters

Site Access Details: This site is publicly accessible.

Partners and Funding: The Engineering is Elementary project is run by the Boston Museum of Science. Funding partners include the National Science Foundation, Liberty Mutual Foundation, Intel Foundation, Cisco Systems Foundation, S. D. Bechtel, Jr. Foundation, National Institute of Standards and Technology, Massachusetts Board of Education Pipeline Fund, U.S. Institute of Museum of Library Services, U.S. Small Business Administration, Hewlett-Packard, Millipore, and Accenture.

Contact E-mail: eie@mos.org

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Engineering Messages - Engineers How are you Changing the Conversation?

Resource Title: Engineering Messages - Engineers How are you Changing the Conversation?

Description/Annotation: Website developed by the National Academy of engineering (NAE) to promote broad implementation by the engineering community of the findings and recommendations presented in the 2008 NAE report, Changing the Conversation: Messages for Improving Public Understanding of Engineering.

Web site Link: [Link to Resource](#)

More: "The Problem" includes narratives with embedded research and resources describing

- the public's misunderstanding of engineering
- Issues related to diversity
- International trends in engineering education

- How the U.S. is faring in preparing engineers

Resources: "The Messages" includes message and taglines you can use to describe engineering. It also includes videos from a variety of organizations all related to portraying engineers and engineering in a positive light.

"Get on Board" includes resources and mechanisms for you to get involved.

- Resources include presentations from organizations that have been using the CTC messages in their outreach, an overview of issues relevant to rebranding engineering, and a summary of what is known about large-scale communications campaigns.
- Mechanisms include a forum for registered users and explanations and links to social media tools and sites related to engineering.

Site Access Details: This site is publicly accessible with an area for registered users (anyone can register).

Partners and Funding: The project is funded by grant EEC-0957578 from the National Science Foundation.

Contact Name: Nasthan Kahl

Contact E-mail: nkahl@nae.edu

Last Update Date: July 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Cultural Influences Educational Factors Individual Beliefs and Behaviors Cultural Influences » Media & Entertainment Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Engineering Persistence: Past, Present, and Future Factors and Gender Differences

Resource Title: Engineering Persistence: Past, Present, and Future Factors and Gender Differences

Description/Annotation: Research examining factors affecting the retention of male and female students in undergraduate engineering programs. The strongest predictor for persistence for both men and women was grade point average.

Author Last Name: Jackson

Author First Name: Linda A.

Additional Author: Gardner
: Philip D.
Additional Author: Sullivan
: Linda A.
Publisher: Springer Netherlands
Publisher Location: Rotterdam, Netherlands
Publication Date: 1993, Sep
Page Numbers: 227-246
Publication Title: The Journal of Higher Education
Volume: 26
Issue: 2
Source: Michigan State University
Database Name: SpringerLink
Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Engineering Research and America's Future: Meeting the Challenges of a Global Economy

Resource Title: Engineering Research and America's Future: Meeting the Challenges of a Global Economy

Description/Annotation: This book represents research done by 15 member Committee to Assess the Capacity of the U.S. Engineering Research Enterprise appointed by the National Academy of Engineering to evaluate public and private engineering research. They were asked to determine if engineering research is sufficient now and in the future for the United States to maintain innovation and stay competitive in the global economy. The book describes major challenges and opportunities for the United States, and provides recommendations to improve a perceived erosion of engineering research and the lack of federal participation in this research. A good resource for government, higher education, and industry.

Author Last Name: NAE

Publisher: The National Academies Press
Publisher Location: Washington, D.C.
Publication Date: 2005
Page Numbers: 1-60
Source: NAE
Database Name: National Academies Press
Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Engineering Schools Boost Efforts to Attract Females

Resource Title: Engineering Schools Boost Efforts to Attract Females
Description/Annotation: Article reports on how engineering schools are re-engineering their programs to attract more women and retain students who have been switching to other disciplines.
Author Last Name: Solnik
Author First Name: Claude
Publisher: Long Island Business News
Publisher Location: Ronkonkoma, NY
Publication Date: 2009, Jun 2
Publication Title: Engineering Schools Boost Efforts to Attract Females
Source: Long Island Business News
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Engineering Student Recruiters: A Review of Role of Women as Peer Recruiters for Potential Engineering Students

Resource Title: Engineering Student Recruiters: A Review of Role of Women as Peer Recruiters for Potential Engineering Students

Description/Annotation: This paper discusses how the engineering recruiting process works including what types of classrooms are visited. Authors review the impact of the engineering student recruiters on recruiting efforts, the benefits of the student recruiter program to potential students, and the logistics of managing this recruiting staff.

Author Last Name: Tiernan

Author First Name: J. Carter

Additional Author: Peterson

: Lynn

Additional Author: Johnson

: Robyn

Additional Author: Phillips

: Jamila

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Engineering Students' Perceptions of their Educational Experiences: the Effects of Gender within Minority Membership

Resource Title: Engineering Students' Perceptions of their Educational Experiences: the Effects of Gender within Minority Membership

Description/Annotation: This 6 page report evaluates the impact of pedagogical and curricular course revisions upon the educational experiences of freshman and sophomore Engineering students. This paper presents the results of perception surveys, and individual interviews in relation to differential perceptions of the educational experiences reported by women and minority students.

Author Last Name: Caso

Author First Name: Rita

Additional Author: Draughn

: Tricia

Publisher: WEPAN

Publication Date: 2000

Page Numbers: 6

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Engineering Success: The Role of Faculty Relationships With African American Undergraduates

Resource Title: Engineering Success: The Role of Faculty Relationships With African American Undergraduates

Description/Annotation: This paper discusses the experiences of twelve African American engineers explored through the lens of Fiske's social-relational models theory. The overall findings of this study suggest that faculty play an important role in encouraging or dissuading the African American engineers in this study to persist in their respective majors. Additionally, the involvement in faculty research laboratories and the referral by faculty to other opportunities and internships relevant to careers in engineering gave participants a much-needed practical application of their coursework. Three themes emerged in analyzing participants' relationships with faculty members: lone wolf supportive faculty,

low expectations of faculty, and a lack of same-race faculty role models.

Author Last Name: Newman
Author First Name: Christopher B.
Publication Date: 2011
Page Numbers: 193-207
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 3
Source: Bepress
Source Type: Full Text

Topical Categories: [Career Factors Educational Factors Educational Factors](#) » [Faculty Student Interaction Career Factors](#) » [Mentoring Educational Factors](#) » [Retention](#)

Engineering Suddenly Hot at Universities

Resource Title: Engineering Suddenly Hot at Universities
Description/Annotation: Newspaper article reporting the rise in enrollment for undergraduate engineering programs attributed to recession concerns and perceptions of job stability. Biomedical and environmental engineering programs are considered more attractive to women.
Author Last Name: Mertens
Author First Name: Richard
Publisher: Christian Science Monitor
Publication Date: 2009, Apr 24
Source: Christian Science Monitor
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors](#) » [Academic & Social ClimateCultural Influences](#)

Engineering Teacher Guides

Resource Title:	Engineering Teacher Guides
Description/Annotation:	Pitsco's Engineering books are the quick and easy way to get started teaching engineering. Hands-on activities integrating science concepts, technology skills and tools, and mathematical processes provide contextual learning opportunities in a STEM environment. These activities parallel real-world engineering tasks and problem-solving opportunities.
Author Last Name:	Baine
Author First Name:	Celeste
Publisher:	PITSCO Education
Publication Date:	2008/2009
Publication Title:	Engineering Teacher Guides
Source:	EESC
Source Type:	Available for Sale

Resource Type Categories: [Guide/Handbook Database/Tool](#) » [Teaching Tools Topical Categories: Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Informal Academic Preparation](#)

Engineering-A-Future for tomorrow's young women

Resource Title:	Engineering-A-Future for tomorrow's young women
Description/Annotation:	This article discusses the benefits of the Engineering-A-Future (EAF) outreach program for middle school age girls in the U.S. The program was established by the Colleges of Engineering and Education at Tennessee Tech University which aims to promote an interest in career options that are still considered nontraditional for females among elementary and middle school girls.
Author Last Name:	Gore
Author First Name:	Susan
Publication Date:	2006
Page Numbers:	46-48

Publication Title: Science Scope
Volume: 30
Issue: 3
Source: NSTA
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

Engineers Canada

Resource Title: Engineers Canada

Description/Annotation: Engineers Canada is the national organization of the 12 provincial and territorial associations that regulate the profession of engineering in Canada and license the country's more than 234,000 members of the engineering profession. The organization coordinates the development of national policies, positions and guidelines on behalf of the engineering profession. It also promotes greater understanding of the nature, role and contribution of professional engineers and engineering to society. The Engineers Canada website offers detailed information on the programs, publications, services and initiatives that the organization undertakes, as well as the various boards, committees and volunteers that contribute to their work. It also contains links to the websites of its member associations as well as to other engineering organizations around the world.

Web site Link: [Link to Resource](#)

More: Engineers Canada is a member of the Canadian Network of National Associations of Regulators, which is a network of national organizations whose members are provincial and territorial regulatory organizations that are responsible for the self-regulation of professions and occupations.

Resources: The wealth of information on Engineer Canada's website is broken down into the following areas:

- Programs
- Projects

- Publications
- News/Media
- Other Links:
 - Constituent associations
 - Canadian engineering schools
 - Canadian engineering organizations

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: Engineers Canada is a non-profit organization and is the business name of the Canadian Council of Professional Engineers. The organization is run by a 22-person Board of Directors as well as an International Committee, which acts as the focal point for Engineers Canada's international activities and work undertaken by committees, volunteers and staff.

Contact Name: Marc Bourgeois

Contact E-mail: marc.bourgeois@engineerscanada.ca

Last Update Date: July 24, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » International Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Engineers Make a Difference: Motivating Students to Pursue an Engineering Education

Resource Title: Engineers Make a Difference: Motivating Students to Pursue an Engineering Education

Description/Annotation: "Engineers Make a Difference" is about showing the color of engineering and, as a result, capturing students' passion, imagination, curiosity and dreams; to inspire them to create a life of abundance, meaning and satisfaction from such a pursuit. It's about finding ways to attract diversity in traditionally white, male-dominated fields, and it examines how we can use engineering's full rainbow of choices to enhance the public's perception of engineering — making it more understandable, captivating and socially desirable. With a focus on the state of K-12 engineering education and motivating students, this book is an invitation to explore engineering and share the fun with students of all ages. Loaded with practical suggestions and over a dozen ways to lure

the least-interested student, Baine is the pioneer that we need right now.

Author Last Name: Baine
Author First Name: Celeste
Publisher: Engineering Education Service Center
Publisher Location: Springfield, OR
Publication Date: 2008, Nov 7
Page Numbers: 144
Source: Engineering Education Service Center
Source Type: Table of contents, Available for sale

Resource Type Categories: Book Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Enhanced Professional Networking and its Impact on Personal Development and Business Success

Resource Title: Enhanced Professional Networking and its Impact on Personal Development and Business Success

Description/Annotation: This 13-page research paper from the IBM T. J. Watson Research Center focuses on professional networking. The Watson Women's Network (WWN) devised an innovative format for a networking event to facilitate professional networking between IBM's technical and business communities. The researchers used social network analysis and other methods to show that the event fostered cohesion between divisions; served as a catalyst for exchange of ideas and opportunities; enabled development of social and professional communication skills; and generated intellectual property and measurable business impact. The results help to quantify how professional networking events cultivate new cross-divisional business collaborations and help enhance personal and professional skills. The full article is available in PDF format.

Author Last Name: Chen
Author First Name: J.

Additional Author: Chen-Ritzo
:
Additional Author: Chess
:
Additional Author: Ehrlich
:
Additional Author: Eleftheriou
:
Publisher: IBM
Publisher Location: Cambridge, MA
Publication Date: 2008, Sep
Page Numbers: 1-13
Source: IBM
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Enhancements to a Retention Program for Women Engineering Technology Students by the Addition of a Social Support Network and Community Building Activities

Resource Title: Enhancements to a Retention Program for Women Engineering Technology Students by the Addition of a Social Support Network and Community Building Activities

Description/Annotation: This paper describes a low-cost, successful program to help retain female Engineering Technology students with the ultimate goal of increasing the number of female graduates of Engineering Technology programs.

Author Last Name: Dell

Author First Name: Elizabeth

Additional Author: Christman
:
Additional Author: Wolcott
:
Additional Author: Valentine
:
Publication Date: 2009
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Enhancing Department Climate: A Chair's Role© A Workshop Series for Department Chairs

Resource Title: Enhancing Department Climate: A Chair's Role© A Workshop Series for Department Chairs

Description/Annotation: This workshop is a series of three sessions where department chairs can explore issues of departmental climate. Each session engages small groups of department chairs in discussions about climate in their own departments and provides them with opportunities to learn from each other's experiences and ideas. A brief departmental climate survey administered between the first and second sessions allows chairs to identify specific issues of concern for their own departments. Participating chairs and facilitators work collaboratively to develop plans to address these issues. Departmental climate in participating departments does improve after a chair's participation in the workshop series.

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Source: WISELI

Source Type: Website with program resources

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Enhancing Department Climate: A Guide for Department Chairs

Resource Title: Enhancing Department Climate: A Guide for Department Chairs

Description/Annotation: This brochure is a practical guide to creating and maintaining a more inclusive climate in university departments. The brochure identifies 8 common concerns faculty, staff, and students have about department climate. It provides department chairs/heads with advice for addressing these concerns and fostering a climate in which all department members feel welcome, respected, and valued.

Author Last Name: Fine

Author First Name: Eve

Additional Author: Sheridan

: Jennifer

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2008

Source: WISELI

Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Enhancing ITS instruction with integrated assessments of learner mood, motivation, and gender

Resource Title: Enhancing ITS instruction with integrated assessments of learner mood, motivation, and gender

Description/Annotation: ITS instruction may be enhanced by models of student motivation and mood, in addition to cognitive skills and domain knowledge. In an initial study, self-assessments by high school students of their mathematics motivation and mood showed gender differences in response to ITS instruction, and predicted students' intention to learn from the ITS and use of multimedia help features. This paper presents initial efforts to assess students' motivation and mood while working with an ITS. Self reports provided a reliable, non-intrusive and inexpensive source of motivation and mood data that could be easily collected in public school classrooms. Much prior research indicates that females and males have different emotional reactions in mathematics, and that females have higher levels of test anxiety. Although females receive higher grades on average than males in math classes, females tend to score lower on high stakes achievement tests such as the SAT-M. Funded by NSF GSE under award #0429125.

Author Last Name: Beal
Author First Name: Carole R.
Additional Author: Shaw
: Erin
Additional Author: Chiu
: Yuan-Chun
Additional Author: lee
: Hyokyeong
Additional Author: Hannes
: Vhjalmsson
Publication Date: 2005
Page Numbers: 750-752
Publication Title: Proceedings of Artificial Intelligence in Education
Source: Information Sciences Institute
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-](#)

Enhancing Research & Publication Success by Cultivating Your Mentoring Network

Resource Title:	Enhancing Research & Publication Success by Cultivating Your Mentoring Network
Description/Annotation:	This presentation from the 2012 WEPAN National Conference is for faculty, doctoral students, and postdoctoral students who want to identify priorities for their own scholarly development, and develop a plan to take responsibility for energizing and building their mentoring networks in support of these goals. Participants in the workshop are encouraged to think about how their professional development needs related to research & publishing could be satisfied through their cultivation of their own mentoring network. The full presentation is available in PDF format.
Author Last Name:	McDaniels
Author First Name:	Melissa
Publisher:	WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date:	2012
Source:	WEPAN
Source Type:	Abstract, Full Text

Enhancing the Community College Pathway to Engineering Careers

Resource Title:	Enhancing the Community College Pathway to Engineering Careers
Description/Annotation:	Community colleges play an important role in starting students on the road to engineering careers, but students often face obstacles in transferring to four-year educational institutions to continue their education.
Author Last Name:	Mattis (ed.)
Author First Name:	Mary C.

Additional Author: Sislin (ed.)
:
John
Publisher: National Academies Press, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2005
Page Numbers: 118
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Educational Factors » Admissions Bias Educational Factors Educational Factors » Formal Academic Preparation

Enhancing the Number of African Americans Who Pursue STEM PhDs: Meyerhoff Scholarship Program Outcomes, Processes, and Individual Predictors

Resource Title: Enhancing the Number of African Americans Who Pursue STEM PhDs: Meyerhoff Scholarship Program Outcomes, Processes, and Individual Predictors

Description/Annotation: The current study examines the outcomes, processes, and individual predictors of the pursuit of a STEM PhD among African-American students in the Meyerhoff Scholarship Program. Meyerhoff students were nearly five times more likely than comparison students to pursue a STEM PhD. Program components consistently rated as important were financial scholarship, being part of the Meyerhoff Program community, the summer bridge program, study groups, staff academic advising, and summer research opportunities. Furthermore, focus group findings revealed student internalization of key Meyerhoff Program values, including a commitment to excellence, accountability, group success, and giving back. In terms of individual predictors, multinomial logit regression analyses revealed that Meyerhoff students with higher levels of research excitement at college entry were more likely to pursue a STEM PhD.

Author Last Name: Maton

Author First Name: Kenneth I.
Additional Author: Sto Domingo
: Mariano R.
Additional Author: Hrabowski, III
: Freeman A.
Publication Date: 2009
Page Numbers: 15-37
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 1
Source: NCBI
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
[Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Educational Factors](#) »
[Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#)

Enhancing Visualization Skills -- Improving Options aNd Success (EnViSIONS) of Engineers and Technology Students

Resource Title: Enhancing Visualization Skills -- Improving Options aNd Success (EnViSIONS) of Engineers and Technology Students

Description/Annotation: Spatial visualization skills are vital to many careers and in particular to STEM fields. Materials have been developed at Michigan Technological University and Penn State Erie, The Behrend College to assess and develop spatial skills. The EnViSIONS (Enhancing Visualization Skills-Improving Options aNd Success) project is combining these materials and testing them with pre-college and college students at seven institutions: Michigan Tech, Penn State Behrend, Purdue University, University of Iowa, Virginia State University, Virginia Tech, and a “Project Lead the Way” course in south-central Arizona. By removing a barrier to success for students with low visualization skills, particularly women, the project leaders hope to improve the retention of these students in STEM disciplines and to enhance

their success. This paper will give a brief overview of the implementations at the university level and the findings. Funded by NSF GSE under award #0714197.

Author Last Name: Veurink
Author First Name: N.L.
Additional Author: Hamlin
: A.J.
Additional Author: Kampe
: J.C.M.
Additional Author: Sorby
: S.A.
Additional Author: Blasko
: D.G.
Publication Date: 2009
Publication Title: Engineering Designs Graphics Journal
Volume: 73
Issue: 2
Source: Engineering Design Graphic Journal
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Entering Mentoring: A Seminar to Train a New Generation of Scientists

Resource Title: Entering Mentoring: A Seminar to Train a New Generation of Scientists
Description/Annotation: This guide developed by HHMI Professor, Jo Handelsman, and her colleagues and co-founders of the Wisconsin Program for Scientific Teaching at the University of Wisconsin, Madison, raises questions about teaching expectations, mentoring as a

function of training new teachers, and dealing with diverse learning styles, personal styles, ethnicity, experience, gender and nationality.

Author Last Name: Handelsman
Author First Name: Jo
Additional Author: Pfund
: Christine
Additional Author: Lauffer
: Sarah Miller
Additional Author: Pribbenow
: Christine Maidl
Publisher: The Wisconsin Program for Scientific Teaching
Publisher Location: Madison, WI
Publication Date: 2005
Page Numbers: 1-141
Publication Title: Entering Mentoring
Source: HHMI
Source Type: Full text

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Retention](#)

Entrepreneurial Leadership, Gender and Teams in the Engineering and Science Context

Resource Title: Entrepreneurial Leadership, Gender and Teams in the Engineering and Science Context

Description/Annotation: This paper discusses a study in which interviews and small focus groups were the methodological tools used for distinguishing leadership and entrepreneurial leadership in an engineering and science context for this preliminary investigation. Emphasis was placed on the gender elements in leadership by using conceptual frameworks from the research on organizational decision-making, sociopsychological fundamentals, and workplace performance.

Forces that influence leadership and team behavior were considered through five framing questions: 1) do males and females equally emerge as leaders in engineering and science? 2) what are the key concepts in team leadership that vary in same sex and mixed sex composition of groups? 3) how do senior level managers distinguish leadership and entrepreneurship? 4) what influence do family and background characteristics have on the conception and practice of leadership? and 5) how do leaders refer to the role of emotion in their work?

Author Last Name: Karanian
Author First Name: Barbara
Additional Author: Okudan
:
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Envisioning a 21st Century Science and Engineering Workforce for the United States: Tasks for University, Industry and Government

Resource Title: Envisioning a 21st Century Science and Engineering Workforce for the United States: Tasks for University, Industry and Government

Description/Annotation: Dr. Jackson discusses the risks to U.S. competitiveness from declines in the science and engineering workforce. She asserts that universities, industry, and the federal government need to partner in improving recruiting, retention, funding, and educational approaches to science and engineering. She also advocates nurturing underrepresented groups in science and engineering.

Author Last Name: Jackson

Author First Name: Shirley Ann
Publisher: National Academies Press, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2003
Page Numbers: 32
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Full text download

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Leadership & Management](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

EnViSIONS at Penn State Erie, The Behrend College

Resource Title: EnViSIONS at Penn State Erie, The Behrend College

Description/Annotation: As part of the EnViSIONS project, two studies were conducted that focused on improving spatial performance. Investigators worked with two populations, high school women and minorities who attended a short term summer training program, and college students intending to major in engineering that were enrolled in the first-year graphics course. The college students participated in a 1-credit supplemental course focusing on spatial skill development where they completed software, workbook and hands-on spatial games. The results from both studies showed improvement from pre-test to post-test on some component spatial skills. This articles discusses the pattern of improvement for the groups and make suggestions for developing more effective training. Funded by NSF GSE under award #0714197.

Author Last Name: Blasko
Author First Name: D.G.
Additional Author: Holliday-Darr
: K.A.
Additional Author: Trich Kremer
: J.D.
Publication Date: 2009

Publication Title: Proceedings of the 2009 ASEE Engineering Design Graphics Division 63rd Midyear Conference

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

EnViSIONS at the University of Iowa

Resource Title: EnViSIONS at the University of Iowa

Description/Annotation: In the fall of 2007, 314 first-year students in the University of Iowa (UI) College of Engineering were given the Purdue Spatial Visualization Test–Rotations (PSVT:R) (Guay, 1977) to assess spatial skills. Results showed a statistically significant difference in the distribution of scores based on gender, with women scoring lower. Students scoring at or below 60% were invited to participate in a pilot training course using the methods developed by Sorby, et al. (2003). While the mean PSVT:R score for the intervention (training) group was initially lower than that of the control group, the average gain in scores was significantly higher for the intervention group, raising their mean score on the post-test above that of the control group. Funded by NSF GSE under award #0714197.

Author Last Name: Brus

Author First Name: C.P.

Additional Author: Boyle

: L.N.

Publication Date: 2009

Publication Title: Proceedings of the 2009 ASEE Engineering Design Graphics Division 63rd Midyear Conference

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

EnViSIONS at Virginia State University

Resource Title: EnViSIONS at Virginia State University

Description/Annotation: Students enrolled in a sophomore level engineering graphics course at Virginia State University tended to have visualization abilities that were significantly below the mean as measured by the Purdue Spatial Visualization Test (PSVT), Mental Cutting Test (MCT) and Lappan test. In an effort to ameliorate these low abilities, and improve student success not only in their engineering graphics courses, but overall in their engineering and technology studies, a spatial visualization curriculum that involved the use of a workbook, interactive CD, and manipulatives was implemented in the course. After completing the curriculum, the students' test scores improved significantly. There has been no significant change in retention or overall grade point average so far but further data will be collected to assess long term results. Funded by NSF GSE under award #0714197.

Author Last Name: Study

Author First Name: N.E.

Publication Date: 2009

Publication Title: Proceedings of the 2009 ASEE Engineering Design Graphics Division 63rd Midyear Conference

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

EnViSIONS at Virginia Tech

Resource Title: EnViSIONS at Virginia Tech

Description/Annotation: As part of the EnViSIONS (Enhancing Visualization Skills--Improving Options aNd Success) project, a one credit hour stand-

alone elective course in spatial visualization is being offered at Virginia Tech. The course is targeted to first-semester engineering students and engineering-bound students who perform poorly on a visualization screening test. In the first offering of the course, in fall 2007, a series of pre- and post-test assessments showed gains of 16-28%, and students generally felt that the materials used were appropriate. The course is slated to be offered each fall. Future plans include a longitudinal study of retention and success for students who elect to take the course and a matching cohort of students who do not take the course. Funded by NSF GSE under award #0714197.

Author Last Name: Knott
Author First Name: T.W.
Additional Author: Kampe
: J.C.M.
Publication Date: 2009
Publication Title: Proceedings of the 2009 ASEE Engineering Design Graphics Division 63rd Midyear Conference
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Equal Access: Inclusive Strategies for Teaching Students with Disabilities (Case Study 3)

Resource Title: Equal Access: Inclusive Strategies for Teaching Students with Disabilities (Case Study 3)

Description/Annotation: This 2-page case study from the National Center for Women & Information Technology (NCWIT) provides strategies for teaching students with disabilities. The case study also includes a summary of tips from "Equal Access: Universal Design of Instruction", a resource provided by DO-IT(Disabilities, Opportunities, Internetworking, and Technology) at the University of Washington. According to the case study, both the physical and the social aspects of a learning environment

influence student participation and satisfaction. The case study is available in PDF format.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
Publisher: National Center for Women & Information Technology (NCWIT)
Publisher Location: Boulder, CO
Publication Date: 2011, May
Publication Title: Promising Practices
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Equal Rites, Unequal Outcomes. Women in American Research Universities

Resource Title: Equal Rites, Unequal Outcomes. Women in American Research Universities
Description/Annotation: Book written for researchers and scientists discussing ways to increase women faculty in research universities. The book was written based on a conference held at Harvard University in 1998.
Author Last Name: Hornig (ed.)
Author First Name: Lilli S.
Publisher: Kluwer Academic/Plenum Publishers
Publisher Location: New York, NY
Publication Date: 2003
Page Numbers: 394
Source: Amazon

Source Type: Abstract, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Professional Development Career Factors » Retention

EQUALS Program

Resource Title: EQUALS Program

Description/Annotation: EQUALS program at the Lawrence Hall of Science, University of California at Berkeley, provides workshops and curriculum materials in mathematics and equity serving preK–12 teachers, parents, families, and community members.

Web site Link: [Link to Resource](#)

More: FAMILY MATH program focuses on families learning mathematics together. Focus is on developing problem-solving skills and building a conceptual understanding of mathematics with hands-on materials. These materials are often found in the home. •

FAMILY MATH supports parent involvement. FAMILY MATH books and classes offer practical ideas on:

- helping with homework
- communicating effectively with teachers
- creating awareness of how math affects a child's future opportunities
- designing a home learning environment

Resources: Site offers books for sale in both English and Spanish.

Site Access Details: This site is publicly accessible.

Partners and Funding: Lawrence Hall of Science, University of California at Berkeley

Contact E-mail: equals@berkeley.edu

Last Update Date: June 10, 2013

Resource Type Categories: Website/Portal Topical Categories: Educational Factors » Curriculum Educational Factors Educational Factors » Pedagogy & Instruction

Equity in Reform: Case Studies of Five Middle Schools Involved in Systemic Reform

Resource Title: Equity in Reform: Case Studies of Five Middle Schools Involved in Systemic Reform

Description/Annotation: The purpose of this study was to assess the progress toward achieving equitable systemic reform in five middle schools. A multiple-case study design was used, and qualitative data were collected. Various equity issues were identified in the five case studies, and the metric proved efficacious in identifying barriers to or facilitators of equitable reform in the schools. Overall, the study illustrates how schools might assess their commitments to providing high-quality science and mathematics education to all students.

Author Last Name: Kahle

Author First Name: Jane Butler

Additional Author: Kelly

: Mary Kay

Publication Date: 2001

Page Numbers: 79-96

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 2

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Eric Jolly: NSF JAM 2009 Keynote speech

Resource Title: Eric Jolly: NSF JAM 2009 Keynote speech

Description/Annotation: 37 minute video by Dr. Eric Jolly, President of the Science Museum of Minnesota, from keynote speech at NSF Joint Annual Meeting (JAM) 2009. In Dr. Jolly's talk, he aims to "comfort the afflicted and afflict the comfortable". He advocates for effective partnerships with policy makers, institutional leadership and community leaders to increase STEM literacy and national competitiveness.

Author Last Name: Jolly
Author First Name: Eric
Publisher: National Science Foundation
Publisher Location: Washington, D.C.
Publication Date: 2009, Jun 10
Source: NSF
Source Type: Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Retention](#)

Escape to Engineering: A Summer Bridge Program for Women in Engineering

Resource Title: Escape to Engineering: A Summer Bridge Program for Women in Engineering

Description/Annotation: This paper discusses the ESCape Program, designed to support incoming female engineering students as they make the transition from high school to college in a number of ways. Incoming first year female engineering students are invited to attend the ESCape camp based on math SAT scores. The week long camp includes elements of how to succeed in college math, three dimensional visualization skills, trips to local manufacturing plants and visits with their entire female engineering staff, parent programs, social programs, introduction to the campus computing environment and more. This paper presents detailed camp content together with the supporting research and assessment.

Author Last Name: Bottomley
Author First Name: Laura
Additional Author: Titus-Becker
: Katherine
Additional Author: Smolensky-Lewis
: Heather
Publication Date: 2009
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

Establishing Gender Structural Invariance of Technology Acceptance Model (TAM)

Resource Title: Establishing Gender Structural Invariance of Technology Acceptance Model (TAM)

Description/Annotation: This study examined pre-service teachers' self-reported intention to use technology. Two hundred and seventy-four participants completed a survey questionnaire measuring their responses to four constructs from the Technology Acceptance Model (TAM): perceived usefulness, perceived ease of use, attitude towards use, and behavioural intention to use. The results of this study showed that the four TAM constructs were significant in explaining pre-service teachers' intention to use technology. Overall, this study indicated that the TAM has the predictive ability to explain the intention to use technology among a sample of educational users.

Author Last Name: Teo
Author First Name: T.
Publication Date: 2010
Page Numbers: 311-320
Publication Title: Asia-Pacific Education Researcher
Volume: 19
Issue: 2
Source: The University of Auckland
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Establishing the Foundation for Future Organizational Reform and Transformation at a Large Private University to Exapand the Representation of Women Faculty

Resource Title: Establishing the Foundation for Future Organizational Reform and Transformation at a Large Private University to Exapand the Representation of Women Faculty

Description/Annotation: This paper discusses the ADVANCE IT-Catalyst project, “Establishing the Foundation for Future Organizational Reform and Transformation at Rochester Institute of Technology”, a three-year study across six colleges which include computing, science, technology, engineering, and mathematics disciplines. The research objective is to identify barriers for current women STEM faculty in regards to rank, tenure, career advancement, leadership role progression, and resource allocation in order to establish how well the university addresses issues that have been found to be important in the recruitment, retention, and advancement of women faculty.

Author Last Name: Bailey

Author First Name: Margaret B.

Additional Author: Marchetti

: Carol Elizabeth

Additional Author: DeBartolo

: Elizabeth A.

Additional Author: Mozrall

: Jacqueline R.

Additional Author: Williams

: Gina M.

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Establishing Women - only Positions in Engineering to Increase Gender Diversity – the Process and Results

Resource Title: Establishing Women - only Positions in Engineering to Increase Gender Diversity – the Process and Results

Description/Annotation: The Faculty of Engineering at the University of Melbourne has put in place a series of initiatives to increase the representation of women academics in Engineering. This paper describes one of these strategies, that is, the establishment of Research Fellow positions, eligible only for women, to be taken up in any one of six Departments of the Faculty of Engineering.

Author Last Name: Jayasuriya

Author First Name: Kanchana

Additional Author: Thomas

: Doreen

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Ethnic and Gender Differences in Science Graduation at Selective Colleges with Implications for Admission Policy and College Choice

Resource Title: Ethnic and Gender Differences in Science Graduation at Selective Colleges with Implications for Admission Policy and College Choice

Description/Annotation: This research tests two hypotheses with implications for affirmative action and group differences in attainment of science, math, or engineering (SME) degrees. Hypothesis 1, that differences in precollege academic preparation will explain later SME graduation disparities, was fully supported with respect to the outcome gap between Whites and underrepresented minorities, partially supported for that between Asians and underrepresented minorities, and between men and women. Hypothesis 2, that college selectivity, after accounting for student characteristics, will be positively associated with SME persistence, was not supported.

Author Last Name: Smyth
Author First Name: Frederick L.
Additional Author: McArdle
: John J.
Publication Date: 2004, Jun
Page Numbers: 353-381
Publication Title: Research in Higher Education
Volume: 45
Issue: 4
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Evaluating a Mentoring Program

Resource Title: Evaluating a Mentoring Program

Description/Annotation: This 12-page guide from the National Center for Women and Information Technology (NCWIT) provides a step-by-step plan for evaluating a workplace mentoring program. The guide also provides example worksheets to assist in the evaluation process. The guide's recommendations are based on best practices in professional program evaluation. The full guide is available in PDF format.

Author Last Name: DuBow
Author First Name: Wendy
Additional Author: Ashcraft
:
Catherine
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2011, May
Page Numbers: 1-12
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Mentoring](#)

Evaluating Gender Differences of Attitudes and Perceptions Toward PowerPoint for Preservice Science Teachers

Resource Title: Evaluating Gender Differences of Attitudes and Perceptions Toward PowerPoint for Preservice Science Teachers

Description/Annotation: This study analyzed the gender differences of participant attitudes and perceptions of various components of PowerPoint™ presentations. Preservice science teachers (none licensed, mostly undergraduates) viewing PowerPoint™ presentations of science content provided the data. The components of the presentations studied were: text, graphics, the combination of text and graphics, narration, and appropriate use of PowerPoint™ for teaching and learning science content.

Author Last Name: Annetta
Author First Name: Len
Publication Date: 2007, Nov
Publication Title: Eurasia Journal of Mathematics, Science & Technology Education
Volume: 3

Issue: 4
Source: Academia.edu
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Evaluating Promising Practices in Informal Information Technology (IT) Education for Girls: Phase III Survey Results

Resource Title: Evaluating Promising Practices in Informal Information Technology (IT) Education for Girls: Phase III Survey Results

Description/Annotation: This 84-page report focuses on the findings of the third phase of a project sponsored by the Girl Scouts of the USA (GSUSA) acting as a hub partner of the National Center for Women in Information Technology (NCWIT). The project was designed to identify promising and effective practices for engaging girls in information technology (IT). Phase three of this project explored what influenced women in IT to obtain their work positions. Results indicated that the women were motivated by the intellectual challenge of the IT field, their own abilities and skills, earning potential, and a genuine interest in the field. The full report is available in PDF format.

Author Last Name: NCWIT

Additional Author: Girls Scout of the USA

Additional Author: Liston

: Carrie

Additional Author: Peterson

: Karen

Additional Author: Ragan

: Vicky

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2008, Sep
Page Numbers: 1-84
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Surveys Articles/Reports](#) » [Web Resources Topical Categories: Educational Factors Educational Factors](#) » [Informal Academic Preparation](#)

Evaluating self-assessment and a placement examination for a first course in computer science: How do women and minority students fare?

Resource Title: Evaluating self-assessment and a placement examination for a first course in computer science: How do women and minority students fare?

Description/Annotation: This paper discusses the role of a placement examination as the means for advisement on entry to the first course in computing. A self-assessment part of the placement examination that was coupled with correct responses can be used to aid in early identification for advisement and course support.

Author Last Name: Urban
Author First Name: Joseph
Additional Author: Anderson-Rowland
:
Additional Author: Navabi
:
Additional Author: Banks
:
Additional Author: Debra
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Evaluating the Effectiveness of Gender Equity Training in Engineering Summer Workshops With Pre-College Teachers and Counselors

Resource Title:	Evaluating the Effectiveness of Gender Equity Training in Engineering Summer Workshops With Pre-College Teachers and Counselors
Description/Annotation:	<p>The WISE Investments (WI) Program is a three-year NSF project designed to encourage young women to pursue engineering and related careers. A major component of this grant is to provide two two-week summer professional development workshops that introduce middle school, high school, and community college teachers and guidance counselors to engineering. These educators are responsible for integrating what they have learned in the engineering workshops by using related activities in their mathematics and science curricula. The counselors include applied math and science in their career counseling and implement an outreach program to encourage students to consider a major in engineering. The engineering workshops have provided instruction to 90 pre-college educators from the local community colleges, middle schools, and high schools. To evaluate the short-term effectiveness of the professional development workshops, assessment instruments were used to provide feedback and strengthen instruction. The educators were asked to complete a questionnaire prior to the workshop to assess their understanding of gender issues in engineering, science, mathematics, and technology. The paper presents a comparison of the summer 1999 and summer 2000 data to illustrate the need for gender equity programs in the middle schools, high schools, and community colleges. Funded by NSF GSE under award #9872818 .</p>
Author Last Name:	Secola
Author First Name:	Patricia M.
Additional Author:	Smiley
:	Bettie A.
Additional Author:	Anderson-Rowland

: Mary R.
Publication Date: 2001
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

Evaluating the Transfer Process for Engineering and Computer Science Students to a Large University

Resource Title: Evaluating the Transfer Process for Engineering and Computer Science Students to a Large University

Description/Annotation: Engineering and computer science transfer students are surveyed to determine how and when they decided on their major, why and when they decided to go to two-year college, and when they decided to transfer to a four-year school. Their expectations and fears, as well as the reality of their transfer, are analyzed by gender and ethnicity.

Author Last Name: Anderson-Rowland

Author First Name: Mary Ruth

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Evaluation of an Intervention to Increase Realistic Self-Efficacy and Interests in College Women

Resource Title: Evaluation of an Intervention to Increase Realistic Self-Efficacy and Interests in College Women

Description/Annotation: An 18 page report on the results of an intervention to increase female college students' self-efficacy in specific Realistic activities (building, repairing, construction) and measure the corresponding effects on interest and confidence in these activities; confidence was shown to increase, interest did not change overall. Suggests that an intervention of seven hours could have a significant effect on women's confidence in traditionally "male" activities; results could be useful to improve representation of women in technical and scientific fields.

Author Last Name: Betz

Author First Name: N. E.

Additional Author: Schifano

: R. S.

Publication Date: 2007

Page Numbers: 35-52

Publication Title: Journal of Vocational Behavior

Volume: 56

Issue: 1

Source: ScienceDirect

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Evaluation of Summer Enrichment Programs for Women Students

Resource Title: Evaluation of Summer Enrichment Programs for Women Students

Description/Annotation: The Center for Pre-college Programs at New Jersey Institute of Technology (NJIT) has offered the Women in Engineering and Technology program (FEMME) since 1981. Since the initial program, an assortment of program evaluation instruments have been developed and implemented. This paper will discuss these

instruments, some successes and some failures, and some of the results that have been obtained.

Author Last Name: Cano
Author First Name: Rosa
Additional Author: Berliner-Heyman
:
Suzanne
Additional Author: Koppel
:
Nicole
Additional Author: Gibbons
:
Siobhan
Additional Author: Kimmel
:
Howard
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Even Tech Execs Can't Get Kids To Be Engineers

Resource Title: Even Tech Execs Can't Get Kids To Be Engineers
Description/Annotation: A Wall Street Journal article describing the difficulty in encouraging kids to go into the engineering field. Engineers in Silicon Valley share stories of their own children and why they don't want to be engineers, with reasons ranging from all the jobs are being outsourced overseas to an image problem with engineering making it an undesirable career. Good for teachers, parents, and industry trying to encourage engineering as a desirable field of study and work.
Author Last Name: Grimes

Author First Name: Ann
Publisher: Wall Street Journal
Publisher Location: New York, NY
Publication Date: 2005, Mar 29
Page Numbers: 1
Publication Title: Wall Street Journal (Eastern Edition)
Source: WSJ
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Every Other Thursday: Stories and Strategies from Successful Women Scientists

Resource Title: Every Other Thursday: Stories and Strategies from Successful Women Scientists

Description/Annotation: This book tells the story of a professional problem-solving group that for more than 25 years has empowered its members by providing practical and emotional support. The objective of “Group,” as Ellen Daniell and six other members call their bimonthly gatherings, is cooperation in a competitive world. And the objective of Every Other Thursday is to encourage those who feel isolated or stressed in a work or academic setting to consider the benefits of such a group—a group in which everyone is on your side.

Author Last Name: Daniell
Author First Name: Ellen
Publisher: Yale University Press
Publisher Location: New Haven, CT
Publication Date: 2005
Source: Yale University Press
Source Type: Summary, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Professional Development Career Factors » Retention

Everyday Engineering: How to Run Your Own Summer Camp

Resource Title: Everyday Engineering: How to Run Your Own Summer Camp

Description/Annotation: This one hour workshop, based on the WE@RIT day camp to address young women's lack of understanding about the engineering field, will convey how to incorporate multiple layers of teachers and role models to inspire campers' interest in engineering. You will learn team building activities, examples of incorporating multi-disciplinary engineering activities, and experience a hands-on design activity.

Author Last Name: Lam

Author First Name: Marca J.

Additional Author: Carville

: Jodi L.

Additional Author: Bailey

: Margaret B.

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Educational Factors » Informal Academic Preparation Educational Factors » Pedagogy & Instruction

Everything I Know I Learned in Kindergarten: Examples of Synergisms Between K-12 Outreach and

Recruitment and Retention of Women and Minorities in Engineering

Resource Title: Everything I Know I Learned in Kindergarten: Examples of Synergisms Between K-12 Outreach and Recruitment and Retention of Women and Minorities in Engineering

Description/Annotation: In the Spring of 2003 the Oregon State University College of Engineering was awarded a grant from the Flora and William Hewlett Foundation for the specific purpose of recruitment and retention of students into engineering, and in particular women and minorities. Approximately one-quarter of the funds allocated in that grant were targeted for K-12 outreach activities, acknowledging the importance of early exposure to both recruitment and retention of women and minorities in engineering. The influx of funding from the Hewlett grant had a significant impact on both the expansion of existing high school outreach programs and allowed for the development of several new programs targeted primarily at K-8 students.

Author Last Name: Rochefort

Author First Name: Willie E.

Additional Author: Levien
: Keith

Additional Author: Ford
: Ellen

Additional Author: Momsen
: Ellen

Publication Date: 2004

Publication Title: ASEE Annual Conference

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Retention Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Evolution and Evaluation of a Biology Enrichment Program for Minorities

Resource Title:	Evolution and Evaluation of a Biology Enrichment Program for Minorities
Description/Annotation:	This paper describes the genesis and evolution of the Biology Undergraduate Scholars Program (BUSP), a large, comprehensive educational enrichment program that has enabled underrepresented minority (URM) students to thrive in biology majors at the University of California, Davis, since 1988. Both design and implementation were, and are, collaborative efforts between campus academic and student services sectors. Formative and summative evaluations have played a key role in program development, resulting in continued improvements in student persistence and performance in basic science courses.
Author Last Name:	Villarejo
Author First Name:	Merna
Additional Author:	Barlow
:	Amy E.L.
Publication Date:	2007
Publication Title:	ASEE Annual Conference Proceedings
Volume:	13
Issue:	2
Source:	Begell House
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Evolving Identities: Undergraduate Women Pursuing the Engineering Professoriate

Resource Title:	Evolving Identities: Undergraduate Women Pursuing the Engineering Professoriate
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Description/Annotation: This paper discusses FemProf, a comprehensive engineering education program that engages female undergraduates at two Hispanic-serving institutions in the United States. Program activities include multisite research experiences, professional development and community building. Workshops address cultural, gender and workplace biases the women may find in the engineering professions, as well as training regarding graduate school application, research presentation and publication. FemProf's explicit focus is preparing undergraduate women for success in graduate school and for future participation in the professoriate.

Author Last Name: Hug
Author First Name: Sarah
Additional Author: Jurow
:
Additional Author: Chi
:
Publication Date: 2011
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#)

Exaggerating the typical and stereotyping the differences: Isolation experienced by Women in STEM Doctoral Programs

Resource Title: Exaggerating the typical and stereotyping the differences: Isolation experienced by Women in STEM Doctoral Programs

Description/Annotation: This paper describes the initial results of a qualitative, longitudinal study designed to understand how career and educational choices unfold for women in graduate school over the course of an entire academic year. Participants recruited from private and public research universities across the U.S. submitted

Internet journal entries (blogs) and/or were interviewed biweekly during fall and spring semesters.

Author Last Name: Fabert
Author First Name: Natalie
Additional Author: Cabay
:
Additional Author: Rivers
:
Additional Author: Smith
:
Additional Author: Bernstein
:
Additional Author: Bianca L.
Publication Date: 2011
Publication Title: ASEE Annual Conference
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Examining Sense of Belonging and Campus Racial Diversity Experiences Among Women of Color in STEM Living-Learning Programs

Resource Title: Examining Sense of Belonging and Campus Racial Diversity Experiences Among Women of Color in STEM Living-Learning Programs

Description/Annotation: This study examined STEM living-learning program participation, overall sense of belonging, interactions with diverse peers, and perceptions of the campus racial climate among racially/ethnically diverse women in STEM majors. Women of color reported lower participation rates in STEM living-learning programs, less strong overall sense of belonging, and more frequent interactions with racially/ethnically diverse peers than did white/Caucasian women.

Findings suggest that achieving a sense of belonging to their campus and having positive campus racial climate perceptions are important for women of color in STEM majors that can be facilitated, in part, by STEM living-learning programs.

Author Last Name: Johnson
Author First Name: Dawn R.
Publication Date: 2011
Page Numbers: 209-223
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Examining the cognitive processes used by adolescent girls and women scientists in identifying science role models: A feminist approach

Resource Title: Examining the cognitive processes used by adolescent girls and women scientists in identifying science role models: A feminist approach

Description/Annotation: This feminist study addresses the gap of women in science professions by examining the cognitive process eighth-grade girls use in identifying a person as a science role model and comparing it to the process used by women scientists seeking to serve as possible science role models. Data revealed that the girls' process in identifying a role model involved personal connections and their initial image of a scientist led them to believe they could not have such a connection with a scientist.

Author Last Name: Buck
Author First Name: Gayle A.

Additional Author: Plano Clark
:
Additional Author: Vicki L. Lu
:
Additional Author: Yun Cerda-Lizarraga
:
Publication Date: Patricia 2008, Jan
Page Numbers: 688-707
Publication Title: Science Education
Volume: 92
Issue: 4
Source: University of Nebraska-Lincoln
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Examining the Complexities of Faculty Attrition: An Analysis of STEM and Non-STEM Faculty Who Remain and Faculty Who Leave the Institution

Resource Title: Examining the Complexities of Faculty Attrition: An Analysis of STEM and Non-STEM Faculty Who Remain and Faculty Who Leave the Institution

Description/Annotation: This study advances understanding of retention of university women faculty in Science, Technology, Engineering, and Math (STEM) disciplines by studying attrition at an upper-Midwest land grant institution. Results indicated that resigned faculty were less satisfied in the areas of Climate, Culture, and Collegiality; Policies and Procedures; and Global Satisfaction than were current faculty; and resigned faculty did not differ by gender nor by non-STEM or STEM status. Current women faculty were less satisfied than current men faculty, and current non-STEM faculty were less satisfied than current STEM faculty. Implications of

these results and recommendations for future investigation are offered.

Author Last Name: Burnett
Author First Name: Ann
Additional Author: Bilen-Green
:
Additional Author: Canan
Additional Author: McGeorge
:
Additional Author: Christi R.
Additional Author: Anicha
:
Additional Author: Cali L.
Publisher: Begell House, Inc
Publisher Location: Redding, CT
Publication Date: 2012
Page Numbers: 1-19
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 18
Issue: 1
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Executive Education: For Professional Women, Programs of Their Own

Resource Title: Executive Education: For Professional Women, Programs of Their Own

Description/Annotation: A brief summary of programs offered by some of the top business schools, including Stanford and Harvard, designed specifically for professional women. Programs are listed by school, price, and a brief description of what the program covers. Topics range from leadership to negotiation to work-life balance and re-entering the

workforce. For professional women interested in improving their business skills to advance their careers.

Author Last Name: Dizik
Author First Name: Alina
Publisher: Wall Street Journal
Publisher Location: New York, NY
Publication Date: 2009, Jan 21
Page Numbers: B11
Publication Title: Wall Street Journal (Eastern Edition)
Source: WSJ
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Career Factors](#) » [Professional Development](#)

Executive Women and the Myth of Having It All

Resource Title: Executive Women and the Myth of Having It All

Description/Annotation: Sylvia Hewlett examines the percentage of women and men who are highly successful in their careers and how many of them have children. She looks at the statistics and explains that the extraordinarily high percentage of highly successful women who do not have children did not do so necessarily by choice, rather, that job circumstances conspired to prevent marriage and motherhood from coexisting with their career. This predicament causes many women to leave the workforce to have families, which affects industry's talent pool negatively. The author suggests how businesses can meet the challenge with examples of policies for working mothers. For industry and the workforce.

Author Last Name: Hewlett
Author First Name: Sylvia A.
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2002, Apr

Publication Title: Harvard Business Review
Volume: 80
Issue: 4
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

Expanding and cultivating the Hispanic STEM doctoral workforce

Resource Title: Expanding and cultivating the Hispanic STEM doctoral workforce

Description/Annotation: An article authored by two individuals from the National Testing Service related to Hispanic representation in STEM doctoral programs. In order to increase student enrollment and success, the numbers of Hispanic faculty must increase. Twenty-one universities participated in a study questioning what is necessary for success in a doctoral program and if Hispanic students are receiving the same opportunities for success. A key issue is transitioning Hispanic students from undergraduate study to post-graduate study. Many questions were posed that need attention to solve this national challenge. Important information for educational policy makers and those seeking to increase Hispanic enrollment in STEM doctoral programs.

Author Last Name: Millett

Author First Name: Catherine M.

Additional Author: Nettles
: Michael T.

Publisher: SAGE Publications

Publisher Location: Thousand Oaks, CA

Publication Date: 2006, Jul

Page Numbers: 258-287

Publication Title: Journal of Hispanic Higher Education

Volume: 5
Issue: 3
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Expanding Girls' Horizons: Strengthening Persistence in the Early Math and Science Education Pipeline

Resource Title: Expanding Girls' Horizons: Strengthening Persistence in the Early Math and Science Education Pipeline

Description/Annotation: This paper discusses the impact of Expanding Your Horizons (EYH) conferences, which encourage girls to take more math and science in high school by exposing them to hands-on activities and role models in math and science professions. This paper is based on 2005 and 2006 one-to-one and small-group interview data from 22 high school girls who attended an EYH conference during their middle school years. The data suggests that EYH strengthens girls' persistence in math and science pathways. Most girls came to the conferences already interested in math and science and at the urging of parents or teachers. Most felt empowered through the shared experience with hundreds of other girls and women, and relayed detailed and enthusiastic descriptions of hands-on activities. Many of the girls also drew connections between EYH and their course-taking actions and career goals. This paper highlights examples of these experiences and makes recommendations for future math and science early pipeline diversity work.

Author Last Name: Virnoche

Author First Name: Mary E.

Publication Date: 2008

Page Numbers: 29-48

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Source: Humboldt State University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Expanding Your Horizons Network (EYH)

Resource Title: Expanding Your Horizons Network (EYH)

Description/Annotation: EYH is a nonprofit organization which encourages young women to pursue science, technology, engineering, and mathematics (STEM) careers. EYH's goal is to motivate girls to become innovative and creative thinkers ready to meet 21st century challenges.

Web site Link: [Link to Resource](#)

More: The EYH Network, (formerly the Math/Science Network) started in 1974 as an informal group of women scientists and educators in the San Francisco Bay Area who were concerned about low female participation in math courses. They began planning coordinated efforts to strengthen their individual programs and establish mutual support on a volunteer basis.

Resources: The EYH website contains a wealth of resources for adults and girls interested in STEM careers, including:

- For Adults: "How-To":
 - Organize a Conference - informatio on how to get started
 - Lead a Workshop
 - Volunteer
- [EYH Conference Database](#) - Locate a conference by state and month
- For Girls
 - Math & Science Games
 - Scientist Role Model Profiles
 - Girl-Inspired STEM Websites

Site Access Details: This is a publicly accessible site.

Partners and Funding: EYH is a non-profit membership organization of educators, scientists, mathematicians, parents, community leaders, and government and corporate representatives.

Contact E-mail: info@expandingyourhorizons.org

Last Update Date: June 15, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Expanding Your Horizons: A Program for Engaging Middle School Girls in Science and Mathematics

Resource Title: Expanding Your Horizons: A Program for Engaging Middle School Girls in Science and Mathematics

Description/Annotation: This article highlights an example of a successful middle school science program in Southwest Missouri. Expanding Your Horizons in Science, Mathematics, and Technology (EYH) integrates keynote speakers, role model mentoring sessions, and small group experiments into a hands-on learning environment. Initial survey results of parents and teachers show support for the conference and indicate that the program helps motivate students to consider careers in science, mathematics, and technology.

Author Last Name: Jahnke

Author First Name: Tamera S.

Additional Author: Level
: Allison V.

Publication Date: 2005

Page Numbers: 171-180

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Experiential Learning: Experience as the Source of Learning and Development

Resource Title:	Experiential Learning: Experience as the Source of Learning and Development
Description/Annotation:	Describes the process of experiential learning with applications for higher education and adult education.
Author Last Name:	Kolb
Author First Name:	David A.
Publisher:	Prentice Hall
Publisher Location:	Englewood Cliffs, CA
Publication Date:	1984
Page Numbers:	288
Source:	Worldcat
Source Type:	Library Catalog, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Explaining Faculty Involvement in Women's Retention

Resource Title:	Explaining Faculty Involvement in Women's Retention
Description/Annotation:	Based on interviews with 100 faculty, administrators, and student support professionals at five campuses, this paper describes a variety of faculty views toward the teaching of engineering generally, and toward different demographic groups of students. The author discusses the variety of contexts within which engineering education is conducted, and their influences on faculty attitudes and behaviors. The authors moves from the national level to the university or the college, which affects faculty life and their views about teaching and students. The authors also suggests some individual faculty characteristics that help explain the variation in outlook and behaviors among colleagues in the same departments and institutions.
Author Last Name:	Kramer
Author First Name:	Laura

Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Organizational Culture](#) [Educational Factors](#) » [Retention](#)

Exploration of Differences in Male and Female Students Over a Four Year Period: Does the Data Indicate Support for the Gender Similarity Hypothesis?

Resource Title: Exploration of Differences in Male and Female Students Over a Four Year Period: Does the Data Indicate Support for the Gender Similarity Hypothesis?

Description/Annotation: This paper discusses differences in male and female engineering enrollment over a four year period. A number of reasons are suggested, including a lack of female faculty in engineering programs, lack of popular media attention towards engineering (as opposed to law and medicine) and a general lack of understanding among students and teachers of engineering during the high school years.

Author Last Name: Reid
Author First Name: Kenneth
Additional Author: Imbrie
: P.K.
Publication Date: 2009
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

[Outside Link to Resource](#)

Exploration of the Relationship between Prior Computing Experience and Gender on Success in College Computer Science

Resource Title:	Exploration of the Relationship between Prior Computing Experience and Gender on Success in College Computer Science
Description/Annotation:	This article presents research related to the effect of prior experience in computing on success in college level computer sciences courses. Non-computer science majors were the focus of the research, and specific relationships between prior computing experience and gender were examined as well. Interesting results for those researching gender differences, because although some areas of prior experience proved beneficial for male students, virtually all areas of prior experience proved beneficial for female students. This research has important implications for encouraging K-12 girls especially to take computer science classes and learn computing skills prior to college.
Author Last Name:	Taylor
Author First Name:	Harriet G.
Additional Author:	Mounfield
:	Luegina C.
Publisher:	Baywood Publishing Company, Inc.
Publisher Location:	Farmingdale, NY
Publication Date:	1994
Page Numbers:	291-306
Publication Title:	Journal of Educational Computing Research
Volume:	11
Issue:	4
Source:	ERIC
Source Type:	Abstract

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Exploratorium

- Resource Title: Exploratorium
- Description/Annotation: The Exploratorium is a museum of science, art and human perception in San Francisco, CA, U.S. Website has online and hands-on resources for students and educators.
- Web site Link: [Link to Resource](#)
- More: Information and activity rich website for topical areas related to Observatory, Planet Earth, Machines and Tools, Living Things, Food, Sport Science, Human Body, Mind and Perceptions.
- Resources: "Explore" resources:
- Online activities & exhibits
 - Webcasts
 - Hands on activities
 - Science news
 - Online magazine
 - Cool sites "Educate" resources:
- Includes digital library accessing NSDL age-appropriate resources
 - Hands on activities
 - Webcasts
 - Publications
- Site Access Details: This site is publicly accessible.
- Partners and Funding: The Exploratorium is a non-profit organization receiving both individual and corporate donations.
- Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Exploring factors that influence computer science introductory course students to persist in the major

- Resource Title: Exploring factors that influence computer science introductory course students to persist in the major

Description/Annotation: This paper describes an exploratory study to identify which environmental and student factors best predict intention to persist in the computer science major. The findings can be used to make decisions about initiatives for increasing retention. Eight indices of student characteristics and perceptions were developed using the research-based Student Experience of the Major Survey: student-student interaction; student-faculty interaction; collaborative learning opportunities; pace/workload/prior experience with programming; teaching assistants; classroom climate/pedagogy; meaningful assignments; and racism/sexism. A linear regression revealed that student-student interaction was the most powerful predictor of students' intention to persist in the major beyond the introductory course. Other factors predicting intention to persist were pace/workload/prior experience and male gender. The findings suggest that computer science departments interested in increasing retention of students set structured expectations for student-student interaction in ways that integrate peer involvement as a mainstream activity rather than making it optional or extracurricular. They also suggest departments find ways to manage programming experience gaps in CS1. Funded by NSF GSE under award #0533580.

Author Last Name: Barker

Author First Name: Lecia

Additional Author: McDowell

: Charlie

Additional Author: Kalahar

: Kimberly

Publication Date: 2009

Page Numbers: 153-157

Publication Title: Proceedings of the 40th ACM Technical Symposium on Computer Science Education

Source: ACM

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Exploring Gender and Self-Confidence in Engineering Students: A Multi-Method Approach

Resource Title:	Exploring Gender and Self-Confidence in Engineering Students: A Multi-Method Approach
Description/Annotation:	This study explores gender differences among engineering students by the Persistence in Engineering survey, a component of the Academic Pathways Study (APS), a multi-method longitudinal study which is part of the Center for the Advancement of Engineering Education. This survey was administered to engineering students seven times during their college years, thus tracing students' confidence in math and science skills over time. Men had higher self-confidence in math and science throughout the four years and similarly, the academic self-confidence of males in their ability to solve open-ended problems was higher than that of females. Student interviews, administered during the last semester of their senior year, provide additional evidence about confidence in engineering students, with marked differences in the responses of male and female students.
Author Last Name:	Chachra
Author First Name:	Debbie
Additional Author:	Kilgore
:	Deborah
Publication Date:	2009
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

Exploring how school counselors position low-income African American girls as mathematics and science learners

Resource Title: Exploring how school counselors position low-income African American girls as mathematics and science learners

Description/Annotation: The underrepresentation of low-income African American girls in science-related careers is of concern. Applying the concept of positionality, the authors explored how three school counselors at low-resourced schools view this population of learners to either support or discourage mathematics and science careers. The results of this study suggest that these school counselors evidence lowered expectations for their students. The authors suggest that school counselors need to become aware of how their perceptions and beliefs impact academic achievement. Funded by NSF GSE under award #0734028.

Author Last Name: West-Olatunji

Author First Name: Cirecie

Additional Author: Shure

: Lauren

Additional Author: Pringle

: Rose

Additional Author: Adams

: Thomasenia

Additional Author: Lewis

: Dadria

Publication Date: 2010, Feb

Page Numbers: 184

Publication Title: Professional School Counseling

Volume: 13

Source: EBSCO

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) » [Admissions Bias](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

Exploring Middle School Girls? Science Identities: Examining Attitudes and Perceptions of Scientists when Working "Side-by-Side" with Scientists

Resource Title:	Exploring Middle School Girls? Science Identities: Examining Attitudes and Perceptions of Scientists when Working "Side-by-Side" with Scientists
Description/Annotation:	This article is the culmination of an extensive inquiry-focused interactive experience involving female middle school students and five university scientists, which demonstrated that middle school girls 'perception of science and scientists can be successfully improved. The study exposed students to adult professional scientists over a period of a few days in laboratory and field exercises.
Author Last Name:	Farland-Smith
Author First Name:	Donna
Publication Date:	2009, Nov
Page Numbers:	415-427
Publication Title:	School Science and Mathematics
Volume:	109
Issue:	7
Source:	Wiley
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Exploring Planets in the Classroom

Resource Title:	Exploring Planets in the Classroom
Description/Annotation:	More than 25 hands-on science activities are provided in classroom-ready pages for both teachers and students for exploring Earth, the planets, geology, and space sciences.
Web site Link:	Link to Resource

Resources: Activities related to Introduction to Solar System, Planetary Properties, Volcanology, Impact Craters, Dynamic Earth, Gradation, Gravity Forces and Rockets, the Moon, Remote Sensing, and Mars.

Site also contains robust list of links to related educational sites.

Site Access Details: This site is publicly accessible.

Partners and Funding: Provided by Hawai'i Space Grant Consortium.

Contact Name: Linda Martel

Contact E-mail: lindamar@hawaii.edu

Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Exploring the Academic Benefits of Friendship Ties for Latino Boys and Girls

Resource Title: Exploring the Academic Benefits of Friendship Ties for Latino Boys and Girls

Description/Annotation: This article examines how the racial/ethnic and generational status composition of Latino students' friendship groups is related to their academic achievement and whether there are differential effects by gender. Funded by NSF GSE under award #0523046.

Author Last Name: Riegler-Crumb

Author First Name: Catherine

Additional Author: Callahan

: Rebecca M.

Publication Date: 2009

Page Numbers: 611-631

Publication Title: Social Science Quarterly

Volume: 90

Issue: 3

Source: NCBI

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
[Categories: Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) » [Family &](#)
[Peers](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) »
[NSF-HRD-GSE Publications by Funder](#)

Exploring the Availability of Student Scientist Identities within Curriculum Discourse: An anti-essentialist approach to gender-inclusive science

Resource Title: Exploring the Availability of Student Scientist Identities within Curriculum Discourse: An anti-essentialist approach to gender-inclusive science

Description/Annotation: This article takes an anti-essentialist approach to the gendered construction of the science curriculum and its exclusivity. Drawing on post-structuralist theory, it examines the student subject positions that are generated within the dominant discourses and practices of curriculum science. A critical discourse analysis of student interview talk demonstrates the importance of both gender and ethnicity in the production of, or rejection of, scientist identities.

Author Last Name: Hughes
Author First Name: Gwyneth
Publication Date: 2001
Page Numbers: 275-290
Publication Title: Gender and Education
Volume: 13
Issue: 3
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Exploring the Gender Gap in Engineering: A Re-Specification and Test of the Hypothesis of Cumulative Advantages and Disadvantages

Resource Title: Exploring the Gender Gap in Engineering: A Re-Specification and Test of the Hypothesis of Cumulative Advantages and Disadvantages

Description/Annotation: Research study of engineering undergraduates to examine how cumulative micro-inequities impact the low participation rates of women in STEM. Study assessed how the cumulative effects of small advantages and disadvantages across genders impacts the choice of study, retention in STEM programs and advancement in the engineering pipeline. Factors include perceptions of self-ability, interest in chemistry versus physics and social support systems.

Author Last Name: Haines
Author First Name: Valerie A.
Additional Author: Wallace
: Jean E.
Additional Author: Cannon
: M. Elizabeth
Publication Date: 2001, Oct
Page Numbers: 677-684
Publication Title: Journal of Engineering Education
Source: ASEE

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Exploring the Relationships Among Performance on Engineering Tasks, Confidence, Gender, and First Year Persistence

Resource Title: Exploring the Relationships Among Performance on Engineering Tasks, Confidence, Gender, and First Year Persistence

Description/Annotation: This study's analyses show that although first-year women performed equally well as their male counterparts on an engineering task, they reported significantly lower self-ratings of confidence in their intellectual and technical abilities (math and science) than men, yet still persisted at the same rate as their male counterparts during the first year. Authors utilize cognitive dissonance theory and suggest that first year programs have a unique opportunity to help students by aligning their expectations with engineering school experience and increasing the potential for successful completion of an engineering program.

Author Last Name: Light
Author First Name: Jennifer
Additional Author: Korte
:
Additional Author: Yasuhara
:
Additional Author: Ken
Additional Author: Kilgore
:
Additional Author: Deborah
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors » Retention](#) [Individual Beliefs and Behaviors » Self-perception](#)

Exposure, Training, and Environment: Women's Participation in Computing Education in the United States and India

Resource Title: Exposure, Training, and Environment: Women's Participation in Computing Education in the United States and India

Description/Annotation: This article addresses how the participation of women in computing education varies between the United States and India. It is based on in-depth interviews conducted with 60 female students majoring in computer science and computer engineering in the United States and with 60 female students majoring in computer science in India. The findings suggest that although female students are not exposed to the computer in India, as compared with the United States, strong training in mathematics makes Indian female students feel confident about their computing skills in contrast to American female students. Most importantly, the image of computing is of a women-friendly field in India, whereas in the United States, it is of a masculine field.

Author Last Name: Varma
Author First Name: Roli
Publication Date: 2009
Page Numbers: 205-222
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Source: University of New Mexico
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Cultural Influences » Gendered Occupations & Study Choices Individual
Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Extension Services in Engineering: Improving Climate, Instruction and Community to Recruit and Retain Undergraduate Women

Resource Title: Extension Services in Engineering: Improving Climate, Instruction
and Community to Recruit and Retain Undergraduate Women

Description/Annotation: Extension Services in Engineering: Improving Climate, Instruction
and Community to Recruit and Retain Undergraduate Women
(ESE: CIC) is a one-year demonstration project funded by the
National Science Foundation. WEPAN is delivering faculty
professional development, supporting development of gender
diversity action plans, and providing technical assistance to teams
from three engineering schools.

Web site Link: [Link to Resource](#)

Resources: All presentations from a workshop held January 16-18, 2008 are
accessible on the website including

- [Roadmap: Creating a Gender Diversity Action Plan](#) by Daryl
Chubin, Ph.D.

Site Access Details: The site is publicly accessible.

Partners and Funding: Funding provided under National Science Foundation HRD-0734100.

Contact Name: C. Diane Matt

Contact E-mail: dmatt@wepan.org

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Professional Development](#)

FabFems

Resource Title: FabFems

Description/Annotation: The FabFems directory is a national database of women in science, technology, engineering and mathematics (STEM) professions who are inspiring role models for young women. The FabFems directory is accessible to young women, girl-serving STEM programs, and other organizations that are working to increase career awareness and interest in STEM. The FabFems Project intends to broaden the participation of females in the STEM pipeline and to increase the retention of female professionals in STEM fields and careers. The FabFems Project is designed to facilitate the important connection between young women and STEM female professionals during critical transition points in the career pathway.

Web site Link: [Link to Resource](#)

More: The first phase of the FabFems website serves exclusively as a directory of women in STEM fields. Eventually, FabFems will expand into a dynamic online social space, where Role Models will have the opportunity to publicly engage with youth during STEM-related speaking opportunities, forums and events.

Resources: The FabFems website contains the following resources:

- Database of STEM role models
- Strategies for role models to effectively engage student interest
- Strategies for educators to plan successful role model experiences
- Showcases of amazing female role models in the field
- Research and statistics demonstrating the importance of role models and real-world examples for girls in STEM

Site Access Details: This is a publicly accessible site.

Partners and Funding: Fab Fems, funded by the Motorola Solutions Foundation and the National Science Foundation, is a partnership between EdLab Group, Platform Shoes Forum, and Smith College.

Contact E-mail: info@fabfems.org

Last Update Date: July 24, 2013

Resource Type Categories: [Database/Tool](#) » [Database Database/Tool](#) » [Directory Topical Categories: Career Factors Career Factors](#) » [Mentoring](#)

Factors Associated with Women's Interest in Computing Fields

Resource Title: Factors Associated with Women's Interest in Computing Fields

Description/Annotation: This paper presents a theoretically driven and empirically supported model that identifies key factors that predict high school and college women's interest and choice in a career in information technology (IT). At the center of the model is the developmental construct of self-authorship and variables related to the process individuals use to make personal and educational decisions. For female high school and college students, the expression of interest in a career in the IT field is often made with little concrete information from sources outside of the immediate circle of trusted friends and family members. Findings have direct implications for recruiting and advising practice.

Author Last Name: Creamer

Author First Name: Elizabeth

Additional Author: Lee

: Soyoung

Additional Author: Meszaros

: Peggy S.

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Factors influencing successful IT women's career choices: A qualitative study

Resource Title:	Factors influencing successful IT women's career choices: A qualitative study
Description/Annotation:	Women and minorities continue to be underrepresented in information technology (IT) career fields. In this study, we examined critical self-descriptions of women who selected and excelled in information technology careers. Analysis of six narratives revealed that family support, teachers, and hands-on learning experiences were critical sources of women's development of self-authorship leading to selection of an IT career path. Findings from this research suggest intervention strategies for parents, teachers, and counselors that will encourage more women to pursue careers in information technology.
Author Last Name:	Meszaros
Author First Name:	Peggy S.
Additional Author:	Burger
:	Carol J.
Additional Author:	Creamer
:	Elizabeth G.
Publication Date:	2005
Publication Title:	Advancing Women in Leadership Online Journal
Volume:	19
Source:	Advancing Women
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Factors Influencing the Persistence of Ethnic Minority Students Enrolled in a College Engineering Program

Resource Title:	Factors Influencing the Persistence of Ethnic Minority Students Enrolled in a College Engineering Program
Description/Annotation:	The 24-page paper reports a study conducted to assess the factors that influence the academic paths of Hispanic and African American engineering undergraduates. Begins with a brief discussion of explanatory theories that have been applied to explain achievement and persistence in academics, followed by a description of the context for the problem (demographic shifts in the US population, the status of ethnic minorities in higher education). The qualitative part of the study found three major themes in interviews: learning strategies, especially as used by successful students in the study; teaching ability of professor and its effect on student success; and the hostile system. Researchers used grounded theory to frame the research, finding that the system must be reexamined to promote an effective learning environment for all students.
Author Last Name:	Sondgeroth
Author First Name:	Mary S.
Additional Author:	Stough
:	Laura M.
Publication Date:	1992
Page Numbers:	1-24
Publication Title:	Paper Presented at the American Educational Research Association (AERA)
Source:	ERIC
Source Type:	Abstract, Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Factors that Encourage or Discourage the Persistence of Female Students in Undergraduate Education

Resource Title: Factors that Encourage or Discourage the Persistence of Female Students in Undergraduate Education

Description/Annotation: This paper aims to increase knowledge about U.S. colleges and departmental cultures that promote or discourage an equitable and inviting environment for women in engineering. Findings from several meta-analyses of studies documenting research into the underlying reasons for the disparities in participation by women in science, engineering, and technology (SET) high school courses, community college and university majors, and careers have been published.

Author Last Name: Burger

Author First Name: Carol

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Factors that influence students' plans to take computing and information technology subjects in senior secondary school

Resource Title: Factors that influence students' plans to take computing and information technology subjects in senior secondary school

Description/Annotation: This article explores factors that contribute to low participation rates in computing and information technology (CIT) courses in senior secondary school, particularly for females. Partly drawing on the Values-Expectancy Theory the following variables are explored separately and within a single model: gender, ability, values/ beliefs, and access and use at home and at school. As well as presenting results consistent with current literature, an inclusive and eclectic model is developed. The model indicates that, in addition to gender and the student's beliefs about the value of the subjects, plans to take CIT subjects are also affected by the amount of use of IT at school.

Author Last Name: Downes
Author First Name: Toni
Additional Author: Looker
:
Dianne
Publisher: Taylor and Francis
Publication Date: 2011
Page Numbers: 175-199
Publication Title: Computer Science Education
Volume: 21
Issue: 2
Source: Computer Science Education
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Faculty Diversity: Problems and Solutions

Resource Title: Faculty Diversity: Problems and Solutions

Description/Annotation: This 2004 book first describes the disadvantages that women and U.S. domestic minorities often encounter as they try to enter and succeed in the professoriate. The book then offers a number of strategies for improving recruitment, retention, and mentorship of these vulnerable groups. Provosts, deans, diversity officers and councils, faculty senates, search and tenure-review committees, teaching and learning centers, mentoring program directors, faculty developers, faculty reading circles--these are the typical users of the book on campuses and at professional schools.

Author Last Name: Moody
Author First Name: JoAnn
Publisher: RoutledgeFalmer
Publisher Location: New York, NY
Publication Date: 2004, Jan

Page Numbers: 1-264
Source: Amazon
Source Type: Summary, Reviews, Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Faculty Diversity: Removing the Barriers, 2nd Edition

Resource Title: Faculty Diversity: Removing the Barriers, 2nd Edition

Description/Annotation: This book explores the question of why there has been so little progress in diversifying faculty at America's colleges, universities, and professional schools and provides steps for hastening faculty diversity. The author provides practical and feasible ways to improve faculty recruitment, retention, and mentorship, especially of under-represented women in science-related fields and non-immigrant minorities in all fields. The second edition of Faculty Diversity offers new insights, strategies, and caveats to the current state of faculty diversity. The revisions to this edition include new strategies to prevent unintended cognitive bias and errors that damage faculty recruitment and retention, as well as an updated Appendix with discussion scenarios and practice exercises. The book is available for sale.

Author Last Name: Moody

Author First Name: JoAnn

Publisher: Routledge, Taylor and Francis Group

Publisher Location: New York, NY

Publication Date: 2011, Dec 19

Page Numbers: 1-288

Source: Routledge

Source Type: Abstract/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Faculty Inventory: Seven Principles for Good Practices in Undergraduate Education

Resource Title:	Faculty Inventory: Seven Principles for Good Practices in Undergraduate Education
Description/Annotation:	Results of a faculty development initiative at a community college to identify positive teaching and student interaction behaviors.
Author Last Name:	Linksz
Author First Name:	Donna
Publication Date:	1992, Mar
Page Numbers:	22
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Faculty on Integrated Project-Based Learning

Resource Title:	Faculty on Integrated Project-Based Learning
Description/Annotation:	This paper examines the experiences, perspectives, and concerns of faculty involved in implementing a first-year integrated project-based engineering curriculum as they attempt to understand and reconcile their own and students' views, attitudes, and beliefs regarding project-based learning (PjBL). A semi-structured, open-ended interview protocol is employed with seven mathematics and physics faculty participants. Grounded theory is used to identify the following themes: divergence of faculty perceptions regarding the effectiveness of an integrated approach in teaching and learning, the value of projects, and conflicting student expectations. Funded by NSF GSE under award #0624738.
Author Last Name:	Zastavker
Author First Name:	Yevgeniya V.
Additional Author:	Canfield

: Casey
Publication Date: 2009
Page Numbers: 100-107
Publication Title: Academic Exchange Quarterly
Volume: 13
Issue: 1
Source: Bepress
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Faculty Science Positions Continue to Elude Women of Color: Oklahoma Professor's Study Finds Hiring, Tenure Remain Stumbling Blocks

Resource Title: Faculty Science Positions Continue to Elude Women of Color: Oklahoma Professor's Study Finds Hiring, Tenure Remain Stumbling Blocks

Description/Annotation: Discusses the all-time high number of women/minorities receiving doctoral degrees, in addition to the stumbling blocks they face in terms of the hiring and tenure process. Discusses study conducted by Oklahoma University professor on employment opportunities in science and engineering fields for women of color.

Author Last Name: Hamilton
Author First Name: Kendra
Publisher: Cox Matthews and Associates, Inc.
Publisher Location: Fairfax, VA
Publication Date: 2004, Mar
Page Numbers: 36-39
Publication Title: Black Issues in Higher Education

Volume: 21
Issue: 3
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Tenure Policies & Practices](#)

FairerScience

Resource Title: FairerScience

Description/Annotation: The FairerScience website provides insider tools and conversation for those actively involved in addressing gender issues in STEM.

Web site Link: [Link to Resource](#)

More: FairerScience began because researchers and advocates for women in STEM have not been effectively communicating their findings in ways that allow the public including policy makers, educators and parents to understand and evaluate these findings and, where appropriate, make decisions based on them. FairerScience is committed to changing that both in terms of gender and where gender issues in STEM interact with issues of race/ethnicity and disability.

Resources: Resources include:

- Blog by Pat Campbell going back to 2006
- ABAB - an annotated bibliography of bibliographies
- Annotated articles and websites
- Profiles of gender research experts
- Narrated slideshows discussing techniques to build web communities
- Tools to locate statistics on gender and science, for working with the media and effective speaking and writing about gender

Site Access Details: This is a publicly accessible website.

Partners and Funding: FairerScience began as joint project of the Wellesley Centers for Women (WCW) and Campbell-Kibler Associates, Inc. funded by the National Science Foundation's Research on Gender in Science and Engineering Program (NSF). NSF funding and WCW support

gave FairerScience the opportunity to begin and grow and we are very grateful to them. FairerScience continues as a project of Campbell-Kibler Associates.

Contact Name: Pat Campbell
Contact E-mail: Campbell@campbell-kibler.com
Last Update Date: Sept 18, 2009

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

False Start: A Missed Opportunity for Women and Girls in Science, Technology, Engineering and Mathematics in the Race to the Top Awards

Resource Title: False Start: A Missed Opportunity for Women and Girls in Science, Technology, Engineering and Mathematics in the Race to the Top Awards

Description/Annotation: Evaluation by NAPE of how well U.S. state applications for the Dept of Education (DoEd) "Race to the Top" program met the grant criterion to "prepare more students for advanced study and careers in STEM, including underrepresented groups and women and girls." Provides state by state reporting of the scoring on this criterion and comments on the success or failure of the scores. Outcome of report is to provide specific guidelines to the DoED to improve the consistency and relevance of scoring for RTTT grant submissions to ensure that criterion is addressed by grant submitters and fairly rated by all grant reviewers.

Author Last Name: Lufkin
Author First Name: Mimi
Additional Author: Tuvevson
: Nancy
Publisher: National Alliance for Partnerships in Equity (NAPE)
Publisher Location: Cochranville, PA
Publication Date: 2011, Mar
Page Numbers: 31
Source: NAPE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Family Influence on Engineering Students

Resource Title:	Family Influence on Engineering Students
Description/Annotation:	Families of engineering students provide exceptional levels of support to their children. For women in engineering, this support is crucial from the pre-college level onward. In particular, female engineers' parents tend to raise their daughters with fewer gender stereotypes and place greater weight on education and learning.
Author Last Name:	AWE
Publisher:	SWE-AWE
Publication Date:	2005
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#)

Favoritism, Bias, and Error in Performance Ratings of Scientists and Engineers: The Effects of Power, Status, and Numbers

Resource Title:	Favoritism, Bias, and Error in Performance Ratings of Scientists and Engineers: The Effects of Power, Status, and Numbers
Description/Annotation:	The authors argue that the sociostructural level of different groups affects the way they evaluate others and receive evaluations themselves. Over 2,400 performance ratings of scientists and engineers were analyzed according to who did the evaluating and who the ratings were for. The authors were looking for gender and/or minority bias and other tendencies of favoritism. Good information for industry leadership.

Author Last Name: Smith
Author First Name: D. R.
Additional Author: DiTomaso
:
Nancy
Additional Author: Farris
:
George F.
Additional Author: Cordero
:
Rene
Publisher: Springer
Publisher Location: New York, NY
Publication Date: 2001, Sep
Page Numbers: 337-358
Publication Title: Sex Roles: A Journal of Research
Volume: 45
Issue: 5-6
Source: Springer
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

Female Amalgamation into Industrial Technology and Factors Causative to Recruitment and Retention

Resource Title: Female Amalgamation into Industrial Technology and Factors Causative to Recruitment and Retention

Description/Annotation: The purpose of this study was to analyze efforts by the two NAIT (National Association of Industrial Technology) accredited Industrial Technology programs in the state of Mississippi – Alcorn State University and Jackson State University – toward recruitment and retention of females in this field of study. NAIT is the primary organization of Industrial Technology that provides direction and accrediting standards to programs and individuals.

This study identified initiatives that Industrial Technology department chairs, program coordinators, and faculty could use to implement more meaningful recruitment practices for female students, thus, improving opportunities available to them.

Author Last Name: Buck
Author First Name: Jessica
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Female and Male Engineering Students' Personality Characterization of Successful Engineering Students, Engineers, and Themselves

Resource Title: Female and Male Engineering Students' Personality Characterization of Successful Engineering Students, Engineers, and Themselves

Description/Annotation: This study examines the recruitment and retention of women in undergraduate engineering education using the lenses of identity theory and self-concept differentiation. An adjective checklist was employed to explore how students' characterize themselves, successful engineering students and professional engineers. Results reveal how male vs. female engineering students conceptualize group members.

Author Last Name: Casto
Author First Name: Kathleen
Additional Author: Chase
:
Additional Author: Pierrakos
:
Additional Author: Olga

Additional Author: Anderson
:
Robin
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) »
[Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Female Faculty and the Sciences

Resource Title: Female Faculty and the Sciences
Description/Annotation: An article reporting on a congressional hearing examining the effects of Title IX in educational programming and using the number of women in academic STEM positions as an indicator of success. Also looks at some programs and grants and whether they have been enough to make a difference. For academics.
Author Last Name: Redden
Author First Name: Elizabeth
Publisher: Inside Higher ED
Publisher Location: Washington, D.C.
Publication Date: 2007, Oct 18
Source: Inside Higher ED
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Female Friendly Science: Including Women in Curricular Content and Pedagogy in Science

Resource Title: Female Friendly Science: Including Women in Curricular Content and Pedagogy in Science

Description/Annotation: This 30-page paper looks at the curricular and pedagogical changes that should be made in order to attract more women and minorities into science. Describes the process of curricular modification from identification of barriers to reconstruction of science and offers pedagogical suggestions for each stage.

Author Last Name: Rosser

Author First Name: Sue V.

Publisher: Penn State University Press

Publication Date: 1993

Page Numbers: 191-220

Publication Title: Journal of General Education

Volume: 42

Issue: 3

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Female Graduate Students and Program Quality

Resource Title: Female Graduate Students and Program Quality

Description/Annotation: This 8-page magazine article reports that computer science graduate programs with the highest scholarly quality tend to have the lowest percentage of female graduate students. The authors were not able to find the cause of this trend, but propose further study.

Author Last Name: McGrath Cohoon

Author First Name: J.

Additional Author: Baylor

: Katharine

Publisher: IEEE

Publisher Location: Los Alamitos, CA
Publication Date: 2003, Fall
Page Numbers: 28-35
Publication Title: Technology and Society Magazine, IEEE
Volume: 22
Issue: 3
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Female Project Managers' Workplace Problems: a Survey

Resource Title: [Female Project Managers' Workplace Problems: a Survey](#)

Description/Annotation: This article examines the extent to which challenges in the workplace may cause female project managers to be in a significantly small minority. A survey of members of the Australian Institute of Project Management in Queensland is described. This compares the experiences and observations of both men and women on various issues related to technical and gender aspects in project management workplaces. The results show that although female project managers experience many problems, male project managers also experience most of the same problems. Likewise, there are also few differences between more and less experience, the level of management, and types of industries. The differences that do occur involve discrimination against women in general, differences in project management styles, and support from other project managers.

Author Last Name: Skitmore
Author First Name: Martin
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Source: Academia.edu

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Female Role Models: Protecting Women's Math Test Performance

Resource Title: Female Role Models: Protecting Women's Math Test Performance

Description/Annotation: Certain situational factors can be detrimental to female performance on certain mathematical tests. However, the presence of a female role model that is perceived as being competent in mathematics protected female test performance.

Author Last Name: Marx

Author First Name: David M.

Additional Author: Roman

: Jasmin S.

Publisher: SAGE Publications

Publisher Location: Los Angeles, CA

Publication Date: 2002

Page Numbers: 1183-1193

Publication Title: Personality and Social Psychology Bulletin

Volume: 28

Issue: 9

Source: Sage

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Female Science Professor Blog

Resource Title: Female Science Professor Blog

Description/Annotation: This is a blog written by a "full professor in a physical sciences field at a large research university. [She is] married and [has] a young child. [She has] the greatest job in the world, but this will not stop [her] from noting some of the more puzzling and stressful aspects of [her] career as a Female Science Professor." She writes about research, teaching, gender issues, and does it all in a very witty and graceful style. It is a pseudonymous blog, so no contact name can be given below.

Web site Link: [Link to Resource](#)

Site Access Details: This site is publicly accessible.

Partners and Funding: This is a personal blogsite.

Contact E-mail: femalescienceprofessor@gmail.com

Last Update Date: June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Female Student Views About IT Careers in High School and College

Resource Title: Female Student Views About IT Careers in High School and College

Description/Annotation: This paper discusses the attitudes of female high school and college students interested in the IT field and discovers the pivotal events and influential people that formed their opinions about IT and the suitability of an IT career for women.

Author Last Name: Burger

Author First Name: Carol

Additional Author: Lee

: Soyoung

Additional Author: Laughlin

: Anne

Additional Author: Meszaros

: Peggy S.

Additional Author: Creamer

: Elizabeth
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Female Teachers' Math Anxiety Affects Girls' Math Achievement

Resource Title: Female Teachers' Math Anxiety Affects Girls' Math Achievement
Description/Annotation: Psychologists at the University of Chicago report that math anxiety of elementary school teachers (who are predominantly female) has a negative impact on math achievement in their female students (but not their male students). This report published in PNAS was picked up in the popular media.
Author Last Name: Beilock
Author First Name: Sian
Additional Author: Gunderson
: Elizabeth
Additional Author: Ramirez
: Gerardo
Additional Author: Levine
: Susan
Publisher: PNAS
Publisher Location: Washington DC
Publication Date: 2010, January 25
Page Numbers: 1-4
Source: PNAS

Source Type: Abstract, Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Females Excelling More in Math, Engineering, and Science (FEMMES): An After-School STEM Program for Girls that Fosters Hands-on Learning and Female-to-Female Mentorship

Resource Title: Females Excelling More in Math, Engineering, and Science (FEMMES): An After-School STEM Program for Girls that Fosters Hands-on Learning and Female-to-Female Mentorship

Description/Annotation: This paper discusses an after-school outreach curriculum which is part of the Females Excelling More in Math, Engineering, and Science (FEMMES) program at Duke University. The goal of the FEMMES after-school program is to inspire 4th-6th grade girls in science, math, and engineering through hands-on activities with female undergraduate and graduate student volunteers. Researchers examined the interest, knowledge, and confidence in STEM fields measured through pre- and post-test surveys given to 100 girls who participated in the FEMMES after-school program. Results indicated a significant increase in the girls' interest in science and engineering, knowledge in science, and confidence in math and science.

Author Last Name: Chen

Author First Name: C.F.J.

Additional Author: Jiang

:

Additional Author: Litkowski

:

Additional Author: Elia

:

Additional Author: Shuen

:

Publication Date: 2011
Page Numbers: 313-324
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors » Pedagogy & Instruction](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Females in Technology Education: The Obligation of a Democratic Society

Resource Title: Females in Technology Education: The Obligation of a Democratic Society
Description/Annotation: This paper discusses the huge disparity between males and females in technology education.
Author Last Name: Gloeckner
Author First Name: Gene W.
Additional Author: Knowlton
: Lynette K.
Publication Date: 1995, Dec
Page Numbers: 47-49
Publication Title: Technology Teacher
Volume: 55
Issue: 4
Source: ERIC
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Feminism and engineering

Resource Title: Feminism and engineering

Description/Annotation: This paper is written by four women engineers who identify themselves as feminists, with Ph.D. degrees and interests in education. The authors' experiences with formal courses in pedagogy and feminism range from none to quite extensive. For this study, each author wrote an essay in response to questions of how each combines feminism and engineering as well as their opinions on feminist pedagogy. Authors used these essays as data for a qualitative analysis from which several common themes and differences emerged.

Author Last Name: Lord

Author First Name: S.M.

Additional Author: Cashman
: E.M.

Additional Author: Eschenbach
: E.A.

Additional Author: Waller
: A.A.

Publication Date: 2005

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Feminism and Science

Resource Title: Feminism and Science
Description/Annotation: Collection of essays by sociologists, scientists, historians, and philosophers in feminist social sciences. Authors examine gender bias and stereotypes in science and by scientists.
Author Last Name: Tuana (ed.)
Author First Name: Nancy
Publisher: Indiana University Press
Publisher Location: Bloomington, IN
Publication Date: 1989
Page Numbers: 264
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Implicit Bias Cultural Influences » Stereotype Threat Career Factors » Stereotype Threat

Feminist approaches to science

Resource Title: Feminist approaches to science
Description/Annotation: This 212-page text is a collection of papers focusing on the intersection of feminism and science. Papers are primarily from an April 1985 symposium, "Feminist Perspectives on Science," at the University of Wisconsin-Madison. Includes individual papers exploring the relationship between feminism and epistemology and research on sex differences. Includes: "Science Seen through a Feminist Prism"; "Critiques of Modern Science: The Relationship of Feminism to Other Radical Epistemologies"; "Beyond Masculinist Realities: A Feminist Epistemology for the Sciences"; "Primateology is Politics by Other Means"; "Empathy, Polyandry, and the Myth of the Coy Female"; "Sex Differences Research: Science or Belief?" and "The Relationship between Women's Studies and Women in Science". Further discussion offers ways science can be improved by looking at feminist science in the classroom.
Author Last Name: Bleier
Author First Name: Ruth

Publisher: Teachers College Press
Publisher Location: New York, NY
Publication Date: 1986
Page Numbers: 1-212
Database Name: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Feminist Knowledge Claims, Local Knowledge, and Gender Divisions of Agricultural Labor: Constructing a Successor Science

Resource Title: Feminist Knowledge Claims, Local Knowledge, and Gender Divisions of Agricultural Labor: Constructing a Successor Science

Description/Annotation: Issues raised by the feminist epistemic critique of social science are used to examine what is meant by local knowledge and its contribution to analyses of agricultural sustainability. Employing the concepts of partial perspective, lived experience, and the complexity of social context, this paper focuses attention on the juxtaposition of local and scientific knowledge and challenges those interpretations of local knowledge production that ignore the various people, relations, and interests constituting the rural economy.

Author Last Name: Feldman
Author First Name: Shelley
Additional Author: Welsh
:
Rick
Publication Date: 1995, Mar
Page Numbers: 23-43
Publication Title: Rural Sociology
Volume: 60

Issue: 1
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered](#)
[Occupations & Study Choices](#)

Feminist Science in the Case of a Reform-Minded Biology Department

Resource Title: Feminist Science in the Case of a Reform-Minded Biology Department

Description/Annotation: This study explores how science and scientists were produced and reproduced within the setting of a university biology department. Building on recent work in the anthropology of education and feminist science studies, the author explored the reflexive questions of whether increased women's representation in science changed science practice and whether changing science practice increased women's representation in science. The author examined both the contextual and constitutive values of science as they were negotiated and played out in the training of scientists in this setting.

Author Last Name: Buxton

Author First Name: Cory A.

Publication Date: 2001

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 3

Source: Research Gate

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Feminist Theory in Three Engineering Education Journals: 1995-2008

Resource Title:	Feminist Theory in Three Engineering Education Journals: 1995-2008
Description/Annotation:	This 23-page article from the Journal of Engineering Education (JEE) aims to understand and advance the use of feminist theory in engineering education research towards the goals of increasing gender diversity and equity in engineering. Articles from three journals that had women or gender as a central part of their studies were analyzed to determine their level of engagement with feminist theory. The article identifies several ways in which deeper engagement with a wider range of feminist theories can benefit engineering education scholarship.
Author Last Name:	Beddoes
Author First Name:	Kacey
Additional Author:	Borrego
:	Maura
Publisher:	ASEE
Publisher Location:	Washington, DC
Publication Date:	2011
Page Numbers:	281-303
Publication Title:	Journal of Engineering Education
Volume:	100
Issue:	2
Source:	JEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Femmes: A One-Day Mentorship Program to Engage 4th-6th Grade Girls in STEM Activities

Resource Title: Femmes: A One-Day Mentorship Program to Engage 4th-6th Grade Girls in STEM Activities

Description/Annotation: Females Excelling More in Math, Engineering, and Science (FEMMES) hosts an annual, free, one-day event that provides exciting, hands-on workshops for 4th-6th grade girls from Durham, North Carolina, to encourage them to further explore their potential in these fields. This study evaluated the effect of the one-day event on the 4th-6th grade girls' interest in , knowledge of, and confidence in STEM subjects.

Author Last Name: Shuen

Author First Name: Jessica A.

Additional Author: Ella

: Allison R.

Additional Author: Xu

: Katherine

Additional Author: Chen

: Chi-Fung Jennifer

Additional Author: Jiang

: Angela

Publication Date: 2011

Page Numbers: 295-312

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 17

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
[Categories: Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Career Factors](#) »
[Mentoring](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Final Report of the Women's Experiences in College Engineering (WECE) Project

Resource Title: Final Report of the Women's Experiences in College Engineering (WECE) Project

Description/Annotation: This document presents the results of a three-year longitudinal study of 27,000 women in engineering at 53 colleges and universities across the United States. Hierarchical Linear Modeling was used to statistically investigate which variables were related to women's persistence in an engineering major.

Author Last Name: Goodman

Author First Name: Irene

Additional Author: Cunningham
:
Christine

Additional Author: Lachapelle
:
Cathy

Additional Author: Thompson
:
Meredith

Additional Author: Bittinger (et al)
:
Katherine

Publisher: Goodman Research Group

Publisher Location: Cambridge, MA

Publication Date: 2002, Apr

Page Numbers: 1-286

Source: Goodman Research Group, Inc.

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Finding the Teachers We Need

Resource Title: Finding the Teachers We Need

Description/Annotation: In this 12-page document, the authors discuss recent movements to ensure that better prepared and higher quality teachers will be available to students. Offers an overview of the debate over the push for qualified teachers from multiple perspectives.

Author Last Name: Hess

Author First Name: Fredrick M.

Additional Author: Rotheram

: Andrew J.

Additional Author: Walsh

: Kate

Publisher: WestEd

Publisher Location: San Francisco

Publication Date: 2005

Page Numbers: 12

Publication Title: Policy Perspectives

Source: WestEd

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

First Year Physics Graduate Students: Characteristics and Background

Resource Title: First Year Physics Graduate Students: Characteristics and Background

Description/Annotation: This 8-page report from the American Institute of Physics (AIP) is the first in a series on first year physics and astronomy graduate students studying in the U.S. The report presents findings from the 2008 and 2010 surveys of First-Year Graduate Students and examines educational background, sense of preparedness, country of citizenship, subfield of study, and employment goals for first year graduate physics students. The full report is available in PDF format.

Author Last Name: Mulvey

Author First Name: Patrick
Additional Author: Nicholson
: Starr
Publisher: AIP Statistical Research Center
Publisher Location: College Park, MD
Publication Date: 2012, Aug
Page Numbers: 1-8
Publication Title: Focus On
Volume: 2012
Issue: August
Source: AIP
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

First-Year Women on the Engineering Pathway: Research Strategies to Support Retention

Resource Title: First-Year Women on the Engineering Pathway: Research Strategies to Support Retention

Description/Annotation: This research was initiated to address trends seen in undergraduate education at the national level and a trend within the University of Colorado at Boulder. First, researchers obtained a demographically balanced data set through a second administration of the women's survey. Second, seven focus groups were conducted to dig deeper qualitatively into the issues brought up in the survey administrations. Third, researchers focused on the population with the highest attrition rate, first-year women, by comparing their responses to upper-class students on the gender survey and by comparing gender differences on a second survey of first-year students in the college.

Author Last Name: Knight
Author First Name: Daniel

Additional Author: Louie
:
Additional Author: Beverly
:
Additional Author: Glogiewicz
:
Additional Author: Lauren Marie
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

First: A Model for Increasing Quality Minority Participation in the Sciences from the Undergraduate to the Professoriate Level

Resource Title: First: A Model for Increasing Quality Minority Participation in the Sciences from the Undergraduate to the Professoriate Level

Description/Annotation: This paper discusses Fellowships in Research and Science Teaching (FIRST), a 3-year postdoctoral fellowship integrating a traditional research experience at a research institution with a mentored teaching experience at a minority-serving institution. Data presented demonstrate that FIRST has many of the characteristics for creating the supportive environment necessary for such programs to succeed. FIRST fellows develop an effective community and have a quality research experience (as measured by publication quantity and quality) and teaching experience (as measured in fellow, student, and mentor surveys), which translate into their receiving faculty positions. Participating research and minority institutions also receive benefits, including increased research and teaching collaboration, expanded curricula, and greater participation of minorities and women at many levels.

Author Last Name: Brommer
Author First Name: C.L.
Additional Author: Eisen
:
Arri

Publication Date: 2006
Page Numbers: 35-46
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Source: Emory University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

Flexible Work Arrangements III: A Ten-Year Retrospective

Resource Title: Flexible Work Arrangements III: A Ten-Year Retrospective
Description/Annotation: A longitudinal study over ten years with employees, mostly women, who were pioneering flexible working arrangements. The study reveals trends in the workplace and how a flexible work schedule allows retention of top talent. Includes profiles, recommendations for employers and employees, and best practices. For working women and men seeking flexibility in their career, and industry leadership.
Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2000, Jul
Page Numbers: 1-73
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical](#) Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Fostering Success for Women in Science and Engineering: Advice for Departmental Faculty

Resource Title: Fostering Success for Women in Science and Engineering: Advice for Departmental Faculty

Description/Annotation: This brochure, produced by WISELI at the University of Wisconsin-Madison, offers suggestions for promoting success among women in science and engineering to a variety of stakeholders within universities. Includes statistics and data on women's underrepresentation and practical steps to combat some of the most serious threats to women's success in science and engineering.

Author Last Name: Sheridan

Author First Name: Jennifer

Additional Author: Fine
:
Eve

Additional Author: Handelsman
:
Jo

Additional Author: Board of Regents of the University of Wisconsin System

Publisher: Board of Regents of the University of Wisconsin System

Publisher Location: Madison, WI

Publication Date: 2010

Source: WISELI

Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

From "Engineeresses" to "Girl Engineers" to "Good Engineers": A History of Women's U.S. Engineering Education

Resource Title: From "Engineeresses" to "Girl Engineers" to "Good Engineers": A History of Women's U.S. Engineering Education

Description/Annotation: Highlights the history of the evolving face of women in engineering through the 20th century.

Author Last Name: Bix

Author First Name: Amy Sue

Publisher: Indiana University Press

Publication Date: 2004, Spring

Page Numbers: 27-49

Publication Title: NWSA Journal

Volume: 16

Issue: 1

Source: Project MUSE

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

From Advancing Women in Science and Engineering to Advancing Diversity at Virginia Tech: AdvanceVT's Annual Workshop

Resource Title: From Advancing Women in Science and Engineering to Advancing Diversity at Virginia Tech: AdvanceVT's Annual Workshop

Description/Annotation: This 9-page paper from the 2012 WEPAN National Conference describes how the annual workshop of Virginia Tech's ADVANCE program has been sustained by broadening its focus and aligning with institutional priorities. According to the conference paper, the title of the annual workshop changed from "Advancing Women at Virginia Tech" to the more inclusive "Advancing Diversity at Virginia Tech" in response to the university community's desire to broaden the focus to address the advancement of all underrepresented groups in academe. The full paper is available in PDF format.

Author Last Name: Layne
Author First Name: Peggy
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-9
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) »
[Professional Development](#) [Career Factors](#) » [Retention](#)

From community college to Ph.D: Educational pathways in science, technology, engineering, and mathematics

Resource Title: From community college to Ph.D: Educational pathways in science, technology, engineering, and mathematics

Description/Annotation: This study examines the national trend and profile of science and engineering (S&E) doctorates who attended community colleges by using the NSF Doctorate Records File. Specifically, the trends of community college attendance by the S&E doctorates over the past three decades and the characteristics of the community colleges of their attendance are examined. Findings suggest that community colleges play a critical role in the educational pathways of women and minority S&E doctorates. Funded by NSF GSE under award #0507882.

Author Last Name: Starobin
Author First Name: Soko S.
Additional Author: Laanan
: Frankie Santos
Publication Date: 2010
Page Numbers: 67-84
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16
Issue: 1
Source: Begell House
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors »
Formal Academic Preparation Publications by Funder » NSF-HRD-GSE Publications by Funder

From object to subject: hybrid identities of indigenous women in science

Resource Title: From object to subject: hybrid identities of indigenous women in science

Description/Annotation: This article argues that the power has become a constitutive element in our own hybrid identities in indigenous people's attitudes to participate in science and science education.

Author Last Name: McKinley

Author First Name: Elizabeth

Publication Date: 2008, Dec

Page Numbers: 959

Publication Title: Cultural Studies of Science Education

Volume: 3

Issue: 4

Source: EBSCO

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception

From Our Perspective: Undergraduate and Faculty Women in Electrical and Computer Engineering

Programs on Recruitment, Retention, and What Really Works

Resource Title: From Our Perspective: Undergraduate and Faculty Women in Electrical and Computer Engineering Programs on Recruitment, Retention, and What Really Works

Description/Annotation: This paper presents a perspective on why women are underrepresented in undergraduate electrical and computer engineering (ECE) programs. Authors examine some of the previously cited reasons for women's persistent underrepresentation and provide evidence for efforts that have been effective at recruiting and retaining women students in ECE.

Author Last Name: Malady

Author First Name: Amy

Additional Author: Bopp
: Whitney

Additional Author: Jones
: Alexa

Additional Author: McNair
: Britany

Additional Author: Norris
: Kim

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers

Resource Title: From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers

Description/Annotation: The panel presents what is known about the following questions and explores their policy implications: In what sectors are female Ph.D.s employed? What salary disparities exist between men and women in these fields? How is marital status associated with career attainment? Does it help a career to have a postdoctoral appointment? How well are female scientists and engineers represented in management?

Author Last Name: Long (ed.)

Author First Name: J. Scott

Publisher: National Academies Press, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2001

Page Numbers: 340

Source: National Academies Press

Source Type: Summary, Available for sale, Partial text

Resource Type Categories: [Articles/Reports](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors » Family Issues](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Leadership & Management](#)

Frontiers of Engineering: Reports on Leading-Edge Engineering from the 2008 Symposium

Resource Title: Frontiers of Engineering: Reports on Leading-Edge Engineering from the 2008 Symposium

Description/Annotation: Every year at the U.S. Frontiers of Engineering Symposium, 100 of this country's best and brightest engineers, ages 30 to 45, have an opportunity to learn from their peers about pioneering work being done in many areas of engineering. The four general topics covered at the 2008 meeting were: drug delivery systems, emerging nanoelectronic devices, cognitive engineering, and countering the proliferation of weapons of mass destruction. The intent of this book is to convey the excitement of this unique meeting and to highlight cutting-edge developments in engineering research and technical work.

Author Last Name: NAE
Publisher: National Academies Press, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2009
Page Numbers: 194
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: [Book Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) » [Cognition Individual Beliefs and Behaviors Career Factors](#) » [Professional Development](#)

Gaining Options: A Mathematics Program for Potentially Talented At-risk Adolescent Girls

Resource Title: Gaining Options: A Mathematics Program for Potentially Talented At-risk Adolescent Girls

Description/Annotation: In response to indicators that a decline in interest in mathematics occurs among girls—particularly those from low-income and minority groups—during middle school, the GO-GIRL (Gaining Options: Girls Investigate Real Life) program was designed to help potentially talented at-risk girls. The program aimed to build mathematical confidence, skills, and conceptual understanding by integrating mathematics and social science research in a single-sex, technology-rich environment supported by university student mentors. The program targeted seventh-grade urban girls from public and private schools. Participants met over the course of ten Saturdays to learn research methods, computer skills, mathematics, and descriptive statistics. Quantitative data from the girls indicate that participants demonstrated greater confidence in their mathematics ability and increased mathematics achievement after the program. Qualitative data confirmed these findings and supported the contention that multiple factors play a role in fostering girls' interest in studying mathematics and science. Funded by NSF GSE under award #0507902.

Author Last Name: Reid
Author First Name: Pamela Trotman

Additional Author: Roberts
:
Sally K.
Publication Date: 2006, Apr
Page Numbers: 288-304
Publication Title: Merrill-Palmer Quarterly
Volume: 52
Issue: 2
Source: John Hopkins University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal](#)
[Academic Preparation](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy &](#)
[Instruction](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gaining Retention and Achievement for Students Program: A Faculty Development Program

Resource Title: Gaining Retention and Achievement for Students Program: A Faculty Development Program

Description/Annotation: Paper presenting New Mexico State University GRASP program - Gaining Retention and Achievement for Students Program, designed to improve student retention and achievement by changing faculty teaching methods and behaviors. The study includes statistics from 1999 - 2004, and shows evidence that student retention and achievement did indeed improve as a result of faculty participating in the GRASP program. Furthermore, evidence shows faculty members plan to continue to use GRASP methods in their teaching to further promote raising levels of achievement and retention. Particularly valuable to higher education faculty.

Author Last Name: McShannon
Author First Name: J.
Additional Author: Hynes
:
P.

Additional Author: Nirmalakhandan
:
Additional Author: Venkataramana
:
Additional Author: Ricketts
:
Publisher: American Society of Civil Engineers
Publisher Location: Reston, VA
Publication Date: 2006, Jul
Page Numbers: 204-208
Publication Title: Journal of Professional Issues in Engineering Education & Practice
Volume: 132
Issue: 3
Source: American Society of Civil Engineers
Database Name: ERIC
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Gains in Knowledge and Perception of Engineering after Participation in an Engineering Design Web-Experience are Gender-Dependent

Resource Title: Gains in Knowledge and Perception of Engineering after Participation in an Engineering Design Web-Experience are Gender-Dependent

Description/Annotation: This project utilized web animation and interaction in the design of a web-based experience focused on engineering design. In this activity, targeted toward middle school students, users played the role of engineer and engaged in the process of designing a cell

phone for the older adult market. It was hoped that this web-based activity would increase participant understanding of what engineering is and the steps of the engineering design process, while also encouraging students to consider engineering-related careers. An additional aim of this study was to determine whether the web-based application and the object of design (a cell phone) would appeal to female students as much as it would to male students.

Author Last Name: Bigelow
Author First Name: Kimberly Edginton
Additional Author: Wheatley
:
Additional Author: Tomasko
:
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences Educational Factors Individual Beliefs and Behaviors Cultural Influences](#) » [Media & Entertainment Educational Factors](#) » [Pedagogy & Instruction Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gateway Science Workshop (GSW)

Resource Title: Gateway Science Workshop (GSW)
Description/Annotation: The Gateway Science Workshop (GSW) at Northwestern University is a peer-led program designed to enhance students' learning and interest in the STEM fields as they successfully complete course sequences in chemistry, organic chemistry, biology, math, physics, and engineering.
Web site Link: [Link to Resource](#)

More: The GSW program was developed in 1997 as a key part of Northwestern University's strategy to address the issue of retention of students in the STEM disciplines.

Resources: The GSW page on Northwestern's Searle Center for Teaching Excellence website includes information regarding:

- Overview & History
- Information for Students & Facilitators
- Training

Site Access Details: This is a publicly accessible site.

Partners and Funding: The GSW program is managed by the Searle Center for Teaching Excellence and collaborates with academic and administrative departments at Northwestern to ensure the program's continued success. Originally, funded by the Andrew Mellon Foundation from 2000 to 2007, the GSW program has received institutional support from the Office of the Provost to further its goal of deep conceptual learning in the STEM courses.

Contact Name: Sara Woods

Contact E-mail: workshops@northwestern.edu

Last Update Date: July 7, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gearing Up for Change: Institutional Reform in Undergraduate Computing Programs

Resource Title: Gearing Up for Change: Institutional Reform in Undergraduate Computing Programs

Description/Annotation: This 4-page report from the National Center for Women & Information Technology (NCWIT) outlines the prerequisites for transforming to diversity in undergraduate computing and explains NCWIT's Extension Services for Undergraduate Programs (ES-UP). The full report is available in PDF format.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2008, Oct

Page Numbers: 1-4
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender & Society (GENDSOC)

Resource Title: Gender & Society (GENDSOC)

Description/Annotation: Gender & Society is a peer-reviewed journal focused on the study of gender. Published bi-monthly, it is the official journal of Sociologists for Women in Society (SWS), and was founded in 1987 as an outlet for feminist social science. Articles appearing in Gender & Society analyze the social and structural study of gender. The journal primarily publishes original research and international perspectives, as well as reviews of books from various social science disciplines.

Author Last Name: Misra

Author First Name: Joya (ed.)

Publisher: SAGE Publications on behalf of SWS

Publisher Location: Thousand Oaks, CA

Publication Date: 1987+

Source: SWS

Source Type: Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender and Achievement-Related Beliefs Among Engineering Students

Resource Title: Gender and Achievement-Related Beliefs Among Engineering Students

Description/Annotation: Achievement-related beliefs were examined among a group of 238 college students in engineering and nonengineering majors to understand why women enter engineering majors at a low rate and are more likely than men to leave such majors. The results indicated that (a) among the engineering majors, women were more likely than men to identify engineering aptitude as a fixed ability, a belief that was associated with a tendency to drop classes when faced with difficulty; (b) female engineering majors were more likely to perceive male and female engineering students as receiving different treatment than their male counterparts; and (c) female engineering majors tended to place more emphasis on extrinsic factors and less emphasis on intrinsic factors than female nonengineering majors, a pattern not seen among men. Implications for intervention programs are discussed.

Author Last Name: Heyman

Author First Name: Gail D.

Additional Author: Martyna

: Bryn

Additional Author: Bhatia

: Sangeeta

Publication Date: 2002

Page Numbers: 41-52

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Source: MIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender and Agricultural Science: Evidence From Two Surveys of Land-Grant Scientists

Resource Title: Gender and Agricultural Science: Evidence From Two Surveys of Land-Grant Scientists

Description/Annotation: This study tests two sets of hypotheses concerning the association between gender and various structural and attitudinal variables, using data collected in two surveys (1979 and 1995–1996) from random samples of land-grant agricultural scientists. Researchers find significant gender differences in scientists' postdoctoral work experience, academic rank, employment of graduate students, rate of book publication, and links with private industry. Findings indicate that gender is unimportant in explaining differences in scientists' commitment to agricultural sustainability, environmental issues, and family farm preservation as important goals of land-grant research. Yet authors find significant gender differences in attitudes toward biotechnology and the growing links between land-grant universities and private industry.

Author Last Name: Buttel
Author First Name: Frederick H.
Additional Author: Goldberger
: Jessica R.
Publication Date: 2002, Mar
Page Numbers: 24-45
Publication Title: Rural Sociology
Volume: 67
Issue: 1
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender and Corporate Social Responsibility: It's a Matter of Sustainability

Resource Title: Gender and Corporate Social Responsibility: It's a Matter of Sustainability

Description/Annotation: Report from Catalyst, the leading nonprofit membership organization expanding opportunities for women and business, and researchers from Harvard Business School suggesting a link between gender-inclusive leadership and corporate social responsibility (CSR). Findings demonstrate that corporate stakeholders understand the positive influence of gender-inclusive leadership on the quantity of companies' CSR activities. The report indicates that an increase of women leaders in Fortune 500 companies is correlated with higher levels of philanthropy, and companies with both women and men leaders are prepared to achieve sustainable wins for both the company and society.

Author Last Name: Soares
Author First Name: Rachel
Additional Author: Marquis
: Christopher
Additional Author: Lee
: Matthew
Publisher: Catalyst
Publication Date: 2011, Nov
Page Numbers: 1-4
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Gender and Disciplinary Differences in Experiences with Interdisciplinary Collaboration

Resource Title: Gender and Disciplinary Differences in Experiences with Interdisciplinary Collaboration

Description/Annotation: This work directly compares three explanations for differences in experiences of interdisciplinary research collaborators using a sample of 347 academics from 144 different research intensive and extensive universities in the United States who were awarded

funding from the same directorate of the National Science Foundation. The findings provide a much more positive view of interdisciplinary collaboration than is routinely found in the literature.

Author Last Name: Borrego
Author First Name: Maura
Additional Author: Creamer
: Elizabeth
Publication Date: 2007
Page Numbers: 353-376
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 4
Source: Begell House
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Gender and Engineering: Photo Elicitation as a Method of Inquiry

Resource Title: Gender and Engineering: Photo Elicitation as a Method of Inquiry
Description/Annotation: This paper explores the application of photo elicitation as a method of understanding and changing the perceptions of engineering held by professors and undergraduate students of varying disciplines, including engineering and technology. The paper focuses on the following research questions: How is engineering conceptualized by undergraduate students and professors?; and Using photo elicitation, how are these concepts and perceptions gendered? The data set comprises a series of interviews including two individual interviews and one group interview. The study includes 19 participants, including ten women and nine men; participants came from engineering, technology, or health sciences disciplines. Initial findings have

suggested that most professors and students have both similar and unique ways of defining engineering, and many included themes of teamwork and problem solving. Funded by NSF ENG under award #1055900.

Author Last Name: Morley
Author First Name: Katherine M.
Additional Author: Pawley
: Alice L.
Additional Author: Jordan
: Shawn S.
Additional Author: Adams
: Robin
Publication Date: 2011
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-EEC-ENG Publications by Funder Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender and Engineering: Strategies and Possibilities

Resource Title: Gender and Engineering: Strategies and Possibilities
Description/Annotation: This anthology contains 13 articles from the U.S. and Europe about research and programs to understand and address the underrepresentation of women in engineering.
Author Last Name: Welp
Author First Name: Ingelore
Additional Author: Reschka
: Barbara
Additional Author: Larkin

: June
Publisher: Peter Lang
Publisher Location: Frankfurt am Main
Publication Date: 2007
Page Numbers: 252
Publication Title: Gender and Engineering: Strategies and Possibilities
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Educational Factors Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Educational Factors » Retention Career Factors » Retention

Gender and Ethnic Differences Among Science and Engineering Majors: Experiences, Achievements, and Expectations (ETS-RR-94-30)

Resource Title: Gender and Ethnic Differences Among Science and Engineering Majors: Experiences, Achievements, and Expectations (ETS-RR-94-30)

Description/Annotation: This 105 page report details responses to a survey administered to 1651 college seniors in mathematics, science, computer science and engineering who planned to take the GRE. Ethnic and gender differences were reported among those students planning graduate study in these fields. The decision to leave these fields of study was shown to correlate with some answers to survey questions, but not to race, gender or GRE score.

Author Last Name: Grandy
Author First Name: Jerilee
Publisher: GRE Board
Publication Date: 1994
Page Numbers: 1-105
Source: GRE Board
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender and Ethnicity Differences in Freshman Engineering Student Attitudes: A Cross-Institutional Study

Resource Title: Gender and Ethnicity Differences in Freshman Engineering Student Attitudes: A Cross-Institutional Study

Description/Annotation: Study of attitudes of freshman engineering students, including African American, Asian Pacific, and Hispanic students, across 17 institutions to determine how attitudes affect attrition in engineering programs. Self-confidence measures were lower in females but changed over the course of the year by institution.

Author Last Name: Besterfield-Sacre

Author First Name: Mary

Additional Author: Moreno

: Magaly

Additional Author: Shulman

: Larry J.

Additional Author: Atman

: Cynthia J.

Publication Date: 2001, Oct

Page Numbers: 477-489

Publication Title: Journal of Engineering Education

Volume: 90

Issue: 4

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender and Expressions of Dissatisfaction: A Study of Complaining in Mixed-Gendered Student Work Groups

Resource Title: Gender and Expressions of Dissatisfaction: A Study of Complaining in Mixed-Gendered Student Work Groups

Description/Annotation: This research addresses the common stereotype that women complain more than men. Defining complaint as the expression of personal dissatisfaction resulting from a disconfirmation of expectancies, the researchers analyzed conversations from three mixed-gendered student writing teams. The results indicate that, while the men and women in this sample made equivalent numbers of complaints, they used complaints for different reasons. Women were more likely than men to use complaints as an indirect request for action, while men were more likely to use complaints to excuse behavior or to make themselves seem superior. Marginal differences were also found between the types of complaints African-American and European-American women uttered. These results may suggest that the stereotype that women complain more than men has less to do with the number of complaints uttered and more to do with the different functions men and women attempt to accomplish by complaining. Funded by NSF GSE under award #0225186. Funded by NSF GSE under award #0225186.

Author Last Name: Wolfe

Author First Name: Joanna

Additional Author: Powell

: Elizabeth

Publication Date: 2006

Page Numbers: 13

Publication Title: Women and Language

Volume: 29

Issue: 2

Source: Women and Language

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors » Self-perception

Gender and Graduate School: Engineering Students Confront Life after the B. Eng.

Resource Title: Gender and Graduate School: Engineering Students Confront Life after the B. Eng.

Description/Annotation: Exploratory questionnaire at McGill University examining why students decide whether or not to pursue graduate studies in engineering. Authors suggest that faculty interactions with students to encourage and inform them on how to pursue graduate studies matters. Practice recommendations are relevant to engineering school faculties.

Author Last Name: Baker

Author First Name: Sarah

Additional Author: Tancred

: Peta

Additional Author: Whitesides

: Sue

Publication Date: 2002, Jan

Publication Title: Journal of Engineering Education

Source: ASEE

Database Name: Posted with permission

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Gender and Information Technology Management Education

Resource Title: Gender and Information Technology Management Education

Description/Annotation: This study examines a cohort of 309 students who entered the 4 year Bachelor of Commerce in Information Technology in 2001. It provides a statistical analysis of the relationship between various measures of high school performance, including their final mark in each of English, algebra, finite math and calculus, the average of their 'Best 6' courses and their overall average. The study reveals that the average grade in their Best 6 courses is the strongest, although imperfect, predictor of final University CGPA. Despite the emphasis placed on mathematics by Universities and information technology scholars, final CGPA showed no significant correlation with calculus, algebra and finite mathematics.

Author Last Name: Cukier
Author First Name: Wendy
Additional Author: Cody
: Susan
Additional Author: O'Reilly
: Norman
Publication Date: 2005, Nov
Page Numbers: 65
Publication Title: International Journal of Learning
Volume: 12
Issue: 7
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#)
» [Retention](#)

Gender and Information Technology: Moving Beyond Access to Co-Create Global Partnership

Resource Title: Gender and Information Technology: Moving Beyond Access to Co-Create Global Partnership

Description/Annotation: The exponential growth of technology and concurrent information revolution is creating a tremendous cultural shift on a global scale. However, the direction of that shift is being determined by those privileged few who participate. Women and people of color remain underrepresented as developers, users and beneficiaries of technology.

Using gender as a starting point, **Gender and Information Technology: Moving Beyond Access to Co-Creat Global Partnership** offers an interdisciplinary, social systems perspective on how shifting from a dominator social system towards a partnership system--as reflected in four primary social institutions (communication, media, education, and business)--might help us move beyond the simplistic notion of access to information technology towards partnership in co-creating a real digital revolution worldwide. This significant, compelling title defines core roots of the problem while proposing solutions in which we can all participate.

Author Last Name: Kirk
Author First Name: Mary
Publisher: IGI Global
Publisher Location: Hershey, PA, USA
Publication Date: September 30, 2008
Page Numbers: 1-350
Source Type: External publisher resource

Connected Advocates: [NSF: Gender in STEM Organizations Projects & Programs FAQs: Resources](#) Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#)

Gender and Mentoring of Faculty in Science and Engineering

Resource Title: Gender and Mentoring of Faculty in Science and Engineering
Description/Annotation: This article details a study which advances understanding of faculty's mentoring of other faculty, by gender, in science and engineering. The empirical analyses are grounded in a conceptual framework about the importance of individual and organisational

characteristics in explaining faculty performance, including mentoring. Results indicate that higher levels of rank significantly increase the likelihood of being a mentor among both women and men; while being a principal investigator is significant for men only.

Author Last Name: Fox
Author First Name: Mary Frank
Additional Author: Fonseca
:
Carolyn
Publication Date: 2006
Page Numbers: 460-483
Publication Title: International Journal of Learning and Change
Volume: 1
Issue: 4
Source: InderScience Publishers
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Organizational Culture](#)

Gender and Organizational Culture: Correlates of Companies' Responsiveness to Fathers in Sweden

Resource Title: Gender and Organizational Culture: Correlates of Companies' Responsiveness to Fathers in Sweden

Description/Annotation: This study explores support for men's participation in child care in Sweden from their employers and the effect this has in gender equity within the workforce. Results show that further work is needed for women to be treated equally in the workforce.

Author Last Name: Haas
Author First Name: Linda
Additional Author: Hwang
:
Philip

Publication Date: 2007, Feb
Page Numbers: 52-79
Publication Title: Gender & Society
Volume: 21
Issue: 1
Source: Sage
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#)

Gender and Physics: A Theoretical Analysis

Resource Title: Gender and Physics: A Theoretical Analysis

Description/Annotation: This article argues that the objections raised by Koertge (1998), Gross and Levitt (1994), and Weinberg (1996) against feminist scholarship on gender and physics are unwarranted. The objections are that feminist science studies perpetuate gender stereotypes, are irrelevant to the content of physics, or promote epistemic relativism. The author argues that the concept of gender, as it has been developed in feminist theory, is a key to understanding why the first objection is misguided. Instead of reinforcing gender stereotypes, feminist science studies scholars can formulate empirically testable hypotheses regarding local and contested beliefs about gender. The author also argues that a social analysis of scientific knowledge is a key to understanding why the second and the third objections are misguided. The concept of gender is relevant for understanding the social practice of physics, and the social practice of physics can be of epistemic importance. Instead of advancing epistemic relativism, feminist science studies scholars can make important contributions to a subfield of philosophy called social epistemology.

Author Last Name: Rollin
Author First Name: Kristina
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7

Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Gender and physics: feminist philosophy and science education

Resource Title: Gender and physics: feminist philosophy and science education
Description/Annotation: This paper introduces recent philosophical work in social epistemology to argue that the predominance of certain styles of doing science is not good for science. The author argues that scientific communities would benefit from greater diversity in styles of doing science.
Author Last Name: Rolin
Author First Name: Kristina
Publication Date: 2008, Nov
Page Numbers: 1111-1125
Publication Title: Science & Education
Volume: 17
Issue: 10
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational](#)
[Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender and Race/Ethnicity in Engineering: Preliminary Findings from the Project to Assess Climate in Engineering

Resource Title: Gender and Race/Ethnicity in Engineering: Preliminary Findings from the Project to Assess Climate in Engineering

Description/Annotation: This paper discusses the generalizability of the Project to Assess Climate in Engineering (PACE) findings, respondent demographics and describes some of the preliminary analysis regarding climate, confidence and risk of attrition issues for African Americans, Hispanics, Whites and men and women. Analyses confirm that students across these demographic groups have very different experiences. The findings provide additional evidence for the importance of looking at the intersection of gender and race and for separating racial and ethnic groups in analyses instead of grouping them into one under-represented minority category. The intersection of gender and race showcases the diversity of engineering student experiences and point to ways educators could re-think their programs and practices to improve the student learning environment and retention rates.

Author Last Name: Litzler

Author First Name: Elizabeth

Additional Author: Jaros

: Stephanie

Additional Author: Brainard

: Suzanne

Additional Author: Metz

: Susan

Publication Date: 2010

Publication Title: ASEE Annual Conference & Exposition

Source: University of Washington

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction Educational Factors](#) » [Retention](#)

Gender and race: Stereotyping, coping selfefficacy and collective self-esteem in the CSET undergraduate pipeline

Resource Title: Gender and race: Stereotyping, coping selfefficacy and collective self-esteem in the CSET undergraduate pipeline

Description/Annotation: This paper presents findings on the effects of gender and race in the undergraduate pipeline of the computing disciplines through the more proximal impacts of stereotyping, coping self-efficacy and collective self-esteem. Data were collected in Fall 2004 from 1,208 computing discipline and 581 non-computing discipline students attending forty-two colleges and universities across the United States.

Author Last Name: Lopez

Author First Name: A.M.

Additional Author: Zhang

: Kun

Additional Author: Lopez

: F.G.

Publication Date: 2008

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#)

Gender and Satisfaction with the Cooperative Education Experience in Engineering

Resource Title: Gender and Satisfaction with the Cooperative Education Experience in Engineering

Description/Annotation: This study investigated gender differences in job satisfaction following the first term of a cooperative education program in

engineering. Using data from a survey of freshmen, this study tested hypotheses about gender differences in the co-op job experience and the correlates of co-op job satisfaction. Gender-based predictive models of job satisfaction are presented.

Author Last Name: Wilkinson
Author First Name: Karen R.
Additional Author: Sullivan
:
: Laura L.
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Gender and Technology in Education: A Research Review

Resource Title: Gender and Technology in Education: A Research Review
Description/Annotation: A 40-page research review and annotated, searchable bibliography with over 700 entries that relate to gender, technology, and education. Created in 2005, with topic areas such as societal influences; age, stage, and pipeline issues; experience, attitudes, and use patterns; and in the classroom, among others. A well-organized overview of the topic of gender and technology.
Author Last Name: Sanders
Author First Name: Jo
Publication Date: 2005
Page Numbers: 1-40
Source: Jo Sanders

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender and Technology in Education: A Research Review

Resource Title: Gender and Technology in Education: A Research Review

Description/Annotation: This literature review presents a comprehensive view of how society's view of gender and technology impacts education. In addition to societal issues, it includes an examination of age, stage, pipeline issues, experience, attitudes, use patterns, and classroom issues. There is also a section which looks at interventions, teacher training and departmental change efforts. An abbreviated version of this research review appears in the "Handbook of Gender in Education" by Chris Skelton, Becky Francis, and Lisa Smulyan (editors), Sage Publications, London, in 2006.

Author Last Name: Sanders

Author First Name: Jo

Publication Date: 2005, Jun

Source: Jo Sanders

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender and Technology in Hong Kong: A Study of Pupils' Attitudes Toward Technology

Resource Title: Gender and Technology in Hong Kong: A Study of Pupils' Attitudes Toward Technology

Description/Annotation: This paper reports on a study of Hong Kong pupils' attitudes toward technology. Items in a survey distributed to nearly 3,500 junior secondary school students were used to gauge their attitudes toward several areas of technology. Questions related to parents' careers and domestic influences were also asked. The analysis revealed that significant differences existed between girls and boys in many of the items.

Author Last Name: Volk

Author First Name: Kenneth S.

Additional Author: Yip

: Wai Ming

Publication Date: 1999

Page Numbers: 57-71

Publication Title: International Journal of Technology and Design Education

Volume: 9

Issue: 1

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Gender and Technology in the Liberal Arts: Aptitudes, Attitudes, and Skills Acquisition

Resource Title: Gender and Technology in the Liberal Arts: Aptitudes, Attitudes, and Skills Acquisition

Description/Annotation: In May 2003, the Technology Edge Research Project completed a major study of undergraduate liberal arts students and their attitudes concerning the technology skills that they have gained during university. This report builds upon the findings of the Technology Edge Research Project's preliminary needs assessment;

Author Last Name: Butler

Author First Name: Terry
Additional Author: Ryan
: Peter
Additional Author: Chao
: Tracy
Publication Date: 2005
Publication Title: Journal of Information Technology Education
Volume: 4
Source: JITE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Gender and the relationship between job experiences and psychological distress: A study of dual-earner couples.

Resource Title: Gender and the relationship between job experiences and psychological distress: A study of dual-earner couples.
Description/Annotation: Study of gender-role ideologies (GRI) of dual-earning couples.
Author Last Name: Barnett
Author First Name: R. C.
Additional Author: Marshall
: N. L.
Additional Author: Raudenbus
: S. W.
Additional Author: Brennan
: R. T.
Publication Date: 1993, May

Page Numbers: 794-806
Publication Title: Journal of Personality and Social Psychology
Volume: 64
Issue: 5
Source: Wellesley College
Database Name: PubMed
Source Type: Abstract, Review, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Organizational Culture Individual Beliefs and Behaviors](#) » [Self-perception](#)

Gender and Web 2.0 technology awareness among ICT teachers

Resource Title: Gender and Web 2.0 technology awareness among ICT teachers
Description/Annotation: This study examines gender differences in ICT teachers' usage of Web 2.0 applications with respect to their awareness components (actual behavior, attitude, ease of use, perceived usefulness, etc.)
Author Last Name: Top
Author First Name: Ercan
Additional Author: Yukselturk
: Erman
Additional Author: Cakir
: Recep
Publication Date: 2011, Sep
Page Numbers: E106-E109
Publication Title: British Journal of Educational Technology
Volume: 42
Issue: 5
Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Asymmetries Encountered in the Search and Exploration of Mining Engineering Program Web Sites: A Portrayal of Posture and Roles

Resource Title: Gender Asymmetries Encountered in the Search and Exploration of Mining Engineering Program Web Sites: A Portrayal of Posture and Roles

Description/Annotation: This paper discusses a study of gender asymmetries in engineering. Photographs found in the search for and exploration of 13 university mining engineering department web sites were studied for their asymmetries of power by analyzing the role and posture of men and women in the photographs. The web site photographs showed a higher rate of women occupying student roles than men did. Implications of portraying a nonequitable power structure between men and women in the search for and exploration of mining engineering web sites are discussed, including a recommendation that all academic departments should examine the portrayal of gender on their web sites.

Author Last Name: Banning

Author First Name: James H.

Additional Author: Sexton

: Julie

Additional Author: Most

: David E.

Additional Author: Maler

: Shelby

Publication Date: 2007

Page Numbers: 165-174

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences](#) » [Media & Entertainment Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender at Work Within the Software Industry: An Indian Perspective

Resource Title: Gender at Work Within the Software Industry: An Indian Perspective

Description/Annotation: This study examines the impact of the massive growth of the software industry on women's work in the state of Kerala, India, where there are high claims for social development, especially for women. The study indicates that although women tend to possess equal or better credentials than men, the nature of the labor market often renders it difficult for women to progress through their careers compared with men. The project-based, competitive nature of software development reproduces a masculine culture, which further interacts with the different career patterns of women and social norms and tends to disadvantage women.

Author Last Name: Arun
Author First Name: Shoba
Additional Author: Arun
: T.G.
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Career Factors Career Factors » Organizational Culture Career Factors » Professional
Development Career Factors » Stereotype Threat

Gender Attributions of Science and Academic Attributes: An Examination of Undergraduate Science, Mathematics, and Technology Majors

Resource Title: Gender Attributions of Science and Academic Attributes: An Examination of Undergraduate Science, Mathematics, and Technology Majors

Description/Annotation: In this study, questionnaire data examined the relationship between gender attributions of science and academic attributes for undergraduate science, mathematics, and technology majors from the perspective of gender schema theory. Female and male respondents perceived that (a) the role of scientist was sex typed as masculine, (b) their majors were more valuable for members of their gender than for those of the opposite gender, (c) their majors were more valuable for themselves than for members of their gender in general. Androgynous attributions of scientists and the value of one's major for women predicted value for oneself, major confidence, and career confidence, and masculine attributions of scientists predicted class participation for female respondents. Feminine attributions of scientists predicted graduate school intent; value for women predicted major confidence and subjective achievement, and value for men predicted value for oneself, course confidence, and career confidence for male respondents.

Author Last Name: Hughes

Author First Name: W. Jay

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 1

Source: Begell House

Source Type: Abstract, Available for Sale

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational](#)
[Factors](#) [Cultural Influences](#) » [Stereotype Threat](#)

Gender Bias in College Admissions Tests

Resource Title:	Gender Bias in College Admissions Tests
Description/Annotation:	This brief online article gives an overview of gender bias in test scores for the two common college entrance exams, the ACT and the SAT, along with the graduate school entrance exam, the GRE. These exams are contrasted in terms of gender bias in scores and some of the reasons for bias are discussed, including biased test questions, the multiple-choice format of the exams, penalties for guessing, and time limits. Finally, the article briefly discusses the responses of the test makers to the gender gap.
Author Last Name:	FairTest
Publisher:	FairTest
Publisher Location:	Boston, MA
Publication Date:	2007
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical](#) Categories: [Educational Factors](#) »
[Admissions Bias](#) [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Bias Learning Project

Resource Title:	Gender Bias Learning Project
Description/Annotation:	This on-line gender bias training from The Center for WorkLife Law teaches you to identify four basic patterns of gender bias, as well as survival strategies for handling each type of bias.
Web site Link:	Link to Resource
More:	The Gender Bias Learning Project is housed within the Center for WorkLife Law at UC Hastings College of the Law.
Resources:	Resources include: <ul style="list-style-type: none">• Training Videos: Gender Bias, Bias Patterns, and Strategies• Examples of Promising Practices to retain women in academia• A risk management legal brief for colleges and universities

- The business case for addressing gender bias on an institutional level.

Site Access Details: This is a publicly accessible site.

Partners and Funding: This is a project of the Center for WorkLife Law UC Hastings College of the Law, with support from a NSF ADVANCE leadership grant.

Resource Type Categories: [Database/Tool](#) » [Teaching Tools Website/Portal](#) Topical Categories: [Cultural Influences Cultural Influences](#) » [Gender Diversity Cultural Influences](#) » [Implicit Bias](#)

Gender Conception and the Chilly Road to Female Undergraduates' Persistence in Science and Engineering Fields

Resource Title: Gender Conception and the Chilly Road to Female Undergraduates' Persistence in Science and Engineering Fields

Description/Annotation: This study focuses on the role of identity in 26 women's decisions to persist or leave their science & engineering (S&E) undergraduate degree at the university level. The study utilizes multiple conceptions of identity negotiation to identify how each participant negotiated her own personal identity with that of the S&E departmental culture of which she was a part. The findings reveal that only women who participate in redefinition strategies related to their marginalized status are able to persist in S&E.

Author Last Name: Hughes

Author First Name: Roxanne

Publisher: Begell House, Inc

Publisher Location: Redding, CT

Publication Date: 2012

Page Numbers: 215-234

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 18

Issue: 3

Source: Journal of Women and Minorities in Science and Engineering

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender Differences Across Engineering Majors

Resource Title: Gender Differences Across Engineering Majors

Description/Annotation: This paper addresses how the women in majors that are more commonly attracting women differ from women in majors with proportionately fewer women. The paper draws on data aggregated from surveys collected during the last six years from engineering students at Rowan University. It compares women in mechanical and electrical/computer engineering, to women in chemical and civil/environmental engineering, where the proportions of women are larger. Students are compared in terms of their academic and family backgrounds, whether they come in with different orientations to engineering (including engineering self-confidence and expectations from the engineering degree), and whether they exhibit different levels or types of satisfaction with the engineering major.

Author Last Name: Hartman

Author First Name: Moshe

Additional Author: Hartman

: Harriet

Additional Author: Kadlowee

: Jennifer

Publication Date: 2007

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study](#)

Gender Differences and Intragender Differences in Computer Science Students: Are Female CS Majors More Similar to Male CS Majors or Female Nonmajors?

Resource Title:	Gender Differences and Intragender Differences in Computer Science Students: Are Female CS Majors More Similar to Male CS Majors or Female Nonmajors?
Description/Annotation:	This paper presents the findings of a study investigating a) differences between female computer science (CS) majors and female nonmajors; and b) gender differences in CS students. Researchers compared female CS majors, female nonmajors, male CS majors, and male nonmajors. Authors found evidence for substantial gender differences on social psychological variables such as values, interests, and computer self-efficacy. Authors discuss the implications of these findings for women's underrepresentation in CS.
Author Last Name:	Beyer
Author First Name:	Sylvia
Additional Author:	Haller
:	Susan
Publication Date:	2006
Page Numbers:	337-365
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	12
Issue:	4
Source:	Begell House
Source Type:	Abstract, Available for sale

Gender Differences and Student Learning

Resource Title: Gender Differences and Student Learning

Description/Annotation: This 53-page paper was presented at the 2003 Annual Meeting of the American Educational Research Association and reports on a study of gender issues in public education from data collected in the Edina Public Schools in Minnesota. The authors discuss gender differences in achievement overall and in particular subjects, along with behavioral differences. This study offers a good overall snapshot of the differences between boys and girls in terms of learning in adolescence, the age when differences become most prominent.

Author Last Name: Du

Author First Name: Yi

Additional Author: Weymouth
: Christine M.

Additional Author: Dragseth
: Kenneth

Publisher: American Educational Research Association

Publication Date: 2003

Page Numbers: 53

Source: ERIC

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Individual Beliefs and Behaviors](#) »
[Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#)

Gender Differences at Critical Transitions in the Careers of Science, Engineering and Mathematics Faculty

Resource Title: Gender Differences at Critical Transitions in the Careers of Science, Engineering and Mathematics Faculty

Description/Annotation: This study by the National Research Council examines the status of women in STEM fields at research universities. The study acknowledges that while women are underrepresented in the applicant pool, they are interviewed and hired at rates equal to or higher than for men. The study also found that while women were underrepresented in tenure-track positions, women in those positions were awarded tenure at rates equal to or higher than their male colleagues. In addition, the study looked at gender differences with regard to access to institutional resources, tenure, salary, climate/interactions with colleagues and grant funding/nominations & awards, and offers for positions at other institutions. This study, sponsored by the National Science Foundation at the request of the US Congress, utilized surveys of women in 6 STEM disciplines at 89 institutions along with testimony and data from federal agencies, professional organizations, studies and institutions.

Author Last Name: Committee on Gender Differences in the Careers of Science, Engineering, and Mathematics Faculty

Additional Author: Committee on Women in Science, Engineering, and Medicine Policy and Global Affairs

Additional Author: Committee on National Statistics Division of Behavioral and Social Sciences and Education

Publisher: The National Academies Press

Publisher Location: Washington, DC

Publication Date: 2010

Page Numbers: 1-384

Publication Title: Gender Differences at Critical Transitions in the Careers of Science, Engineering and Mathematics Faculty

Source: NAP

Source Type: Summary, Available for Sale

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Career Factors » Salary Career Factors » Tenure Policies & Practices

Gender Differences in a Computer Science Course: A Spearmanian Perspective

Resource Title: Gender Differences in a Computer Science Course: A Spearmanian Perspective

Description/Annotation: This study analyzes gender performance differences in a first-level New Zealand university course in computer science. The regression model is based on the theoretical constructs of general academic ability and specific academic ability. The analysis, which incorporates corrections to the standard errors to control for undesirable properties in the residuals, reveals a large, and unexpected, gender difference.

Author Last Name: Hefford

Author First Name: Nigel A.

Additional Author: Keef

: Stephen P.

Publication Date: 2004, Jan

Page Numbers: 69-86

Publication Title: Journal of Educational Computing Research

Volume: 30

Issue: 1

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences in an On-line Learning Environment

Resource Title: Gender Differences in an On-line Learning Environment

Description/Annotation: Paper evaluates interactions in an online learning environment of both male and female post-graduate students. Gender differences in frequency and depth of communications noted.

Author Last Name: Barrett

Author First Name: E.

Additional Author: Lally

: V.
Publisher: Wiley-Blackwell
Publication Date: 1999, Mar
Page Numbers: 48-60
Publication Title: Journal of Computer Assisted Learning
Volume: 15
Issue: 1
Source: University of Sheffield
Database Name: Wiley InterScience
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences in Attitudes toward Environmental Science

Resource Title: Gender Differences in Attitudes toward Environmental Science
Description/Annotation: This study examined the role of gender in the areas of environmental education that included environmental knowledge, attitudes, behaviors, and comfort levels in the outdoors. The current study was part of a larger study designed to explore the effects of a treatment that consisted of 14 weeks of outdoor lessons conducted in the schoolyard as compared with a control group of students who had 14 weeks of traditional classroom environmental education lessons.
Author Last Name: Carrier
Author First Name: Sarah J.
Publication Date: 2007, Nov
Page Numbers: 271-278
Publication Title: School Science and Mathematics
Volume: 107
Issue: 7

Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Cultural Influences » Gender Diversity

Gender Differences in Attitudes towards Information Technology among Malaysian Student Teachers: A Case Study at Universiti Putra Malaysia

Resource Title: Gender Differences in Attitudes towards Information Technology among Malaysian Student Teachers: A Case Study at Universiti Putra Malaysia

Description/Annotation: This article presents a quantitative study on gender differences in attitudes toward the usage of Information Technology (IT) related tools and applications. The study was conducted at Universiti Putra Malaysia, Malaysia, with 73 female and 29 male student teachers involved as participants. There were no significant differences between female and male student teachers when the pre- and post-test mean scores were compared. Both genders exhibited the same levels of attitudes before and after undergoing the comprehensive IT course. This suggests that the exposure to IT did not contribute to any significant gender disparity.

Author Last Name: Wong
Author First Name: Su Luan
Additional Author: Hanafi
:
Atan
Publication Date: 2007
Page Numbers: 158-169
Publication Title: Educational Technology & Society
Volume: 10
Issue: 2
Source: IFETS

Link Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences in Biological Engineering Students

Resource Title: Gender Differences in Biological Engineering Students

Description/Annotation: This paper discusses a study exploring gender differences in the interests and attitudes of biological engineering students. Undergraduate engineering students participated in a voluntary survey designed to determine whether males and females received different academic preparation, prior to entering engineering. Second, in acknowledgement of entering engineering students fewer “hand’s on” mechanical skills compared to computer skills, the survey probed these areas and examined their relationship to three fundamental engineering activities (designing, building, and analyzing.) Finally, the survey takes into account non-school influences such as family, geographic location and type of community and their relationship to academic interests. Surprisingly few differences were found in the data based on gender. Based on several measures, females were equally prepared for biological and agricultural engineering when compared with males. However, differences were found in “hands-on” preparation and family background.

Author Last Name: Schreuders

Author First Name: Paul

Additional Author: Rutherford
:
Brian

Additional Author: Cox
:
Katrina

Additional Author: Mannon
:
Susan

Publication Date: 2006

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Link Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender differences in confidence levels, group interactions, and feelings about competition in an introductory robotics course

Resource Title: Gender differences in confidence levels, group interactions, and feelings about competition in an introductory robotics course

Description/Annotation: This paper discusses an evaluation exploring gender differences in self-confidence levels related to robotic tasks, feelings toward competitions as a component of the course, and differences in the way males and females interact within groups. The course, a general freshman introduction to engineering, targeted for this evaluation required students to complete robotic challenges while working within groups and participating in design competitions. Assessment was conducted through interviews, observations, and written questionnaires.

Author Last Name: Milto

Author First Name: E.

Additional Author: Rogers

: C.

Additional Author: Portsmore

: M.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#)

Behaviors Educational Factors » Pedagogy & Instruction Individual Beliefs and Behaviors » Self-perception

Gender Differences in Elements of the Undergraduate Experience that Influence Satisfaction with the Engineering Major and the Intent to Pursue Engineering as a Career

Resource Title:	Gender Differences in Elements of the Undergraduate Experience that Influence Satisfaction with the Engineering Major and the Intent to Pursue Engineering as a Career
Description/Annotation:	This study identified gender differences on indicators of the undergraduate experience including faculty-related and student-related variables, as well as measures of satisfaction with the institutional environment that are related to satisfaction with the engineering major and intent to pursue a career in engineering ten years from now. The mixed methods approach used for this investigation involved nine institutions with engineering undergraduate degree programs.
Author Last Name:	Amelink
Author First Name:	Catherine T.
Additional Author:	Creamer
:	Elizabeth G.
Publication Date:	2010, Jan
Page Numbers:	81-92
Publication Title:	Journal of Engineering Education
Volume:	99
Issue:	1
Source:	Wiley
Source Type:	A

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Gender Differences in Expressed and Measured Interests in Engineering-Related Fields Over a 30-Year Span

Resource Title: Gender Differences in Expressed and Measured Interests in Engineering-Related Fields Over a 30-Year Span

Description/Annotation: This study examines gender differences and historical trends of high school student interest in engineering based on ACT data on expressed interest compared with that of students' and ability. Changes have been observed in the interest in engineering fields over time most likely because of societal influences. These influences are especially seen in computer related fields causing speculation that both males and females were influenced by the dot com era but that only male interest was piqued due to the rise of computer games in the late 1990's.

Author Last Name: Iskander

Author First Name: Tiffany

Additional Author: Gore

: Paul

Additional Author: Furse

: Cynthia

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differences in Factors that Promote an Interest in IT among High School and Early and Late College Students

Resource Title: Gender Differences in Factors that Promote an Interest in IT among High School and Early and Late College Students

Description/Annotation: This paper compares gender differences in the role of parental support and interaction with others about career options in IT at three points in time (during high school, early college, and late college). Results indicate that women are not having interactions

about career options that contribute to an interest in IT and that by the third and fourth year of college, those enrolled in a major leading to a career in IT do not perceive significant positive support from parents or from others outside of the family. Men have fewer interactions about career options, but perceive continued positive support from parents and other family members about their interest in IT.

Author Last Name: Creamer
Author First Name: Elizabeth G.
Additional Author: Meszaros
:
Peggy S.
Publication Date: 2009
Publication Title: AMCIS 2009 Proceeding
Source: AIS Electronic Library
Source Type: Abstract

Topical Categories: [Cultural Influences Educational Factors Individual Beliefs and Behaviors » Family & Peers Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Gender Differences in Faculty Pay and Faculty Salary Compression

Resource Title: Gender Differences in Faculty Pay and Faculty Salary Compression

Description/Annotation: This 17-page article presents the results of data from a unionized, public, liberal-arts college that distinguishes between merit raises and cost-of-living raises. From these data, it was found that the difference in male and female salaries was due to the difference in rank and years of service. Salary compression in the upper rank was attributed to cost-of-living increases not keeping up with inflation and increasing salaries for new faculty. These data present a new look at an important topic, and would be important for any study in gender equity in faculty pay.

Author Last Name: Burke
Author First Name: Kathleen

Additional Author: Duncan
: Kevin
Additional Author: Krall
: Lisa
Additional Author: Spencer
: Deborah
Publisher: Elsevier
Publication Date: 2005, Apr
Page Numbers: 165-181
Publication Title: The Social Science Journal
Volume: 42
Issue: 2
Source: ScienceDirect
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Gender Differences in Firm Size, Growth, and Persistence: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Resource Title: Gender Differences in Firm Size, Growth, and Persistence: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Description/Annotation: This 7-page briefing report from the National Center for Women and Information Technology (NCWIT) is the first report of the Entrepreneurial Report Series. This report reviews literature to determine the differences in the success of firms started by men and women. According to the report, women's firms are at least no more successful than men's, but few studies examine high-tech or IT fields. The full report is available in PDF format.

Author Last Name: Aspray
Author First Name: William
Additional Author: Cohoon
:
J. McGrath
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2007, Feb
Page Numbers: 1-7
Publication Title: National Center for Women and Information Technology
Entrepreneurial Report Series
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Gender Differences in First-Grade Mathematics Strategy Use: Parent and Teacher Contributions

Resource Title: Gender Differences in First-Grade Mathematics Strategy Use: Parent and Teacher Contributions

Description/Annotation: This 27-page article contains the results of interviews with first-grade students, teachers, and parents. Boys were found to be influenced more heavily by teacher instruction and parent attitudes than girls were. In some cases, girls even were hurt by their interactions with teachers and their parents. This paper may be useful as a foundation for further research into classroom instruction and parent interaction.

Author Last Name: Carr
Author First Name: Martha
Additional Author: Jessop
:
Donna
Additional Author: Fuller

: Diana
Publisher: National Council of Teachers of Mathematics
Publisher Location: Reston, VA
Publication Date: 1999, Jan
Page Numbers: 20-46
Publication Title: Journal for Research in Mathematics Education
Volume: 30
Issue: 1
Source: JSTOR
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Gender differences in freshman engineering students' identification with engineering

Resource Title: Gender differences in freshman engineering students' identification with engineering

Description/Annotation: This paper presents findings from a survey that was developed and piloted to freshman engineering students to provide insight into the development of an engineer identity. Survey items, primarily comprised of open-ended questions, were developed based on prior interview data and analysis aimed at understanding factors pertinent to students identifying with engineering. Authors present comparative analyses of male and female responses of freshmen engineering students. Findings suggest that there are significant differences in how freshman students identify with engineering and with becoming an engineer.

Author Last Name: Pierrakos
Author First Name: O.
Additional Author: Beam
: T.K.
Additional Author: Watson

: H.
Additional Author: Thompson
: E.
Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Gender Differences in Graduate Students' Perspectives on the Culture of Science

Resource Title: Gender Differences in Graduate Students' Perspectives on the Culture of Science

Description/Annotation: In this study, gender differences in graduate students' perspectives on the culture of science were examined in two graduate departments (biology and chemistry) at a large research university. Data from a survey questionnaire from 170 students and interviews with 32 of them indicated that the culture of science as experienced by the participants of this study was characterized by competition, a narrow focus, and a belief in objectivity. The study shows that although women have greater access to careers in science, the culture of the scientific enterprise continues to be based on the masculine ideals of 17th-century England.

Author Last Name: Ferreira
Author First Name: Maria M.
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 2
Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career
Interest/Awareness

Gender Differences in High School Student's Views of Technology

Resource Title: Gender Differences in High School Student's Views of Technology

Description/Annotation: This research carried out an analysis of high school students' perceptions of technology and their intent to select an engineering/technology major in college in order to determine if there were any gender differences among them. The results of this study are that as a group, boys displayed higher confidence in performing technology tasks, showed more knowledge of technology, were more likely to consider technology work as fun and were more likely to consider technology majors for college compared to girls.

Author Last Name: Brake

Author First Name: Mary

Additional Author: Bhatnagar

: Kaninka

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career
Interest/Awareness

Gender Differences in Impression Management in Organizations: A Qualitative Review

Resource Title: Gender Differences in Impression Management in Organizations: A Qualitative Review

Description/Annotation: This 12 page report presents data supporting a theory that the use of impression management tactics in organizational contexts conformed to gender role expectations and that this was disadvantageous to women.

Author Last Name: Guadagno

Author First Name: Rosanna E.

Additional Author: Cialdini

: Robert B.

Publication Date: 2007, Apr

Page Numbers: 483-495

Publication Title: Sex Roles

Volume: 56

Issue: 7-8

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Gender Differences in In-class and Out-of-class Experiences that Influence the Intent to Complete an Engineering Degree

Resource Title: Gender Differences in In-class and Out-of-class Experiences that Influence the Intent to Complete an Engineering Degree

Description/Annotation: This study looks at gender differences in the career aspirations of undergraduates enrolled in engineering programs by examining the intent to remain enrolled in engineering as a major and the likelihood that students plan to be in engineering ten years from now. Indicators of in-class and out-of-classroom that are related to the career goals of students are also examined.

Author Last Name: Amelink

Author First Name: Catherine T.
Additional Author: Creamer
: Elizabeth G.
Publication Date: 2009
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differences in Individual and Teammate Performance Evaluations by Students on Engineering Design Teams

Resource Title: Gender Differences in Individual and Teammate Performance Evaluations by Students on Engineering Design Teams

Description/Annotation: Evaluations of team participation and of individual students' value to the team were conducted in a first-year engineering design course at a public university in the western United States. This study analyzes data from 866 students (232 women) in 22 classes during the period from spring 2002 through spring 2009. Researchers did not find significant differences between male or female students in either self-evaluation or actual performance. It was also found that, irrespective of gender, students who had a 5% higher self-evaluation score than their team evaluation score actually received lower course grades than those who undervalued their contribution to their team. These results indicate that small, engineering-focused institutions may provide a learning environment and underlying support system for women that result in greater self-efficacy; or they may indicate that this type of institution attracts women students who already have a strong commitment to the study of engineering and the necessary tenacity to succeed in this field.

Author Last Name: Van Tyne

Author First Name: Natalie
Additional Author: Van Tyne
: Chester J.
Additional Author: Van Tyne
: Kathryne
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception

Gender Differences in Introductory Atmospheric and Oceanic Science Exams: Multiple Choice Versus Constructed Response Questions

Resource Title: Gender Differences in Introductory Atmospheric and Oceanic Science Exams: Multiple Choice Versus Constructed Response Questions

Description/Annotation: An analysis of 295 male and 194 female examinations from introductory atmospheric and oceanic science courses is conducted to determine whether or not there exists gender differences in the performance on multiple choice versus constructed response sections of the exams.

Author Last Name: Weaver
Author First Name: Andrew J.
Additional Author: Raptis
: Helen
Publication Date: 2001, Jun
Page Numbers: 115-126
Publication Title: Journal of Science Education and Technology

Volume: 10
Issue: 2
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Differences in Introductory University Physics Performance: The Influence of High School Physics Preparation and Affective Factors

Resource Title: Gender Differences in Introductory University Physics Performance: The Influence of High School Physics Preparation and Affective Factors

Description/Annotation: Quantitative study to determine predictors of success in university physics courses. Math preparation was significant for both male and female students with family support and encouragement as additional factors affecting the performance of females.

Author Last Name: Hazari
Author First Name: Zahra
Additional Author: Tai
: Robert
Additional Author: Sadler
: Philip
Publisher: John Wiley & Sons, Inc.
Publisher Location: Hoboken, NJ
Publication Date: 2007
Page Numbers: 847-876
Publication Title: Science Education
Volume: 91
Issue: 6

Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors » Family & Peers Educational Factors » Formal Academic Preparation Individual Beliefs and Behaviors

Gender Differences in Learning Styles: Nurturing a Gender and Style Sensitive Computer Science Classroom

Resource Title: Gender Differences in Learning Styles: Nurturing a Gender and Style Sensitive Computer Science Classroom

Description/Annotation: This study empirically tested the sensitivity of a learning style instrument, the Gregorc Style Delineator (GSD), to gender in a sample of students who studied computer programming in Hong Kong secondary schools. Results indicated that females had higher preference for concrete sequential (CS) and abstract random (AR) compared with males. Males had higher preference for concrete random (CR) than females. From these results, we proposed learning style-based pedagogical practices to teach computer programming.

Author Last Name: Lau

Author First Name: Wilfred Wing Fat

Additional Author: Yuen

: Allan Hoi Kau

Publication Date: 2010

Page Numbers: 1090-1103

Publication Title: Australian Journal of Educational Technology

Volume: 26

Issue: 7

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences in Major Selection and Academic Success for Students Leaving Engineering

Resource Title: Gender Differences in Major Selection and Academic Success for Students Leaving Engineering

Description/Annotation: This paper discusses a study of the major selection and academic performance of students who matriculated in and subsequently left undergraduate engineering programs at the nine SUCCEED universities (Southeastern University and College Coalition for Engineering Education) from 1987 to 1996 to determine gender differences in these outcomes. Academic success after leaving engineering is characterized by three outcomes: graduation in the first non-engineering major, graduation after at least one additional change of major, and failure to graduate. The impact of gender and grade-point average (GPA) at the time of leaving engineering on major selection and subsequent academic success were investigated in a multicategory, logistic regression model. The results revealed a significant interaction effect between GPA and gender on students' post-engineering success.

Author Last Name: Zhang

Author First Name: Guili

Additional Author: Padilla

: Miguel A.

Additional Author: Anderson

: Timothy J.

Additional Author: Ohland

: Matthew W.

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender Differences in Math Performance

Resource Title:	Gender Differences in Math Performance
Description/Annotation:	Literature overview discusses trends in mathematical performance among K-16 students by gender in order to help inform discussions and initiatives related to addressing the gender gap in STEM fields. Environmental factors that impact math performance among females are briefly discussed. Accompanying information sheet focuses on applying statistical data related to gender differences in math performance for use by a variety of K-16 instructional professionals including those offering gender-based STEM programming, institutions offering STEM majors, and organizations involved in STEM outreach activities.
Author Last Name:	Amelink
Author First Name:	Catherine T.
Publisher:	SWE-AWE, NAE-CASEE
Publication Date:	2009
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Gender Differences in Mathematics and Science on a High School Proficiency Exam: The Role of Response Format

Resource Title:	Gender Differences in Mathematics and Science on a High School Proficiency Exam: The Role of Response Format
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Description/Annotation: Scores from mathematics and science sections of pilot forms of the Michigan High School Proficiency Test (HSPT) were examined for evidence of an interaction between gender and response format (multiple choice or constructed response). When students of all ability levels were considered, the interaction was small in science and nonexistent in mathematics. When only the highest ability students were considered, male students scored higher on the multiple-choice section, whereas female students either scored higher on the constructed-response section or the degree to which the male students scored higher was less on the constructed-response section.

Author Last Name: DeMars
Author First Name: Christine E.
Publication Date: 1998
Page Numbers: 279-299
Publication Title: Applied Measurement in Education
Volume: 11
Issue: 3
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Differences in Mathematics Performance: A Meta-Analysis

Resource Title: Gender Differences in Mathematics Performance: A Meta-Analysis

Description/Annotation: Meta-analysis of 100 studies to assess gender differences in math performance. Conclusions that there are only small differences in math performance by gender, but differences in female problem solving at the high school level is worthy of additional research.

Author Last Name: Shibley Hyde
Author First Name: Janet
Additional Author: Fennema

: Elizabeth
Additional Author: Lamon
: Susan J.
Publisher: American Psychological Association, Inc.
Publisher Location: Washington, D.C.
Publication Date: 1990
Page Numbers: 139-155
Publication Title: Psychological Bulletin
Volume: 107
Issue: 2
Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Gender Differences in Mathematics: an Integrative Psychological Approach

Resource Title: Gender Differences in Mathematics: an Integrative Psychological Approach

Description/Annotation: This book is a collection of reports on research in differences between men and women in mathematics performance. Males are shown to outperform females on high-stakes exams, but not in classroom performance. Higher performance on these exams tends to lead to more opportunities.

Author Last Name: Gallagher
Author First Name: Ann M.
Additional Author: Kaufman
: James C.
Publisher: Cambridge University Press
Publisher Location: Cambridge, UK

Publication Date: 2004
Page Numbers: 1-368
Source: Cambridge University
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Differences in Science Achievement

Resource Title: Gender Differences in Science Achievement

Description/Annotation: Literature overview facilitates access to current statistical data related to gender differences in science achievement among K-16 students and informs discussions and initiatives related to addressing the gender gap in science, technology, engineering, and mathematic (STEM) fields. Accompanying information sheet focuses on applying trends related to science achievement among males and females for use by instructional professionals in the K-16 setting and organizations offering STEM programs, including STEM educational outreach activities or gender-based initiatives within the educational setting.

Author Last Name: Amelink

Author First Name: Catherine T.

Publisher: SWE-AWE, NAE-CASEE

Publication Date: 2009

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Gender Differences in Student Academic Performance and Attitudes in an Introductory Engineering Course

Resource Title: Gender Differences in Student Academic Performance and Attitudes in an Introductory Engineering Course

Description/Annotation: This paper examines the gender differences in student academic performance and attitudes toward their education and themselves in an introductory engineering course. Student academic performance was evaluated by comparing course work scores between the two genders using assignments, projects, exams and class participation. The students' perceptions of the course with respect to course outcomes were measured by a survey at the end of the semester. The results showed that there were no significant difference between mean scores in the academic performance of the genders in the course. Average marks scored by students of either gender were almost equal. The results also indicated that academic performance in the course was affected by several factors such as student ability, motivation, the quality of secondary education obtained.

Author Last Name: Orabi

Author First Name: I.

Publication Date: 2007

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differences in Students' Perceptions of Information Technology as a Career

Resource Title: Gender Differences in Students' Perceptions of Information Technology as a Career

Description/Annotation: This paper reports on an investigation into first year students' perceptions of IT as a career. An exploratory study into male and female first year students' perceptions of the IT professional is presented. The participants included students studying the Bachelor of Business and Bachelor of Information Systems degrees at ACU National in Melbourne, Australia. The study

investigated the differences and similarities between the perceptions of males and females as well as where they came by those perceptions. The study found that the majority of students had chosen to drop IT as a subject at school by Year 10 of their schooling.

Author Last Name: Thomas
Author First Name: Theda
Additional Author: Allen
:
Alesha
Publication Date: 2006
Page Numbers: 165-178
Publication Title: Journal of Information Technology Education
Volume: 5
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differences in the Academic Performance and Retention of Undergraduate Engineering Majors

Resource Title: Gender Differences in the Academic Performance and Retention of Undergraduate Engineering Majors

Description/Annotation: This study examined the role of academic performance factors, and personality traits as measured by the Hogan Personality Inventory, in the academic success and retention of undergraduate engineering majors. With regard to academic performance, the academic measures of ACT score and high school GPA were significantly related to second semester GPA for both genders.

Author Last Name: Haemmerlie
Author First Name: Frances Montgomery
Additional Author: Montgomery
:
Robert L.

Publication Date: 2012, Mar
Page Numbers: 40
Publication Title: College Student Journal
Volume: 46
Issue: 1
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender Differences in the Attitudes of Students in Freshmen Engineering Courses

Resource Title: Gender Differences in the Attitudes of Students in Freshmen Engineering Courses

Description/Annotation: This paper compares the attitudes of female and male students in freshmen engineering courses in relation to how engineering benefits society. These traits were assessed using written surveys administered in first year engineering courses in environmental engineering (EVEN), civil engineering (CVEN), and general engineering (GEEN) at the University of Colorado at Boulder from 2004 to 2008. More revealing information was found in the reflective essays that the students wrote at the end of the semester summarizing their feelings about engineering and whether they plan to stay in the major or switch majors.

Author Last Name: Bielefeldt
Author First Name: Angela
Publisher: American Society for Engineering Education (ASEE)
Publication Date: 2009
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Gender Differences in the Careers of Academic Scientists and Engineers

Resource Title: Gender Differences in the Careers of Academic Scientists and Engineers

Description/Annotation: This study uses data from a nationally representative sample of recipients of doctorates in science and engineering (S&E) to examine gender differences for four critical outcomes that reflect successful movement along the postsecondary academic career path. These four critical outcomes are tenure-track placement, earning tenure, promotion to the rank of associate professor, and promotion to the rank of full professor.

Author Last Name: Rapoport

Author First Name: Alan I.

Additional Author: Bentley

: Jerome T.

Additional Author: Wise

: Donald E.

Publisher: National Science Foundation, Division of Science Resources Statistics

Publisher Location: Arlington, VA

Publication Date: 2004, Jun

Page Numbers: 174

Publication Title: NSF 04-323

Source: NSF

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Gender differences in the intention to use technology: A measurement invariance analysis

Resource Title:	Gender differences in the intention to use technology: A measurement invariance analysis
Description/Annotation:	Amongst the key issues in technology acceptance research is gender differences in their response towards technology. This study explores gender differences in the use of technology and analyzes measurement invariance between groups (eg, males and females).
Author Last Name:	Teo
Author First Name:	Timothy
Publication Date:	2010, Nov
Page Numbers:	E120-E123
Publication Title:	British Journal of Educational Technology
Volume:	41
Issue:	6
Source:	Wiley
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender Differences in the Learning Preferences of Engineering Students

Resource Title:	Gender Differences in the Learning Preferences of Engineering Students
Description/Annotation:	This paper compares responses of female and male engineering students to an Index of Learning Styles. This self-report forced-choice instrument classifies the learning preferences of the respondents on four scales: Active/Reflective, Sensing/Intuition,

Visual/Verbal and Sequential/Global. Both male and female students showed a clear preference for Active, Sensing, Visual, Sequential learning. However, the female students' learning preferences were significantly more Reflective, Verbal and Sequential than the males'. The teaching and presentation of most engineering courses would be more effective for the majority of students if they contained elements which appealed to all learning styles, which, these results suggest would require them to incorporate and emphasise more Active, Sensing, Visual and Global components.

Author Last Name: Rosati
Author First Name: P.A.
Publication Date: 1997
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences in the Perception and Use of an Informal Science Learning Web Site

Resource Title: Gender Differences in the Perception and Use of an Informal Science Learning Web Site

Description/Annotation: Final report to the NSF analyzing interactive web site (www.Whyville.net) designed to engage students in science. Girls (ages 10-15) tended to use the site as a social outlet and less as a means to master skills through science games.

Author Last Name: Aschbacher
Author First Name: Pamela R.
Publisher: California Institute of Technology
Publisher Location: Pasadena, CA
Publication Date: 2003
Page Numbers: 44

Source: California Institute of Technology

Source Type: Full text

Resource Type Categories: Articles/Reports » Web Resources Topical Categories: Educational Factors Educational Factors » Informal Academic Preparation

Gender Differences in the Values of Minority High School Students that Affect Engineering Discipline Choice & Recommendations for Attracting Minorities to Environmental Engineering

Resource Title: Gender Differences in the Values of Minority High School Students that Affect Engineering Discipline Choice & Recommendations for Attracting Minorities to Environmental Engineering

Description/Annotation: This paper details gender differences in the questions raised by students during an introduction to wastewater treatment session at a week long Engineering Explorations summer camp for minority high school students held at Michigan Technological University. The subjects and questions raised by the students in each session were recorded, the results of which reveal distinct value differences among males and females when choosing a future career. Suggestions are made for ways to attract minorities to the discipline by focusing on their values in recruitment efforts.

Author Last Name: Paterson

Author First Name: Kurt

Additional Author: Jarvie

: Michelle

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differences in Types of Assignments Preferred: Implications for Computer Science Instruction

Resource Title:	Gender Differences in Types of Assignments Preferred: Implications for Computer Science Instruction
Description/Annotation:	A study analyzing survey results of more than 850 students enrolled in college computer courses was conducted. The survey included, among other things, questions about students' preferences for a programming assignment. This study reports the preferences of all students (includes 65 different majors) answering the survey question and also compares the results with the CS majors. Gender differences were evident from the study, and implications for developing assignments to better motivate and involve various groups of students in Computer Science programming classes are discussed.
Author Last Name:	Wilson
Author First Name:	Brenda Cantwell
Publication Date:	2006
Page Numbers:	245-255
Publication Title:	Journal of Educational Computing Research
Volume:	34
Issue:	3
Source:	ERIC
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Differences

Resource Title:	Gender Differences
Description/Annotation:	Brief discussion of WEPAN study finding that female engineering undergraduates feel less confidence in their abilities

than male students. Offers positive effect of the MentorNet program in improving student confidence.

Author Last Name: Brindley
Author First Name: David
Publisher: ASEE
Publication Date: 1999, Oct
Publication Title: Briefings
Source: ASEE
Database Name: PRISM
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Differentials in School Computer Technology Support Roles: An Analysis

Resource Title: Gender Differentials in School Computer Technology Support Roles: An Analysis

Description/Annotation: This study looks at the presence and role of women in school technology support roles by surveying technology coordinators (n = 129) from the upper plains region of the United States. Data on job responsibilities, professional training, training quality, and task proficiency are gathered. Analysis shows that women are disproportionately underrepresented in school technology support roles.

Author Last Name: Hawkes
Author First Name: Mark
Additional Author: Brockmueller
:
Brad
Publication Date: 2003
Page Numbers: 31-45
Publication Title: Journal of Educational Technology Systems

Volume: 32
Issue: 1
Source: ResearchGate
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Stereotype Threat](#)

Gender Disparity in Engineering as a Function of Physics Enrollment and Its Implications for Civil Engineering

Resource Title: Gender Disparity in Engineering as a Function of Physics Enrollment and Its Implications for Civil Engineering

Description/Annotation: This paper focuses primarily on secondary education preparation in terms of both attitudes towards and enrollment levels in pre-engineering courses such as calculus, chemistry, and physics. Additional consideration is given to enrollment and achievement in advanced placement courses, as reflected in national examination rates. This paper concludes that secondary school participation and achievement in physics courses is a critical differential factor as one explanatory element of female engineering enrollment levels and provides specific recommendations as to how to increase interest, enrollment, and achievement in physics, including the segregation of entry-level engineering courses based on previous experience.

Author Last Name: Laefer

Author First Name: Debra F.

Publication Date: 2009, Jul

Page Numbers: 95-101

Publication Title: Journal of Professional Issues in Engineering Education and Practice

Volume: 135

Issue: 3

Source: ASCE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#)
» [Retention](#)

Gender Disparity in Science Education: The Causes, Consequences, and Solutions

Resource Title: Gender Disparity in Science Education: The Causes, Consequences, and Solutions

Description/Annotation: Title IX of the 1972 Education Amendments prohibits sex discrimination in schools. However, research conducted since this time has consistently revealed that gender discrimination in schools remains, especially in the areas of science and mathematics. Girls are not receiving the same quality, or even quantity, of education as their male classmates. This paper presents a large body of international scholarly literature that has developed to address gender disparity in science and science education.

Author Last Name: Tindall

Author First Name: Tiffany

Additional Author: Hamil

: Burnette

Publication Date: 2004

Page Numbers: 282

Publication Title: Education

Volume: 125

Issue: 2

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Implicit Bias](#)

Gender diversity changes in a small engineering discipline: materials science and engineering

Resource Title:	Gender diversity changes in a small engineering discipline: materials science and engineering
Description/Annotation:	This paper assesses publicly available data on the demographics of US materials science and engineering (MSE) programs to explore expectations of correlation between increased gender diversity at the graduate level and among faculty versus undergraduate gender diversity. Findings indicated that the percentage of women receiving bachelor's of science degrees in engineering (BSE) in MSE, and nearly all other engineering disciplines, was significantly lower in 2009 than in 2000.
Author Last Name:	Bowman
Author First Name:	Keith J.
Publisher:	Emerald Group Publishing Limited
Publisher Location:	Bingley, United Kingdom
Publication Date:	2011
Page Numbers:	127-144
Publication Title:	Equality, Diversity and Inclusion: An International Journal
Volume:	30
Issue:	2
Source:	Equality, Diversity and Inclusion: An International Journal
Source Type:	Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender diversity in management and firm performance: the influence of growth orientation and organizational culture

Resource Title: Gender diversity in management and firm performance: the influence of growth orientation and organizational culture

Description/Annotation: This 11 page article examines gender diversity in management and how it influences company performance. This particular research looked at management on all levels, not just top management in gathering data. In order to benefit from gender diversity, a supportive organizational culture must be present, along with other characteristics of the firm that are identified in the article. For industry leadership and management.

Author Last Name: Dwyer

Author First Name: Sean

Additional Author: Richard

: Orlando C.

Additional Author: Chadwick

: Ken

Publisher: University of Georgia

Publisher Location: Athens, GA

Publication Date: 2003, Dec

Page Numbers: 1009-1019

Publication Title: Journal of Business Research

Volume: 56

Issue: 12

Source: ScienceDirect

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Gender divisions across technology advertisements and the WWW: Implications for educational equity

Resource Title: Gender divisions across technology advertisements and the WWW: Implications for educational equity

Description/Annotation: This paper examines images and patterns of gender stereotypes within mediated and electronic advertisements that reach students online or when viewing computer software and educational television and questions decisions made in the construction of these images. The paper explains the importance of teachers, parents, and the community working together to promote gender equity in online advertising.

Author Last Name: Knupfer

Author First Name: Nancy Nelson

Publication Date: 1998

Page Numbers: 54-63

Publication Title: Theory Into Practice

Volume: 37

Issue: 1

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Gender Equality Helps Girls with Math, Study Says

Resource Title: Gender Equality Helps Girls with Math, Study Says

Description/Annotation: Short summary of article DIVERSITY: Culture, Gender, and Math by Guiso et al. in Science 30 May 2008: 1164-1165. High School boys outscored girls in math in the United States but girls performed just as well in Norway, Sweden, and other countries with the most economic equality.

Author Last Name: RedOrbit

Additional Author: The Philadelphia Inquirer

Publisher: Philadelphia Inquirer

Publisher Location: Philadelphia, PA

Publication Date: 2008, May 30

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic](#)
[Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender Equitable Curricula in High School Science and Engineering

Resource Title:	Gender Equitable Curricula in High School Science and Engineering
Description/Annotation:	This paper discusses curricula for secondary school science classrooms. As part of a Research Experiences for Teachers (RET) supplement to the VaNTH Engineering Research Center for Bioengineering Educational Technologies, an interdisciplinary group of secondary teachers and college faculty came together to develop and field test new materials for secondary school science classrooms. The instructional units have as their starting point a “grand challenge” that not only assists the students using the materials to see a real world application of the science knowledge they will be learning but also serves as a focus for student understanding.
Author Last Name:	Klein
Author First Name:	Stacy S.
Additional Author:	Sherwood
:	Robert D.
Publication Date:	2005
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Gender Equity and Engineering: A Review of Education Policy And Research Since 1964

Resource Title: Gender Equity and Engineering: A Review of Education Policy And Research Since 1964

Description/Annotation: This paper examines how the passage of civil rights legislation has defined the direction and scope of subsequent education policy and research in terms of gender equity. A review of the research literature suggests that the persistent under representation of women engineering education programs is not simply the result of poor academic preparation or gender-specific patterns of socialization, but is also embedded in the habits of mind that have shaped education research and public policy since 1964.

Author Last Name: Gowen

Author First Name: Sheryl Greenwood

Additional Author: Waller

: Alisha A.

Publication Date: 2002

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender Equity in Higher Education: Why and How? A Case Study of Gender Issues in a Science Faculty

Resource Title: Gender Equity in Higher Education: Why and How? A Case Study of Gender Issues in a Science Faculty

Description/Annotation: In order to understand why the number of women in the field of physics is still relatively small, this article reports on a qualitative case study of gender equity in a large physics faculty in a Swedish university.

Author Last Name: Viefers

Author First Name: Susanne F.

Additional Author: Christie

: Michael F.
Additional Author: Ferdos
: Fariba
Publication Date: 2006, Mar
Page Numbers: 15-22
Publication Title: European Journal of Engineering Education
Volume: 31
Issue: 1
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#)
» [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Retention](#)

Gender Equity in Industrial Engineering:A Pilot Study

Resource Title: Gender Equity in Industrial Engineering:A Pilot Study
Description/Annotation: This study, conducted at the University of Oklahoma (OU), noted an increase in the number of female faculty members in the Industrial Engineering (IE) Department. IE classes had more female students than any other core engineering classes on campus. These classes had an active, hands-on learning environment which incorporated study groups. Also, faculty members encouraged students to participate in research activities on campus.

Author Last Name: Harris
Author First Name: Betty J.
Additional Author: Rhoads
: Teri Reed
Additional Author: Walden
: Susan E.
Additional Author: Murphy
: Teri J.

Additional Author: Meissler
:
Reinhild
Publication Date: 2004
Page Numbers: 186-193
Publication Title: NWSA Journal
Volume: 16
Issue: 1
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Gender equity in science: Still an elusive goal

Resource Title: Gender equity in science: Still an elusive goal
Description/Annotation: This article discusses a study undertaken in the late 1980s and early 1990s at Harvard University revealing the discrimination barriers experienced by women scientists. Results from the study also indicate how the barriers might be overcome, as well as the strong need for better local policies- at the university, corporate, and government agency levels- before women have a truly equal chance for advancement in scientific fields.
Author Last Name: Sonnert
Author First Name: Gerhard
Publication Date: 1995, Dec
Page Numbers: 53
Publication Title: Issues in Science and Technology
Volume: 12
Issue: 2
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#) [Career](#)
[Factors](#) » [Stereotype Threat](#)

Gender Equity Study of Female CET Students/Graduates at Georgia Southern University

Resource Title:	Gender Equity Study of Female CET Students/Graduates at Georgia Southern University
Description/Annotation:	This paper presents the results of a survey of female graduates of the civil engineering technology program at Georgia State University (GSU). An attempt was made to identify those factors that led the women to this field and the age at which they made their decision. The survey asked about their learning experiences at GSU and solicited suggestions for making the learning atmosphere and ultimately their employment upon graduation more gender equitable. Graduates were asked to relate from a gender equity viewpoint (i.e. their experience(s) in a predominantly male work environment) their experiences in the work place.
Author Last Name:	Degyansky
Author First Name:	Milan E.
Publication Date:	1999
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational](#)
[Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) »
[Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Fairness Using the ACT

Resource Title:	Gender Fairness Using the ACT
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Description/Annotation: This 4-page article reports an analysis of the ACT college entrance exam for gender bias. Ultimately, the authors suggest that gender differences are primarily the result of student self-selection rather than test bias.

Author Last Name: ACT

Publisher: ACT Inc.

Publisher Location: Iowa City, IA

Publication Date: 2005

Page Numbers: 4

Publication Title: Issues in College Readiness

Source: ACT

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Stereotype Threat](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Gap in Computer Science: Studying Its Absence in One Former Soviet Republic

Resource Title: Gender Gap in Computer Science: Studying Its Absence in One Former Soviet Republic

Description/Annotation: This paper presents data, observations, and findings of an international investigation involving former soviet countries and the USA on the issue of women's interest and participation in computer science. The researchers' goal was (i) to identify factors that attract women to CS in former soviet countries and find out whether or not these factors work in the USA, and (ii) to find out whether or not some of the well known negative factors that affect women in the USA exist in those countries.

Author Last Name: Gharibyan

Author First Name: Hasmik

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender in Mentoring Relationships

Resource Title: Gender in Mentoring Relationships

Description/Annotation: Book chapter examining relationship of gender on mentoring including whether boys and girls have different mentoring needs and whether the gender of a mentor impacts the effectiveness of mentoring on each sex.

Author Last Name: Bogat

Author First Name: G. Anne

Additional Author: Liang

: Belle

Publisher: SAGE

Publication Date: 2005

Page Numbers: 205-217

Publication Title: Handbook of Youth Mentoring

Source: Google Book

Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Gender in Urban Education: Strategies for Student Achievement

Resource Title: Gender in Urban Education: Strategies for Student Achievement

Description/Annotation: In this 208-page book, the authors offers suggestions to educators that will help create gender equity in the classroom. Instead of

emphasizing special treatment for boys or girls in the classroom, the authors suggest that gender awareness is critical to creating more equitable interactions both in and out of the classroom.

Author Last Name: Ginsberg
Author First Name: Alice E.
Additional Author: Shapiro
:
Joan Poliner
Additional Author: Brown
:
Shirley P.
Publisher: Heinemann
Publisher Location: Portsmouth, NH
Publication Date: 2004
Page Numbers: 208
Database Name: Amazon
Source Type: Summary, Available for Purchase

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) » [Academic & Social](#)
[Climate Educational Factors](#)

Gender Inclusiveness in Educational Technology and Learning Experiences of Girls and Boys

Resource Title: Gender Inclusiveness in Educational Technology and Learning Experiences of Girls and Boys

Description/Annotation: The present empirical study focuses on the relationship between the inclusiveness of educational tools and the learning experiences of girls and boys. The results show that gender scripts are embedded in educational tools, which are reinforced in classroom practice and affect learner experiences. A greater inclusiveness of the tools appears to improve the participation of students, enhances positive attitudes toward learning and technology, and improves the learning effects as reported by girls and boys.

Author Last Name: Heemskerk
Author First Name: Irma

Additional Author: Geert ten
:
Additional Author: Wilfried
:
Admiraal
Publication Date: 2009
Page Numbers: 253-276
Publication Title: Journal of Research on Technology in Education
Volume: 41
Issue: 3
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Inclusiveness in Engineering Education - Is Problem Based Learning Environment a Recipe?

Resource Title: Gender Inclusiveness in Engineering Education - Is Problem Based Learning Environment a Recipe?

Description/Annotation: Based on two PhD studies on gender recruitment at an engineering university in Denmark, this paper discusses whether and how a problem-based learning (PBL) environment have been functioning in the recruitment of engineering students. The research findings from both studies show that the PBL environment can be regarded as a learning environment that is friendly to students of both genders. However, it did not witness dramatic increase of women's presence in the past twenty years. Both studies agreed that gender recruitment is not only based on pedagogic model. Therefore, this paper concludes that PBL environment itself is not enough to be used as a recipe for recruiting women to engineering studies.

Author Last Name: Du
Author First Name: Xiang-Yun
Additional Author: Kolmos

: Anette
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender Indicators in Science, Engineering, and Technology: An Information Toolkit

Resource Title: Gender Indicators in Science, Engineering, and Technology: An Information Toolkit

Description/Annotation: This web-based toolkit explores the different roles played by both men and women in science, technology and engineering research, development and implementation. The Toolkit proposes policy, offers case studies, offers qualitative and quantitative data, and discusses where differences are found and what recommendations come from these differences.

Author Last Name: Huyer
Author First Name: Sophia
Additional Author: Westholm
: Gunnar
Publisher: UNESCO
Publication Date: 2004
Source: UNESCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender Inequality in Science: A Universal Condition?

Resource Title:	Gender Inequality in Science: A Universal Condition?
Description/Annotation:	This article introduces essays about women in science, published in a special issue of the journal "Minerva." The article discusses Issues of inequality, exploration of the social structure of science and its receptivity to women, and research on the state of women in science in contrasting social, political and economic systems in Europe, North America, South America and Asia.
Author Last Name:	Etzkowitz
Author First Name:	Henry
Additional Author:	Kemelgor
:	Carol
Publication Date:	2001
Page Numbers:	239-257
Publication Title:	Minerva
Volume:	39
Issue:	2
Source:	Springer Link
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Retention](#)

Gender Inequity in Science and Mathematics Education in Africa: The Causes, Consequences, and Solutions

Resource Title:	Gender Inequity in Science and Mathematics Education in Africa: The Causes, Consequences, and Solutions
Description/Annotation:	This article discusses gender inequity in mathematics and science education in African schools. Girls are not receiving the same quality, or even quantity, of education as their male classmates in

both subjects. The article also suggests several promising strategies for discovering long-term solutions to this problem.

Author Last Name: Asimeng-Boahene
Author First Name: Lewis
Publication Date: 2006
Page Numbers: 711-728
Publication Title: Education
Volume: 126
Issue: 4
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Gender Orientation of the Design Task: Product Domain and Familiarity Issues

Resource Title: Gender Orientation of the Design Task: Product Domain and Familiarity Issues

Description/Annotation: This study highlights the potential impact of the gender orientation of the product design task on the performance of design teams with different gender compositions. It also summarizes the methodology and results of a preliminary study conducted at The Pennsylvania State University during fall 2002 using two sections of an Introduction to Engineering Design course. The pilot study used 16 engineering design teams that completed two design projects. The first design project is a guided project and the second one is an open-ended, industry-sponsored project. Preliminary results indicate that design experience affects the performance of design teams. In addition, despite the fact that the gender orientation of the design task is not found to be significant—as it is quantified for this preliminary study—the increase of female students in design teams result in lower design performance. However, the data set included does not warrant a conclusion on the effect of the gender orientation of the design task on design team performance.

Author Last Name: Okudan
Author First Name: G.E.
Additional Author: Bilen
:
S.G.
Additional Author: Wu
:
X.
Publication Date: 2003
Page Numbers: 427-428
Publication Title: Proceedings of the International Conference on Engineering Design
Source: The Design Society
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender Participation in Humanitarian vs. Traditional Multidisciplinary Senior Design Projects

Resource Title: Gender Participation in Humanitarian vs. Traditional Multidisciplinary Senior Design Projects

Description/Annotation: This paper investigates the gender mix of students in traditional multidisciplinary senior design projects for the Engineering Division at the Colorado School of Mines versus the gender mix of students choosing humanitarian-designated multidisciplinary projects. Four semesters of senior design classes were investigated with about 500 students participating. Women comprised about 23% of the total class population for these senior design course offerings. In the Humanitarian projects, women comprised over 50%. This significant difference supports the concept that women will be drawn more to engineering as a career if the application of engineering to humanitarian problems is emphasized.

Author Last Name: Skokan
Author First Name: Catherine
Additional Author: Gosink

: Joan
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Performance Assessment of Unique Hands-On Inquiry-Based Engineering Lessons In Secondary Mathematics and Science Classrooms

Resource Title: Gender Performance Assessment of Unique Hands-On Inquiry-Based Engineering Lessons In Secondary Mathematics and Science Classrooms

Description/Annotation: This paper explores the development of student attitudes towards math and science topics on a gender basis. Seven classrooms of 11th grade math and science students were used in this study to provide quantitative and qualitative data to support the authors' beliefs that through effectively demonstrating the relevance of mathematics and science topics through real-world issues and current community events, a stronger student affinity towards these subjects can be achieved.

Author Last Name: Kukreti
Author First Name: Anant
Additional Author: Allen
: James
Additional Author: Daniel
: Michelle
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Pedagogy & Instruction Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Gender Perspectives on the Optimization of the Interdisciplinary Course Curriculum “Introduction to Electrical Engineering for Non-Majors”

Resource Title: Gender Perspectives on the Optimization of the Interdisciplinary Course Curriculum “Introduction to Electrical Engineering for Non-Majors”

Description/Annotation: This paper is the outcome of a project that evaluates and improves the curriculum and teaching approach to the interdisciplinary course “Introduction to Electrical Engineering (EE) for non-EE majors” that is taught as a service course at Michigan Technological University, and has equivalents in almost all engineering schools nationally. In order to specify the general and special needs of all non-EE majors and form a curriculum, a comprehensive survey was designed and distributed to universities and industry. This paper analyses the survey in detail to compare the perspectives of female and male respondents. Specifically, researchers analyze the impact of prior experience such as research and coop/internship on how women rate the importance of different curriculum topics. The results show that there are statistically significant differences on 22% of the curriculum topics surveyed and these differences are more critical for females than men. Funded by NSF REE under award #0415962.

Author Last Name: Hungwe

Author First Name: Kedmon

Additional Author: Zekavat

: Seyed

Additional Author: Archer

: Glen

Publication Date: 2006

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors Publications by Funder](#) » [NSF-EEC-REE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Gender Ratios in High School Science Departments: The Effect of Percent Female Faculty on Multiple Dimensions of Students' Science Identities

Resource Title: Gender Ratios in High School Science Departments: The Effect of Percent Female Faculty on Multiple Dimensions of Students' Science Identities

Description/Annotation: This report examines the effect that percentage of female science teachers could have on the engineering views and aspirations of underrepresented students. Results of this mixed-methods study showed that the percentage of female science teachers did not have a demonstrable effect on a range of science measures for either male or female students.

Author Last Name: Gilmartin

Author First Name: Shannon

Additional Author: Denson

: Nida

Additional Author: Li

: Erika

Additional Author: Bryant

: Alyssa

Additional Author: Aschbacher

: Pamela

Publication Date: 2007, Sep

Page Numbers: 980-1009

Publication Title: Journal of Research in Science Teaching
Volume: 44
Issue: 7
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender Representation in Architectural Engineering- Is it all in the name?

Resource Title: Gender Representation in Architectural Engineering- Is it all in the name?

Description/Annotation: This overall research study explores the learning styles of different engineering disciplines and the learning styles preferred by students who select these disciplines as academic majors and careers. A preliminary survey of women in the architectural engineering department at California Polytechnic State University was administered to discover why these women personally chose architectural engineering as a major, why they persist in the major, and why they think women are so largely represented in the major.

Author Last Name: Brady
Author First Name: Pamalee
Additional Author: Estes
:
Allen
Publication Date: 2010
Publication Title: ASEE Annual Conference & Exposition
Source: California Polytechnic State University
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Pedagogy & Instruction Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Gender Schemas, Privilege, Micro-messaging, and Engineering Education: Practical Lessons from Theory

Resource Title: Gender Schemas, Privilege, Micro-messaging, and Engineering Education: Practical Lessons from Theory

Description/Annotation: Despite concerted efforts to dismantle formal barriers to entry and retention, clear differences persist between the experiences of women in undergraduate engineering programs and their male counterparts. Many existing explanations of women's underrepresentation in engineering and physical sciences are based on differences in intrinsic values, psychological needs, preparation, work-related values, family obligations, and lack of "critical mass." Without ruling out the possible significance of these factors, this paper explores an alternative factor, one over which the engineering profession itself might have greater control: the culture of our classrooms. In particular, authors introduce several frameworks from the psychology and gender studies literature that shed light on how classroom climate plays a role in student experience and, in turn, in the recruitment and retention issues. Funded by NSF GSE under award #0624738.

Author Last Name: Zastavker

Author First Name: Yevgeniya V.

Additional Author: Chachra

: Debbie

Additional Author: Lynch

: Caitrin

Additional Author: Sarang-Sieminski

: Alisha L.

Additional Author: Stein

: Lynn Andrea

Publication Date: 2011

Publication Title: 2011 ASEE Annual Conference and Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

Gender Schemas: A Cognitive Explanation of Discrimination of Women in Technology

Resource Title: Gender Schemas: A Cognitive Explanation of Discrimination of Women in Technology

Description/Annotation: Analysis of impact of gender schema on the under representation of women in information technology. This study shows differences in the gender schemas of women in technology and the gender schemas of the general population.

Author Last Name: Lemons

Author First Name: Mary A.

Additional Author: Parzinger

: Monica

Publisher: Springer Netherlands

Publisher Location: Rotterdam, Netherlands

Publication Date: 2007, Jul

Page Numbers: 91-98

Publication Title: Journal of Business and Psychology

Volume: 22

Issue: 1

Source: SpringerLink

Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Stereotype Threat](#)

Gender Similarities Characterize Math Performance

Resource Title:	Gender Similarities Characterize Math Performance
Description/Annotation:	Statistical analysis of gender differences in math performance using annual assessments collected as a result of No Child Left Behind (NCLB) legislation for 10 states and NAEP assessments.
Author Last Name:	Hyde
Author First Name:	Janet S.
Additional Author:	Lindberg
:	Sara M.
Additional Author:	Linn
:	Marcia C.
Additional Author:	Ellis
:	Amy B.
Additional Author:	Williams
:	Caroline C.
Publisher:	AAAS
Publication Date:	2008, Jul
Page Numbers:	494-495
Publication Title:	Science
Volume:	321
Issue:	5888
Source:	AAAS
Source Type:	Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Gender Similarities in Mathematics and Science

Resource Title: Gender Similarities in Mathematics and Science

Description/Annotation: Short article asserting that tailoring teaching environments to support stereotypes of gender learning styles is inappropriate. Instead math and science performance are better indicators of persistence of boys and girls in science and engineering.

Author Last Name: Shibley Hyde

Author First Name: Janet

Additional Author: Linn

: Marcia C.

Publisher: American Association for the Advancement of Science (AAAS)

Publisher Location: Washington, D.C.

Publication Date: 2006, Oct

Page Numbers: 599-600

Publication Title: Science

Volume: 314

Issue: 27

Source: AAAS

Source Type: Summary, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender trends in engineering retention

Resource Title: Gender trends in engineering retention

Description/Annotation: This paper reports on an analysis of graduation data for four cohorts and retention data for six cohorts of engineering students. Statistical analyses were performed to determine significant differences between groups of students and which characteristics are most strongly correlated to retention in engineering. The purpose of this study was to identify trends in female engineering student retention to guide future program development. Overall, the graduation/retention rates and GPAs of female students were found to be higher than those of the male students. Brief examples of how these findings can be applied are also offered.

Author Last Name: Jenkins

Author First Name: M.
Additional Author: Keim
: R.G.
Publication Date: 2004
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Gender Writ Small: Gender Enactments and Gendered Narratives about Lab Organization and Knowledge Transmission in a Biomedical Engineering Research Setting

Resource Title: Gender Writ Small: Gender Enactments and Gendered Narratives about Lab Organization and Knowledge Transmission in a Biomedical Engineering Research Setting

Description/Annotation: This article presents qualitative data and offers some innovative theoretical approaches to frame the analysis of gender in science, technology, engineering, and mathematics (STEM) settings. It begins with a theoretical discussion of a discursive approach to gender that captures how gender is lived "on the ground." The authors argue for a less individualistic approach to gender. Data for this research project was gathered from intensive interviews with lab members and ethnographic observations in a biomedical engineering lab. Three themes are highlighted: lab dynamics in relation to issues of critical mass, the division of labor, and knowledge transmission. The data illustrate how gender is created in interactions and is inflected through forms of social organization.

Author Last Name: Malone
Author First Name: Kareen Ror
Additional Author: Neressian
: Nancy J.

Additional Author: Newsletter
: Wendy
Publication Date: 2005
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 1
Source: Georgia Institute of Technology
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Gender, Culture, and Mathematics Performance

Resource Title: Gender, Culture, and Mathematics Performance

Description/Annotation: This study is a continuation of a previous paper that examines potential differences in mathematics skills between males and females, using data from the U.S. and other countries. This paper suggests that while there are no innate differences in ability, there are some gender disparities due to sociocultural, not biological, factors. In particular this paper focuses on higher-performing students and calls for better methods of identifying and developing mathematical ability in all students.

Author Last Name: Hyde

Author First Name: Janet

Additional Author: Mertz
: Janet

Publisher: National Academy of Sciences

Publication Date: 2009, Jun 2

Page Numbers: 8802 - 8807

Publication Title: Proceedings of the National Academy of Sciences

Volume: 106

Issue: 22

Source: PNAS
Source Type: Full text

Resource Type Categories: Articles/Reports » Journal Articles Data and Statistics » Reports Topical Categories: Cultural Influences Cultural Influences » Gender Diversity

Gender, Faculty, and Doctoral Education in Science and Engineering

Resource Title: Gender, Faculty, and Doctoral Education in Science and Engineering

Description/Annotation: This 10 page chapter asks the question: What are the consequences (for doctoral students) of having female faculty? Data from 1993-1994 is used to show that female faculty tend to advise more female students than male faculty and more likely to regard their role as a mentor, discuss research with their students on a more regular basis and place a greater importance on facets of graduate education, especially for female students.

Author Last Name: Fox

Author First Name: Mary

Publisher: Springer

Publication Date: 2003

Page Numbers: 101-110

Publication Title: Equal Rites, Unequal Outcomes: Women in American Research Universities

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: Book » Book Chapter Topical Categories: Educational Factors » Academic & Social Climate Career Factors Educational Factors Educational Factors » Faculty Student Interaction Career Factors » Mentoring

Gender, Faculty, and Doctoral Education in Science and Engineering

Resource Title: Gender, Faculty, and Doctoral Education in Science and Engineering

Description/Annotation: Using data from a survey of 1200 faculty in science and engineering fields, this chapter reports results regarding the social complexity and dynamics of faculty in doctoral education. The chapter explores some fundamental questions, including: What are the consequences of having women faculty in doctoral education?; and How and why does it matter to have women as well as men faculty in science and engineering fields?

Author Last Name: Fox

Author First Name: Mary Frank

Publisher: Kluwer Academic

Publication Date: 2003

Page Numbers: 91-109

Publication Title: Equal Rites, Unequal Outcomes: Women in American Research Universities

Database Name: Google Books

Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Gender, Families, and Science: Influences on Early Science Training and Career Choices

Resource Title: Gender, Families, and Science: Influences on Early Science Training and Career Choices

Description/Annotation: Suggests gender affects a person's decision to enroll in post-secondary science training immediately following high school. Family influences are not considered a predictor in girls' access to science training or careers.

Author Last Name: Hanson

Author First Name: Sandra

Publisher: Begell House

Publisher Location: Redding, CT
Publication Date: 2000
Page Numbers: 169-187
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 6
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gender, Family Characteristics, and Publication Productivity Among Scientists

Resource Title: Gender, Family Characteristics, and Publication Productivity Among Scientists

Description/Annotation: This paper concentrates upon the relationship between marriage, parental status, and publication productivity for women in academic science, with comparisons to men. Findings indicate that gender, family characteristics, and productivity are complex considerations that go beyond being married or not married.

Author Last Name: Fox
Author First Name: Mary Frank
Publication Date: 2005, Feb
Page Numbers: 131-150
Publication Title: Social Studies of Science
Volume: 35
Issue: 1
Source: Sage Journals Online
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Career Factors](#) » [Family Issues](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender, Girls, and Computer Technology: What's the Status Now?

Resource Title:	Gender, Girls, and Computer Technology: What's the Status Now?
Description/Annotation:	This article reviews research and literature on gender and technology and looks at computer equity themes of the 1980's and early 1990's. The author argues that middle school is the place to make a difference and lists recommendations in the literature for assisting girls with computer technology.
Author Last Name:	Butler
Author First Name:	Deborah
Publication Date:	2000
Page Numbers:	225-229
Publication Title:	The Clearing House
Volume:	73
Issue:	4
Source:	JSTOR
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Gender, Race, and Ethnic Segregation of Science Fields in U.S. Universities

Resource Title:	Gender, Race, and Ethnic Segregation of Science Fields in U.S. Universities
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Description/Annotation: This paper examines the gender and race segregation of math, science, and engineering fields in U.S. universities. It also examines representation at institutions of varying levels of selectivity. By considering multiple dimensions of participation, findings uncover a greater level of complexity in the representation of women and minorities in science fields.

Author Last Name: Mullen

Author First Name: Ann L.

Additional Author: Baker

: Jayne

Publication Date: 2008

Page Numbers: 159-176

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender, Race, and the College Science Track: Analyzing Field Concentrations and Institutional Selectivity

Resource Title: Gender, Race, and the College Science Track: Analyzing Field Concentrations and Institutional Selectivity

Description/Annotation: This study examines the effects of gender, race, and ethnicity on the pursuit of scientific fields of study among college students. It builds on previous research by considering variation among fields of science and variation across institutions in selectivity. The findings reveal that African American students graduating with degrees in science are underrepresented in elite institutions, principally because of their concentration in historically Black colleges and universities. The evidence does not indicate that

female science majors are underrepresented in elite institutions. Both groups are concentrated among the science fields with the lowest labor market returns. These findings demonstrate that female and minority students are more disadvantaged than studies of their simple representation in science would suggest.

Author Last Name: Mullen
Author First Name: Ann L.
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 4
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Gender, Science and Technology in Brazil

Resource Title: Gender, Science and Technology in Brazil
Description/Annotation: This essay considers gender in relation to Brazilian science and technology. It reviews leading studies in the field, and offers briefbiographies of pioneering women in science. While there is still much room for improvement, the essay suggests that the situation of women in science experienced significant progress during the closing decades of the twentieth century.

Author Last Name: Plonski
Author First Name: Guilherme Ary
Additional Author: Saidel
: Rochelle G.
Publication Date: 2001
Page Numbers: 217-238
Publication Title: Minerva
Volume: 39
Issue: 2

Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study](#)
[Choices](#) [Career Factors](#) » [Professional Development](#)

Gender, Science, and Scientific Organizations in Germany

Resource Title: Gender, Science, and Scientific Organizations in Germany
Description/Annotation: This article considers the situation of women in science in Germany. The authors argue that scientific organizations play a crucial role in shaping science careers, often with different consequences for men and women.
Author Last Name: Fuchs
Author First Name: Stefan
Additional Author: von Stebut
:
Additional Author: Janina
Additional Author: Allmendinger
:
Publication Date: 2001
Page Numbers: 175-201
Publication Title: Minerva
Volume: 39
Issue: 2
Source: SpringerLink
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Gender, Science, and the Federal Funding of Research

Resource Title:	Gender, Science, and the Federal Funding of Research
Description/Annotation:	Using field-level data from the Survey of Earned Doctorates from 1974 to 2003, the author analyzes the impact of the federal government's funding of research and development (R&D) within the science and engineering fields on the percentage of doctoral degree recipients who are able to secure employment positions following graduation. The results indicate that the percentage of male and female doctoral graduates securing employment increases in similar magnitudes as a result of this R&D funding allocated by the National Science Foundation and the National Institutes of Health; however, the R&D funds allocated by more mission-oriented agencies provide little help for these employment seekers. These differences may be attributed to the allocation methods used by the various agencies.
Author Last Name:	Moorhouse
Author First Name:	Elizabeth A.
Publication Date:	2010
Page Numbers:	115-136
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	16
Issue:	2
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Gender, self-efficacy and achievement among South African Technology teacher trainees

Resource Title:	Gender, self-efficacy and achievement among South African Technology teacher trainees
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Description/Annotation: This article considers the relationship between gender and self-efficacy in teacher trainees engaged in electricity-related design and construction task. Results indicated a gender bias exists in students teachers entering the University with more male than female students having done Science to grade 12 level.

Author Last Name: Mackay
Author First Name: James
Additional Author: Parkinson
:
Publication Date: 2010
Page Numbers: 87-103
Publication Title: Gender and Education
Volume: 22
Issue: 1
Source: Taylor & Francis Group
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional](#)
[Development](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Gender, Self-Perception, and Academic Problems in High School

Resource Title: Gender, Self-Perception, and Academic Problems in High School

Description/Annotation: Given the increasing importance of education to socioeconomic attainment and other life course trajectories, early academic struggles can have long-term consequences if not addressed. Analysis of a nationally representative sample with official school transcripts and extensive data on adolescent functioning identified a social psychological pathway in this linkage between external feedback about early struggles and truncated educational trajectories. For girls, class failures absent of diagnosed learning disabilities engendered increasingly negative self-perceptions that, in turn, disrupted math and science course-taking, especially in family and peer contexts in which academic success was

prioritized. For boys, diagnosed learning disabilities, regardless of class performance, engendered the same changes in self-perception and the same consequences of these changes for course-taking across family and peer contexts. These results reveal how ability labels and ability-related performance indicators come together to influence the long-term educational prospects of girls and boys attending mainstream schools in which the majority of students do not have learning disabilities or severe academic problems. Funded by NSF GSE under award #0523046.

Author Last Name: Crosnoe
Author First Name: R.
Additional Author: Riegle-Crumb
:
Additional Author: Muller
:
Publication Date: 2007
Page Numbers: 118-138
Publication Title: Social Problems
Volume: 54
Issue: 1
Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Publications by Funder » NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors » Self-perception](#)

Gender, Status, and Leadership

Resource Title: Gender, Status, and Leadership
Description/Annotation: Gender, status, and leadership are all deeply intertwined, as gender is shown to be not simply a distinguishing trait of an individual but, rather, an indicator of a belief system. Gender status is tied to our social hierarchy and leadership traditions. Gender status affects the ability of women to advance in a male

dominated field since their behaviors are viewed through a gender status filter and so judged accordingly. Interesting research for all corporate and academic leaders.

Author Last Name: Ridgeway
Author First Name: Cecilia L.
Publisher: Wiley-Blackwell
Publisher Location: Malden, MA
Publication Date: 2001
Page Numbers: 637-656
Publication Title: Journal of Social Issues
Volume: 57
Issue: 4
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#)

Gender-Based Differences in Language Learning Strategies of Science Students

Resource Title: Gender-Based Differences in Language Learning Strategies of Science Students

Description/Annotation: This study explores the influence of gender on language strategy use. A total of 115 science students were involved in this study. Survey method was used as data collection instrument. The results indicate that female students reported higher strategy use. More specifically, female learners showed greater use of the five major strategy categories (memory, compensation, cognitive, metacognitive and social strategy categories).

Author Last Name: Kayaoglu
Author First Name: M. Naci
Publication Date: 2012, Jun

Page Numbers: 12-24
Publication Title: Journal of Turkish Science Education
Volume: 9
Issue: 2
Source: Academia.edu
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender-based Preferences toward Technology Education Content, Activities, and Instructional Methods

Resource Title: Gender-based Preferences toward Technology Education Content, Activities, and Instructional Methods

Description/Annotation: The purpose of this study was to identify the types of learning activities, topics, and instructional methods in technology education that are preferred by middle and high school females and males.

Author Last Name: Weber
Author First Name: Katherine
Additional Author: Custer
: Rodney

Publisher: Journal of Technology Education
Publication Date: 2005, Spring
Volume: 16
Issue: 2
Source: Virginia Tech
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gender-Based Underrepresentation in Computer Science and Related Disciplines

Resource Title: Gender-Based Underrepresentation in Computer Science and Related Disciplines

Description/Annotation: This paper suggests that future studies must examine the issue of gender-based disparities in the pursuit of math from a choice-based paradigm. With work roles no longer based on gender, authors suggest that questions regarding women in math disciplines must be examined within choice-based models rather than those that emphasize environmentally determined criteria. Authors propose an integrated research model that includes choice as a critical causal variable.

Author Last Name: Hammond

Author First Name: T.

Additional Author: Hammond

: J.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Gender-Informed Mentoring Strategies for Women Engineering Scholars: On Establishing a Caring Community

Resource Title: Gender-Informed Mentoring Strategies for Women Engineering Scholars: On Establishing a Caring Community

Description/Annotation: Paper researching peer-, multiple- and collective mentorships as strategy to improve presence, retention and advancement of women

scholars in engineering. Asserts faculty mentorships can help grow a nurturing community that encourages both personal and professional growth by addressing women's socialization needs.

Author Last Name: Chesler
Author First Name: Naomi C.
Additional Author: Chesler
:
Mark A.
Publication Date: 2002, Jan
Page Numbers: 49-55
Publication Title: Journal of Engineering Education
Source: ASEE
Database Name: Posted with permission

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Gender-Specific Trends in the Value of Education and the Emerging Gender Gap in College Completion

Resource Title: Gender-Specific Trends in the Value of Education and the Emerging Gender Gap in College Completion

Description/Annotation: This 24-page report discusses a study of the March Current Population Survey from 1964 to 2002 that reveals an interesting trend of white women overtaking white men in terms of college completion. The authors suggest that the benefits that white women are receiving from completing a college education have outpaced those of white men, although this differential in benefits cannot fully explain the trend toward an increasing gender gap in college completion.

Author Last Name: DiPrete
Author First Name: Thomas Albert
Additional Author: Buchmann
:
Claudia
Publisher: Population Association of America
Publication Date: 2006
Page Numbers: 1-24

Publication Title: Demography
Volume: 43
Issue: 1
Source: Columbia University
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

Gender/Technology Relations: Complicating the gender binary

Resource Title: Gender/Technology Relations: Complicating the gender binary
Description/Annotation: This article is concerned with gender and technology relations in education. More specifically, it focuses on assumptions made about girls' and young women's developing identity within the context of the computing and/or technology classroom in primary and secondary schools. The article argues that we must explore what is invisible yet taken for granted in social-constructionist analyses of gender-technology relations: that these relations are situated within heterosexual social norms.

Author Last Name: Stepulevage
Author First Name: Linda
Publication Date: 2001
Page Numbers: 325-338
Publication Title: Gender and Education
Volume: 13
Issue: 3
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Gendered boundaries: Using a "Boundary" metaphor to understand faculty members' descriptions of engineering

Resource Title:	Gendered boundaries: Using a "Boundary" metaphor to understand faculty members' descriptions of engineering
Description/Annotation:	This paper investigates a metaphor new to engineers, that of "boundaries," to help make visible the disciplinary work engineering faculty members regularly do that could construct academic engineering as a gendered field. Through quotations drawn from an interview-based study of 10 engineering faculty members, this author explores ideas of boundary language and work, and suggest ways in which the conceptual boundary of engineering can be interpreted as gendered.
Author Last Name:	Pawley
Author First Name:	A.L.
Publication Date:	2007
Page Numbers:	S2H-16 - S2H-21
Publication Title:	Frontiers in Education Conference (FIE)
Source:	IEEE
Source Type:	Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Gendered Fields: Sports and Advanced Course Taking in High School

Resource Title:	Gendered Fields: Sports and Advanced Course Taking in High School
Description/Annotation:	This study explores the association between sports participation and course taking in high school, specifically comparing subjects with varied gendered legacies-science and foreign language. Analyses of a nationally representative longitudinal sample

(N=5,447) of U.S. adolescents from the National Longitudinal Study of Adolescent Health and the linked Adolescent Health and Academic Achievement transcript study show that male and female athletes are more likely than non-athletes to take both advanced foreign language and Physics, largely because of their higher academic orientation. However, the association between sports participation and course taking was strongest for girls' Physics coursework, suggesting that sports may provide girls with a unique opportunity to develop the skills and confidence to persevere in the masculine domain of science. Funded by NSF GSE under award #0523046.

Author Last Name: Pearson
Author First Name: J.
Additional Author: Crissey
: S.R.
Additional Author: Riegle-Crumb
: C.
Publication Date: 2009, Oct.
Page Numbers: 519-535
Publication Title: Sex Roles
Volume: 61
Issue: 7-8
Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered](#)
[Occupations & Study Choices](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Gendered Innovations in Science and Engineering

Resource Title: Gendered Innovations in Science and Engineering
Description/Annotation: Prominent scholars contribute to this book discussing gender analysis and how it enhances knowledge in science, engineering, and medicine. The topic is important because many government agencies require requests for funding to address gender relevancy

to the proposed research, and many researchers do not understand how to do gender analysis. This book explains the how and the why of gender analysis. For academics, industry, and the workforce.

Author Last Name: Schiebinger (ed.)
Author First Name: Londa
Publisher: Stanford University Press
Publisher Location: Stanford, CA
Publication Date: 2008
Page Numbers: 1-256
Source: Stanford University
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gendered Innovations in Science, Health & Medicine, Engineering, and Environment

Resource Title: Gendered Innovations in Science, Health & Medicine, Engineering, and Environment

Description/Annotation: The Gendered Innovations project, initiated at Stanford University in July 2009, offers sophisticated methods of sex and gender analysis to stimulate the creation of gender-responsible science and technology. In January 2011 the European Commission set up an expert group on “Innovation through Gender” with the goal of developing the gender dimension in EU research and innovation. In addition to drawing experts from across the U.S., this project now involves experts from the EU's 27 Member States. The goal of the Gendered Innovations project is to provide scientists and engineers with practical methods for sex and gender analysis and provides case studies as concrete illustrations of how sex and gender analysis leads to innovation.

Web site Link: [Link to Resource](#)

More: The term "Gendered Innovations" was coined in 2005 by Londa Schiebinger, a John L. Hinds Professor of History of Science at

Stanford and the current Project Director of the Gendered Innovations project.

Resources: The Gendered Innovations website has six interactive main portals:

- [Methods](#) of sex and gender analysis for research and engineering
- [Case studies](#) illustrate how sex and gender analysis leads to innovation
- [Terms](#) address key concepts used throughout the site
- [Checklists](#) for researchers, engineers, and evaluators
- [Policy](#) provides recommendations and links to key policies that support Gendered Innovations
 - [Analysis Policies of Major Granting Agencies](#) evaluates whether proposals include women's representation, removing institutional barriers, and incorporating sex and gender analysis
- [Institutional Transformation](#) summarizes current literature on solutions and best practices for increasing the number of women in STEM and removing subtle gender bias from research institutions

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: Project Funders include Stanford University, Maastricht University and Technical University, Berlin

Contact Name: Professor Londa Schiebinger

Contact E-mail: genderedinnovations@stanford.edu

Last Update Date: July 23, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Gendered Organisational Cultures and Networks in Engineering Research. Results from European Project PROMETEA

Resource Title: Gendered Organisational Cultures and Networks in Engineering Research. Results from European Project PROMETEA

Description/Annotation: Aim of this paper is to give an overview about state of the art, hypotheses, methodology and selected results of the European Commission Project PROMETEA dealing with effects of

gendered organisational cultures on careers of female engineers working in research.

Author Last Name: Sagebiel
Author First Name: Felizitas
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 10
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

General Trends in Engineering Education Support the Participation of Women

Resource Title: General Trends in Engineering Education Support the Participation of Women

Description/Annotation: This paper summarizes major trends identified in engineering education based upon an analysis of several influential reports. Because of technological advances as well as the globalization of businesses, economies and cultures in the twenty-first century, the importance of engineering disciplines and education has reached a critical state and prompted several examinations within the past few years. This paper shows how it appears that the trends in engineering education are in line with and supportive of the themes underlying the types of changes needed to draw more women into engineering.

Author Last Name: Jepson
Author First Name: Joye
Additional Author: Fortenberry
: Norman
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Generation STEM: What Girls Say about Science, Technology, Engineering, and Math

Resource Title: Generation STEM: What Girls Say about Science, Technology, Engineering, and Math

Description/Annotation: This 39-page report from the Girl Scout Research Institute (GSRI) explores how girls can better become engaged in STEM (science, technology, engineering, and mathematics) through an examination of what girls themselves say are their interests and perceptions about these important fields. Results offer new insights into how to keep girls engaged in STEM fields over time. The report's findings both dispel myths about girls and STEM, and give a deeper understanding about girls who are actively interested in STEM and are seemingly on the path to STEM careers. Results indicated that seventy-four percent of high school girls across the country are interested in the fields and subjects of STEM. The full report is available in PDF format.

Author Last Name: Girl Scout Research Institute

Publisher: Girl Scouts of the USA

Publisher Location: New York, NY

Publication Date: 2012

Page Numbers: 1-39

Source: Girl Scouts of the USA

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Genetic Research and Native American Cultural Issues

Resource Title: Genetic Research and Native American Cultural Issues

Description/Annotation: This paper discusses the Genetic Education for Native Americans (GENA) funded by the National Human Genome Research Institute of the National Institutes of Health. The goal of the GENA project is to provide a balance of scientific and cultural information about genetic research, genetic testing, and careers in genetics for Native American students. This article describes issues related to the implementation of GENA and provides an example of an innovative approach to teaching about genetic research among Native American populations.

Author Last Name: Romero

Author First Name: Francine

Additional Author: Bemis

: Lynne T.

Additional Author: Burhansstipanov

: Linda

Additional Author: Dignan

: Mark

Publication Date: 2001

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 2

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Getting Apples to Converse with Oranges: Facilitating Successful Student-Faculty Communication

Resource Title: Getting Apples to Converse with Oranges: Facilitating Successful Student-Faculty Communication

Description/Annotation: Discusses different communication styles and expectations of "millennial" undergraduate students and "boomer" professors with both parties needing to adapt to the changing landscape of campus communication.

Author Last Name: Wilcox

Author First Name: Emily

Additional Author: Raza

: Mahjabeen

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 6

Source: WEPAN

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Getting Even: Why Women Don't Get Paid Like Men-- And What to Do About It

Resource Title: Getting Even: Why Women Don't Get Paid Like Men--And What to Do About It

Description/Annotation: Evelyn Murphy, a PhD in economics and former lieutenant of Massachusetts, believes the persistent wage gap is due to discrimination- whether intentional or unintentional. She uses research from scores of legal cases as data and identifies five types of discrimination that contribute to the wage gap. The book also includes case studies of companies who created programs, under pressure, to make changes to address wage discrimination. For women in any industry and industry leadership.

Author Last Name: Murphy

Author First Name: Evelyn F.

Additional Author: Graff

: E. J.

Publisher: Touchstone

Publisher Location: New York, NY
Publication Date: 2006, Oct
Page Numbers: 1-352
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Getting Girls To The Lab Bench-To remain competitive, the U.S. must close the gender gap in science

Resource Title: Getting Girls To The Lab Bench-To remain competitive, the U.S. must close the gender gap in science

Description/Annotation: Article asserting that for the U.S. to remain competitive economically, women need to be leveraged as a part of the science and engineering workforce. Recommendations to increase the number of women pursuing science: mentoring of students, increasing women in academic faculties and making science "cool".

Author Last Name: Arnst
Author First Name: Catherine
Publisher: Bloomberg Business Week
Publication Date: 2005, Feb. 7
Page Numbers: 1
Publication Title: Business Week
Source: Bloomberg
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Mentoring](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Getting to 50/50: How Working Couples Can Have It All by Sharing It All

Resource Title:	Getting to 50/50: How Working Couples Can Have It All by Sharing It All
Description/Annotation:	Meers and Strober firmly believe families can be better off when the mom and dad both are working, and did extensive research to prove why it can happen if parents work together. This book delves into the ways working moms can survive and thrive by utilizing their best resource- their husbands. Dads can have better relationships with their children, moms can get what they need from work, and children benefit from higher quality relationships with both parents under the 50/50 scenario. Includes major research done on children in childcare. Excellent resource for parents in two-career families and those who study them.
Author Last Name:	Meers
Author First Name:	Sharon
Additional Author:	Strober
:	Joanna
Publisher:	Bantam
Publisher Location:	New York, NY
Publication Date:	2009, Feb
Page Numbers:	1-320
Source:	Amazon
Source Type:	Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Getting Unstuck: How Dead Ends Become New Paths

Resource Title:	Getting Unstuck: How Dead Ends Become New Paths
Description/Annotation:	The author is a psychotherapist and the Director of Career Development at Harvard Business School and has worked with thousands of corporate executives and students to help them with career impasse situations. He has developed a six-step process of practical approaches to help individuals identify their impasse,

discover their passions, and take action. For men and women in the workplace.

Author Last Name: Butler
Author First Name: Timothy
Publisher: Harvard Business School Press
Publisher Location: Boston, MA
Publication Date: 2007, Mar
Page Numbers: 1-204
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Ghanaian women and the engineering profession

Resource Title: Ghanaian women and the engineering profession
Description/Annotation: This paper discusses a study on Ghanaian women engineers and women engineering students, with some input from male engineering student counterparts, and male and female engineering lecturers. It was found, amongst other reasons, that the absence of counselling in secondary schools, difficulties in understanding mathematical concepts, criticism and discouragement from people and the low number of female lecturers are some of the causes of low female participation in engineering.

Author Last Name: Baryeh
Author First Name: E.A.
Additional Author: Obu
:
Additional Author: Lamptey
:
Additional Author: Baryeh
:
Additional Author: N.Y.

Publication Date: 2000, Oct
Page Numbers: 334
Publication Title: International Journal of Mechanical Engineering Education
Volume: 28
Issue: 4
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

GirlGeeks - the source for women in computing

Resource Title:	GirlGeeks - the source for women in computing
Description/Annotation:	GirlGeeks encourages women to develop their careers in technology. It also provides an online community for women interested in technology and computing.
Web site Link:	Link to Resource
Resources:	<ul style="list-style-type: none">• Career resources• Tools that you need to succeed in business• Get in touch with your inner geek• Featured girlgeeks• Update knowledge and master skills in technology• Online community
Site Access Details:	This site has both publicly accessible and private (community) areas.
Partners and Funding:	GirlGeeks was founded in 1998 by Kristine Hanna and Peter Crosby as a documentary film project about women's past, present and future impact on computing. The organization changed hands several times over the years, and reverted back to the founders in 2004.
Contact E-mail:	peter@alltogethernow.com
Last Update Date:	June 15, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Girls and Science: Does a core curriculum in primary school give cause for optimism?

Resource Title:	Girls and Science: Does a core curriculum in primary school give cause for optimism?
Description/Annotation:	This article explores the perceptions of primary pupils with regard to science since its introduction as a compulsory component of the curriculum in primary schools in England and Wales. The findings tend to replicate those of earlier studies, indicating that primary pupils, both girls and boys, view science positively while at primary school and look forward to science at secondary school. However, results show that, within science, girls' and boys' preferences are different. Girls have greater preference for

biological topics while boys demonstrate a wider range of interests.

Author Last Name: Woodward
Author First Name: Catherine
Additional Author: Woodward
:
Nicholas
Publication Date: 1998
Page Numbers: 387-400
Publication Title: Gender and Education
Volume: 10
Issue: 4
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Girls Entering Technology, Science, Math and Research Training (GET SMART): A Model for Preparing Girls in Science and Engineering Disciplines

Resource Title: Girls Entering Technology, Science, Math and Research Training (GET SMART): A Model for Preparing Girls in Science and Engineering Disciplines

Description/Annotation: In this article, it is postulated that the development of a successful training program for women in science, math, engineering, and technology (SMET) disciplines is dependent upon a combination of factors. The proposed model is based on the GET SMART (Girls Entering Technology, Science, Math and Research Training) workshop program to prepare and develop female high school students as competitive future SMET professionals. The proposed model is not intended to serve as an elaborate theory, but as a general guide in training females entering SMET disciplines.

Author Last Name: Mawasha

Author First Name: P. Ruby
Additional Author: Lam
: Paul C.
Additional Author: Vesalo
: John
Additional Author: Leitch
: Ronald
Additional Author: Rice
: Stacey
Publication Date: 2001
Page Numbers: 49-57
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 1
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational](#)
[Factors](#) » [Retention](#)

Girls Experiencing Engineering: Evolution and Impact of a Single-Gender Outreach Program

Resource Title: Girls Experiencing Engineering: Evolution and Impact of a Single-Gender Outreach Program

Description/Annotation: This paper discusses the Girls Experiencing Engineering (GEE) program, a fast-paced, interactive program that seeks to instill young women with confidence, interest, and awareness of the wide array of career opportunities within science, technology, and engineering fields. The primary goal of the GEE Program is to increase the number of girls pursuing careers in STEM fields by offering female middle school and high school students an opportunity to increase their awareness and interest levels

regarding existing and potential opportunities in the fields of mathematics, science, and engineering. This paper outlines the program evolution and the lessons learned and findings from the formal assessment of the program are described, in particular with respect to unexpected outcomes.

Author Last Name: Ivey
Author First Name: Stephanie S.
Additional Author: Palazolo
:
Paul J.
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Girls in primary school science classrooms: theorising beyond dominant discourses of gender

Resource Title: Girls in primary school science classrooms: theorising beyond dominant discourses of gender

Description/Annotation: This paper explores the ways girls appropriate gender through actions, gesture and talk to achieve things in primary school science classrooms. It draws on socio-cultural approaches to show that when everyday classroom practices are viewed from multiple planes of analysis, historical, institutional and in the micro dynamics of classroom interaction, gender comes into view in a variety of ways and not only via dominant discourses.

Author Last Name: Cervoni
Author First Name: Cieti
Additional Author: Ivinson
:
Gabrielle
Publication Date: 2011

Page Numbers: 461-475
Publication Title: Gender and Education
Volume: 23
Issue: 4
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Girls in the Middle: Working to Succeed in School

Resource Title: Girls in the Middle: Working to Succeed in School
Description/Annotation: This report presents results of a qualitative study of middle school girls, detailing common strategies that girls use to meet challenges of the educational system. The report also suggests strategies for educational reform intended to benefit girls in middle school education.
Author Last Name: AAUW
Publisher: American Association of University Women
Publisher Location: Washington, DC
Publication Date: 1996
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Girls Inc.

Resource Title: Girls Inc.
Description/Annotation: Girls Incorporated is a national nonprofit youth organization dedicated to inspiring all girls to be strong, smart, and bold.

Web site Link: [Link to Resource](#)

More: Girls Inc develops research-based informal education programs that encourage girls to take risks and master physical, intellectual and emotional challenges. Major programs address math and science education, pregnancy and drug abuse prevention, media literacy, economic literacy, adolescent health, violence prevention, and sports participation.

Resources: Resources include:

- Useful 'Fact Sheets' for talking with girls about sexuality, violence, substance abuse, economic literacy, media, sports, community and more

Site Access Details: This site is publicly accessible.

Partners and Funding: Girls Inc. is a nonprofit organization that receives 77 percent of its revenue from public support?corporations, foundations, government grants, and individuals. The remainder comes from affiliate dues, fees, interest and dividends.

Contact E-mail: communications@girlsinc.org

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Girls Reaching and Demonstrating Excellence (GRADE) Camps: An Innovative Recruiting Strategy at the University of Houston to Increase Female Representation in Engineering

Resource Title: Girls Reaching and Demonstrating Excellence (GRADE) Camps: An Innovative Recruiting Strategy at the University of Houston to Increase Female Representation in Engineering

Description/Annotation: This paper discusses the University of Houston Cullen College of Engineering's GRADE (Girls Reaching and Demonstrating Excellence) Camps. This innovative weeklong summer day camp is designed to introduce ninth through twelfth grade high school females to the marvels of engineering. Through exercises, the girls develop a working knowledge of fundamental engineering concepts involved in building the robot and discover the fun of creating a working design. The girls interact with local female

engineers, faculty, and undergraduate and graduate students throughout the week.

Author Last Name: Glover
Author First Name: John R.
Additional Author: Ruchhoeft
:
Additional Author: Jennifer L.
Additional Author: Trenor
:
Additional Author: Julie Martin
Additional Author: Long
:
Additional Author: Stuart A.
Additional Author: Claydon
:
Additional Author: Frank J.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Girls Rise: Raising Interest in Science and Engineering

Resource Title: Girls Rise: Raising Interest in Science and Engineering

Description/Annotation: Model program that showcases how an informal, non-competitive learning environment, that includes hands-on, reality based application of engineering principles and teamwork, can build self confidence and encourage girls to develop an interest in science, engineering, and mathematics related careers.

Web site Link: [Link to Resource](#)

More: Program includes:

- Saturday sessions - girls become deeply involved in technology related activities, enabling them to gain knowledge

of sophisticated computer programs and technologies utilized by professional engineers.

- Career Academies - hands-on investigations of science and mathematics concepts and interaction with female role models working in the field of engineering.
- Summer Academy - teams work on selected engineering project.
- Design and build table top exhibits which demonstrate Museum exhibit-related science concepts to Miami Science Museum visitors.

Resources: Mechanical, structural and electrical exploration activity resources.

Site Access Details: This site is publicly accessible.

Partners and Funding: Girls RISE (Raising Interest in Science and Engineering)

Contact Name: Lucia Enriconi

Contact E-mail: lenriconi@miamisci.org

Last Update Date: June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors](#) » [Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Girls Worse at Math? No Way, Analysis Shows

Resource Title: Girls Worse at Math? No Way, Analysis Shows

Description/Annotation: Article summarizes a report that shows girls can do just as well at math as boys, even at the genius level, if they are given the same opportunities and encouragement. Report points to gender inequality as root cause for why more high excelling females in math are not identified.

Author Last Name: Fox

Author First Name: Maggie

Publisher: Thomson Reuters

Publication Date: 2009, Jun 1

Source: Reuters

Source Type: Full text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical
Categories: Individual Beliefs and Behaviors » CognitionEducational Factors Individual Beliefs and
Behaviors Educational Factors » Stereotype Threat on Testing

Girls' and boys' developing interests in math and science: Do parents matter?

Resource Title:	Girls' and boys' developing interests in math and science: Do parents matter?
Description/Annotation:	This paper summarizes a study analyzing relations between parents' math and science--promotive behaviors, attitudes, and their children's later activity choices, values, and achievement in these subjects.
Author Last Name:	Jacobs
Author First Name:	Janis E.
Additional Author:	Bleeker
:	Martha M.
Publication Date:	2004
Page Numbers:	5-21
Publication Title:	New Directions for Child and Adolescent Development
Volume:	2004
Issue:	106
Source:	Wiley
Source Type:	Abstract, Full Text Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Cultural Influences » FamilyIndividual Beliefs and Behaviors » Family &
Peers Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career
Interest/Awareness

Girls' Experience in the Classroom

Resource Title:	Girls' Experience in the Classroom
Description/Annotation:	Examines influences that occur within the classroom (i.e., interest levels, confidence levels, peer interactions, teacher interactions, and performance) that differentiate the male and female

classroom experience. Offers remediation tactics for educators at the individual and organizational levels.

Author Last Name: Bachman
Author First Name: K. R. O.
Additional Author: Hebl
:
Michelle R.
Additional Author: Martinez
:
Larry Ross
Additional Author: Rittmayer
:
Ashley D.
Publisher: SWE-AWE, NAE-CASEE
Publication Date: 2009
Volume: Applying Research to Practice (ARP) Series
Source: ARP
Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Girls, robots, and science education

Resource Title: Girls, robots, and science education
Description/Annotation: This article describes various robotics-related activities that can be presented in the classroom to foster positive attitudes toward careers in robotics among girls while engaging students in minds-on, hands-on learning experiences.
Author Last Name: Rogers
Author First Name: J. Jill
Additional Author: Lisowski
:
Marylin
Additional Author: Rogers

: Amy A.
Publication Date: 2006, Mar
Page Numbers: 62
Publication Title: Science Scope
Volume: 29
Issue: 6
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Girlstart

Resource Title: Girlstart

Description/Annotation: Award-winning non-profit program in Austin, Texas, focused on encouraging girls to be successful in math, science, engineering and technology through a variety of after-school programs, workshops, summer camps, community events, free online lessons, hands-on activities, websites and other online resources.

Web site Link: [Link to Resource](#)

Logo:

Resources: Hands-on activities, experiments, puzzles, lessons, recommended website and links, games, blog, suggested reading material.

Partners and Funding: Fox7 KTBC Austin National Science Foundation The Dell Foundation Texas State Technical College System Silicon Laboratories Intel AMD Applied Materials Motorola Texas Pioneer Foundation ExxonMobil Women's Fund of Central Texas IBM Topfer Family Foundation Google bmc Software Young Women's Alliance Foundation freescale Semiconductor National Instruments Kodosky Foundation Strake Foundation Maxwell, Locke & Ritter Samsung Texas Gas Service Pape Foundation The Junior League of Austin 3M LCRA

Contact Name: Jennifer Hill Robenalt

Contact E-mail: Jennifer@hooplamedia.com

Last Update Date: May 20, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Giving back: Engaging young women engineers in community-based design

Resource Title: Giving back: Engaging young women engineers in community-based design

Description/Annotation: This paper discusses the Virtual Development Center (VDC) at the University of Arizona which committed itself to increasing retention of women students through improving the quality of educational experiences. The approach was to develop programming and coursework for cohorts of women engineering undergraduates. The center focuses on opportunities both within and outside the curriculum spanning the 4 undergraduate years. This paper outlines the rationale for this work, describes the specific approaches, goals, and outcomes of early program activities, and reports on early evaluation efforts.

Author Last Name: Aronson

Author First Name: Meredith

Additional Author: Reyes

: Maria

Additional Author: Goldberg

: Jeff

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors » Retention](#)

Giving Women in Science, Engineering and Mathematics Support and Leadership Experience Through a Women in Science and Engineering Program at The University of Texas at El Paso

Resource Title: Giving Women in Science, Engineering and Mathematics Support and Leadership Experience Through a Women in Science and Engineering Program at The University of Texas at El Paso

Description/Annotation: This paper discusses the Women in Science and Engineering (WiSE) initiative on the University of Texas at El Paso (UTEP) campus. UTEP's WiSE program was established in the spring of 2001 with 23 students. The program began as a way to involve female, university science and engineering majors with one another through regular meetings, interesting workshops, and community outreach activities.

Author Last Name: Gomez

Author First Name: Rosa M.

Additional Author: Arciero

: Ariana

Additional Author: Nava

: Patricia

Additional Author: Del Campo

: Elvia Martin

Additional Author: Flores

: Benjamin

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Global Circuits of Gender: Women and High-Tech Work in India and the U.S.

Resource Title:	Global Circuits of Gender: Women and High-Tech Work in India and the U.S.
Description/Annotation:	Study examines variances in global workplace climates for women in IT by contrasting a U.S. company, the Indian-based subsidiary of the same U.S. company and a separate Indian company. Author looks at the potential of "global circuits" in cross national working environments that use a hybrid management approach which may diminish or exacerbate barriers for technical working women.
Author Last Name:	Poster
Author First Name:	Winifred R.
Publisher:	WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date:	2008
Page Numbers:	17
Source:	WEPAN
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Go With the Flow-A Student Leadership Opportunity Intergrating K-12 Outreach, the Society of Women Engineers Service Learning and Peer Mentoring

Resource Title:	Go With the Flow-A Student Leadership Opportunity Intergrating K-12 Outreach, the Society of Women Engineers Service Learning and Peer Mentoring
Description/Annotation:	This paper describes a multi-year project that involved the Humboldt State University Student Section of the Society of Women Engineers in a Service Learning project that now serves as a continuous outreach project to young children in the community. The SWE club oversaw the design, construction and use of a child sized flume for study of water physics that is now

on display at a local children's science museum. Students in 3 different engineering classes that were offered repeatedly over 5 semesters were directly impacted by the project.

Author Last Name: Eschenbach
Author First Name: Elizabeth
Additional Author: Cashman
:
Eileen
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Goals for Achieving Diversity in Mathematics Classrooms

Resource Title: Goals for Achieving Diversity in Mathematics Classrooms
Description/Annotation: This article considers the access of all students to the learning of meaningful mathematics. In considering the diversity of students, the author discusses the many ways in which such diversity is important and what it takes for student to succeed in mathematics, based on sociocultural theories of learning. The author also explores obstacles that some groups of students have to those paths to success and offer some thoughts to help teachers minimize the effects of those obstacles. Funded by NSF GSE under award #0346556.
Author Last Name: Herzig
Author First Name: Abbe H.
Publication Date: 2005
Page Numbers: 253-259
Publication Title: Mathematics Teacher
Volume: 99

Issue: 4
Source: NCTM
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Publications by Funder](#)
» [NSF-HRD-GSE Publications by Funder](#)

Going the Distance: Best Practices and Strategies for Retaining Engineering, Engineering Technology and Computing Students

Resource Title: Going the Distance: Best Practices and Strategies for Retaining Engineering, Engineering Technology and Computing Students

Description/Annotation: This 31-page report from the American Society for Engineering Education (ASEE) provides an overview of student retention best practices reported by approximately 60 U.S. undergraduate Engineering, Computer Science, Science, and Technology programs. Based on descriptions from deans and chairs about their school's retention practices, the report includes crosswalk tables showing which schools applied which retention practices. The report also includes a detailed examination of the retention strategies of 7 selected schools. The full report is available in PDF format.

Author Last Name: ASEE
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2012
Page Numbers: 1-31
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical](#) Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Going to school with Madame Curie and Mr. Einstein: gender roles in children's science biographies

Resource Title:	Going to school with Madame Curie and Mr. Einstein: gender roles in children's science biographies
Description/Annotation:	By exploring the history of children's biographies of Marie Curie and Albert Einstein, the two most written about scientist in children's literature, this paper taps this unutilized resource to cultivate a unique perspective on the history of gender and authority in science and science education. Through analysis of explicit discussions of womanhood and science and implicit gendering of Curie and Einstein's school experiences within these books, this study demonstrates that while much has changed in how these stories are framed the gender of the scientist is still central to how they are represented in children's literature.
Author Last Name:	Owens
Author First Name:	Trevor
Publication Date:	2009, Dec
Page Numbers:	929-943
Publication Title:	Cultural Studies of Science Education
Volume:	4
Issue:	4
Source:	Springer Link
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences](#) » [Media & Entertainment Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Good for Business: Making Full Use of the Nation's Human Capital : the Environmental Scan : a Fact-Finding Report of the Federal Glass Ceiling Commission

Resource Title: Good for Business: Making Full Use of the Nation's Human Capital : the Environmental Scan : a Fact-Finding Report of the Federal Glass Ceiling Commission

Description/Annotation: In response to the Glass Ceiling Act in 1991, the U.S. Federal Glass Ceiling Commission completed a report on the glass ceiling. Based on agreement that a glass ceiling does exist, and the fact that increasing numbers of people believe it should be shattered because it is bad for business and does not reflect the values of the people of the United States, the commission examined several areas. They researched what the barriers are, what works to overcome the barriers, and did an environmental scan to determine statistics on women and minority groups represented in business. Although published in 1995, this report is a benchmark study on the topic. Valuable for academics, industry leaders and management, government policy makers, and the workforce.

Author Last Name: Federal Glass Ceiling Commission

Publisher: United States Department of Labor

Publisher Location: Washington, D.C.

Publication Date: 1995, Mar

Page Numbers: 1-257

Source: DOL

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Good Intentions: An Experiment in Middle School Single-Sex Science and Mathematics Classrooms with High Minority Enrollment

Resource Title: Good Intentions: An Experiment in Middle School Single-Sex Science and Mathematics Classrooms with High Minority Enrollment

Description/Annotation: This study examined the effects of single-sex middle school science and mathematics classrooms with high minority enrollment on achievement, affect, peer, and teacher-student interactions. All students earned higher grades in mathematics

than in science. Girls earned higher grades than boys. The higher grades of girls were not clearly attributable to the single sex environment, and aspects of the single-sex environment interfered with boys' achievement. The single-sex environment contributed to girls', but not boys', feelings of empowerment, peer support, and positive self-concept. The curriculum and pedagogy were better suited to girls than to boys, leading to discipline problems and hostile interactions. However, boys were more engaged in technology-based activities than girls. Overall, all-boy classes were less supportive learning environments than all-girl classes.

Author Last Name: Baker
Author First Name: Dale
Publication Date: 2002
Page Numbers: 1-23
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Source: Montana State University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational](#)
[Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Graduating to a Pay Gap: The Earnings of Women and Men One Year after College Graduation

Resource Title: Graduating to a Pay Gap: The Earnings of Women and Men One Year after College Graduation

Description/Annotation: This 45-page report from the American Association of University Women (AAUW) explores the pay gap between male and female college graduates working full time one year after graduation. The report analyzes the gender pay gap after controlling for various factors known to affect earnings, such as occupation, college major, and hours worked. It also examines one immediate effect of the pay gap on many women: high levels of student loan debt burden. The full report is available in PDF format.

Author Last Name: Corbett

Author First Name: Christianne
Additional Author: Hill
: Catherine
Publisher: AAUW
Publisher Location: Washington, DC
Publication Date: 2012, Oct
Page Numbers: 1-45
Source: AAUW
Source Type: [Link to Full Text](#)

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Graduating Underrepresented African American, Latino, and American Indian Students in Science

Resource Title: Graduating Underrepresented African American, Latino, and American Indian Students in Science

Description/Annotation: This article discusses the University of Colorado Minority Arts and Sciences Program (MASP), which has been successful in retaining African American, Latino and American Indian students through to graduation in science. The experiences of MASP students shed light on factors which help retain African American, Latino and American Indian students in the sciences, as well as reasons these students are more likely to switch out of science majors than their White and Asian classmates. Students who participated in MASP graduated at higher rates than comparable White and Asian students, and at much higher rates than comparable African American, Latino and American Indian students. However, they did not graduate with higher grades than other groups. MASP's central effects seem to have been helping students build an academic community, understand the culture of science and establish relationships with science professors, rather than raising academic skills. This article will be of interest not only to those who develop or work in similar programs, but to anyone who is concerned about inequitable graduation rates in the sciences.

Author Last Name: Johnson
Author First Name: Angela
Publication Date: 2007
Page Numbers: 1-22
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 1
Source: Academia.edu
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Graduation and attrition of engineering students in Greece

Resource Title: Graduation and attrition of engineering students in Greece
Description/Annotation: This 12-page article analyzes the graduation and attrition rates of engineering students in Greece. Results indicate that in the leading engineering institution, only 27% of the students admitted in 1992–2003 graduated after the nominal five years. Results show that overall 4% of students withdraw officially during their first year.

Author Last Name: Caroni
Author First Name: Chyrs
Publisher: Taylor and Francis
Publication Date: 2011, Feb
Page Numbers: 63-74
Publication Title: European Journal of Engineering Education
Volume: 36
Issue: 1
Source: European Journal of Engineering Education

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Graduation in Engineering Related to Personality Type and Gender

Resource Title: Graduation in Engineering Related to Personality Type and Gender

Description/Annotation: This paper highlights the main connections between personality type and progress of students through the engineering program at the University of Western Ontario in terms of retention, choice of engineering discipline and engineering graduation and compares the data for male and female students. The Myers-Briggs Type Indicator (MBTI) was completed by most students entering the UWO engineering program during the years 1987-1993 and has provided a stable personality profile of the engineering entry class.

Author Last Name: Rosati

Author First Name: Peter

Publication Date: 1999

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Graduation rates, grade-point average, and changes of major of female and minority students entering engineering

Resource Title: Graduation rates, grade-point average, and changes of major of female and minority students entering engineering

Description/Annotation: This paper describes analysis of five cohorts of students matriculating into undergraduate engineering programs at nine southeastern universities from 1996-2002. Authors report retention by semester and graduation success as a percentage of all matriculated students. For students subsequently leaving engineering, authors also report grade-point average, departure semester, and destination major.

Author Last Name: Borrego

Author First Name: Maura J.

Additional Author: Padilla

: Miguel A.

Additional Author: Zhang

: Guili

Additional Author: Ohland

: Matthew W.

Additional Author: Anderson

: Timothy J.

Publication Date: 2005

Publication Title: Frontiers in Education Conference (FIE)

Source: University of Southern Mississippi

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Grants and Funds from AAAS

Resource Title: Grants and Funds from AAAS

Description/Annotation: Webpage from AAAS contains a list of places to search for information on funding programs.

Web site Link: [Link to Resource](#)

Resources: Funding sites include:

- Grants.gov
- NIH Office of Research
- NSF
- Grant Search

Site Access Details: This site is publicly accessible.

Partners and Funding: American Association for the Advancement of Science

Last Update Date: June 12, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#)

Great Progress, Great Divide: The Need for Evolution of the Recruitment Model for Women in Engineering

Resource Title: Great Progress, Great Divide: The Need for Evolution of the Recruitment Model for Women in Engineering

Description/Annotation: This paper discusses a study in which researchers surveyed the participants in an on-campus outreach program at Penn State New Kensington entitled Females Interested in Reaching for Science, Technology, and Engineering (FIRSTE) to garner information about demographics, influences, and perceptions that may have enabled their consideration of a scientific/engineering career. To determine their uniqueness, the same survey was administered to a control group of college students in non-scientific and non-engineering fields. The differences in background influences between the two groups were subtler than predicted, but the perceptions of both groups about engineering were enlightening.

Author Last Name: Gilley

Author First Name: Jennifer

Additional Author: Begolly

: Joan

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Great Science for Girls (GSG)

Resource Title: Great Science for Girls (GSG)

Description/Annotation: GSG was developed to provide inquiry-based, informal science learning programs that stimulate girls' curiosity, interest and persistence in STEM and break down the barriers of gender stereotyping. GSG delivers curricula, research, and professional development and consulting services to help promote the concept that science is, indeed, a "girl thing."

Web site Link: [Link to Resource](#)

More: To reach a large national audience, GSG is working with intermediary organization that provide training and technical assistance to a network of afterschool programs in their region. In its first three years, GSG has had an impact on more than 140 afterschool programs nationwide, reaching more than 5,700 students, 3,250 of whom were girls.

Resources: The GSG website contains a wealth of information for those who want to stimulate girls' curiosity in STEM fields, including:

- Curriculum: menu of evidence-based curricula for afterschool programs
- Take Action Resources:
 - Starter Kits
 - Planning Tools
 - Staff Development
 - STEM Strategies
- Research: to support implementation of the program
- Webcasts
- Events
- GSG Newsletter

Site Access Details: This is a publicly accessible site.

Partners and Funding: With funding from the National Science Foundation, the Educational Equity Center at the Academy for Educational Development (EEC/AED) is leading this five-year initiative. GSG

works with 13 Program Partners and is guided by an Advisory Committee.

Contact Name: Linda Colon
Contact E-mail: lcolon@fhi360.org
Last Update Date: June 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors](#) » [Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Group and Interaction Effects with “No Child Left Behind”: Gender and Reading in a Poor, Appalachian District

Resource Title: Group and Interaction Effects with “No Child Left Behind”:
Gender and Reading in a Poor, Appalachian District

Description/Annotation: Article reports on a study of reading achievement in a poor, rural school district in Appalachian West Virginia. The study indicates that gender plays a significant role in reading achievement, with an increased percentage of boys in a class negatively affecting reading achievement. The authors use this information to critique the "No Child Left Behind" policy and its tendency to oversimplify social context.

Author Last Name: Bickell
Author First Name: Robert
Additional Author: Maynard
: A. Stan
Publisher: Education Policy Studies Laboratory
Publisher Location: Tempe, AZ
Publication Date: 2004
Publication Title: Education Policy Analysis Archives
Volume: 12
Issue: 4
Source: EPAA
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Group Work in Science, Engineering, and Mathematics

Resource Title:	Group Work in Science, Engineering, and Mathematics
Description/Annotation:	This 8-page paper tells the story of a graduate physics teacher who incorporates group work into his class with negative result due to a lack of attention to racial and gender inequalities; this story is a backdrop for a discussion on the importance of race and class in the science educational environment. Offers advice on group formation and size, individual ability in groups, intersection of race and gender, leadership and group roles, project design, overcoming resistance, and fair assessment. A good overview of the complexity and importance of gender and racial diversity in science group work.
Author Last Name:	Rosser
Author First Name:	Sue V.
Publication Date:	1998
Page Numbers:	82-89
Publication Title:	College Teaching
Volume:	46
Issue:	3
Source:	CIRTL
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Growing the Representation of Women in Leadership: A Business Imperative IBM Microelectronics' PowerUp Initiative

Resource Title: Growing the Representation of Women in Leadership: A Business Imperative IBM Microelectronics' PowerUp Initiative

Description/Annotation: This 12-page paper from the 2012 WEPAN National Conference describes the IBM Microelectronics' PowerUp Initiative, a senior leadership driven enterprise change initiative focused on improving the representation of women in leadership positions. The conference paper presents how, through data collection and targeted activities, the PowerUp team is making progress on developing managers and women to achieve improved leadership representation. The full paper is available in PDF format.

Author Last Name: Cretekos

Author First Name: Mary

Additional Author: Beilstein

: Lisa

Additional Author: Dunbar

: Christine

Additional Author: Hall

: Kathleen Yanarella

Additional Author: Hall

: Dawn

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-12

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

**gseSpace: An Online Professional Networking
Environment for the Research on Gender in Science
and Engineering Community**

Resource Title: gseSpace: An Online Professional Networking Environment for the Research on Gender in Science and Engineering Community

Description/Annotation: The purpose of the gseSpace project is to make improvements in the infrastructure of the WEPAN Knowledge Center (WKC) and to develop a platform to promote online professional networking among the NSF GSE community.

Logo:

More: The major activity for the gseSpace project to-date has been the completion of a Needs Assessment to explore the ways in which the National Science Foundation Program for Research on Gender in Science and Engineering (GSE), and its stakeholders would benefit from increased opportunities to connect with each other, exchange ideas, and retrieve information resources in a dedicated, online community space.

The needs assessment has been published on a project website, <http://gsespaceproject.org>.

The next major project effort is to develop the pilot community and host webinarsto share research findings for GSE and ADVANCE presenters at the NSF JAM 2012 conference.

Resources:

The project has the following goals:

Goal 1: Make technical enhancements for advanced requirements of GSE community

Goal 2: Assess GSE community needs and preferences to define specifications for pilot professional networking environment

Goal 3: Develop and introduce pilot professional networking environment

Goal 4: Gather and analyze data on pilot professional networking environment

Site Access Details: The gseSpace project team uses a private collaboration group within the WEPAN Knowledge Center Professional Community for all project team communications.

Partners and Funding: gseSpace is funded under NSF grant # 1016711.

Contact Name: C. Diane Matt

Contact E-mail: gspacespace@wepan.org

Last Update Date: July 13, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors » Professional Development](#)

Guide to Promising Practices in Informal Information Technology Education for Girls

Resource Title: Guide to Promising Practices in Informal Information Technology Education for Girls

Description/Annotation: This guide from NCWIT and Girl Scouts of the USA identifies the top eight promising practices to interest, educate, and support girls grades 6 to 12 in learning about IT. The top eight practices were the result of the Girl Scout project, which surveyed 156 informal IT education programs nationwide, asking them which promising practices most contributed to the success of their programs. Each promising practice includes an overview, key strategies/tips, examples of hands-on activities, and relevant quotes from girls involved in IT programs.

Author Last Name: NCWIT

Additional Author: Girl Scouts of the USA

Additional Author: Liston

: Carrie

Additional Author: Peterson

: Karen

Additional Author: Ragan

: Vicky

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2007, May 14

Source: NCWIT

Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors Educational Factors » Informal Academic Preparation

Handbook for Achieving Gender Equity

Resource Title:	Handbook for Achieving Gender Equity
Description/Annotation:	Seminal work providing 20-year retrospective of gender equity issues in education. Reflects over 200 expert authors, global perspectives, and includes recommendations for educators, policymakers and researchers.
Author Last Name:	Klein (ed.)
Author First Name:	Susan S.
Additional Author:	Richardson
:	Barbara
Additional Author:	Grayson
:	Delores A.
Additional Author:	Fox
:	Lynn H.
Additional Author:	Kramarae (et al.)
:	Cheris
Publisher:	Routledge, Inc.
Publication Date:	2007, May
Page Numbers:	768
Source:	Feminist Majority Foundation
Source Type:	Abstract, Available for sale

Resource Type Categories: Guide/Handbook Topical Categories: Cultural Influences Cultural Influences » Gender Diversity

Hands-On Optics: A new model for informal science education

Resource Title: Hands-On Optics: A new model for informal science education

Description/Annotation: Hands-On Optics is a unique, national, inquiry-based informal science education program for students in who have traditionally been under-represented in the field of optics and photonics. The Hands-on Optics program is built around six learning modules. Each module features a series of eight to 12 fun and challenging activities designed to get middle school students interested in science, math, and technology through optics and photonics.

Web site Link: [Link to Resource](#)

More: The program is targeted to middle-school where students' long-term attitudes about science and engineering are formed. However, program elements are adaptable and can be used successfully with students as early as 4th grade and throughout high school.

Resources: The HOO program is built around [six learning modules](#). Each module features a series of eight to 12 fun and challenging activities designed to get students interested in science, math, and technology through optics and photonics.

Site Access Details: This site is publicly accessible.

Partners and Funding: Partners: The National Optical Astronomy Observatory, Optical Society of America, The International Society for Optical Engineering

Last Update Date: May 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Hard bargaining on the hard drive: gender bias in the music technology classroom

Resource Title: Hard bargaining on the hard drive: gender bias in the music technology classroom

Description/Annotation: Drawing on empirical data, this paper examines gender issues around the use of digital technologies for music composition. Increased investment in digital music technologies in music classrooms in the United Kingdom has produced a situation whereby 'composition' has become synonymous with 'music

technology suite'. While this has generated much discussion around issues of pedagogy and educational outcomes, there has been less attention paid to the sociological aspects of this digital shift.

Author Last Name: Armstrong
Author First Name: Victoria
Publication Date: 2008
Page Numbers: 375-386
Publication Title: Gender and Education
Volume: 20
Issue: 4
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Harnessing the Power of Story

Resource Title: Harnessing the Power of Story

Description/Annotation: This professional development training video features Stanford Marketing Professor Jennifer Aaker who demonstrates the importance of story in shaping how others see you and as a tool to persuade. The video includes the elements of successful stories and makes the case for developing a portfolio of signature stories. The resource also includes a discussion guide available in PDF format.

Author Last Name: Aaker
Author First Name: Jennifer
Additional Author: Michelle R. Clayman Institute for Gender Research
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2012
Source: Stanford University

Source Type: Video and PDF Full Text

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors » Professional Development](#) [Webinars: WEPAN](#) [Professional Development Series](#)

Harvard Business Review on Work and Life Balance

Resource Title: Harvard Business Review on Work and Life Balance

Description/Annotation: Top leaders in the field contribute articles on work-life balance, telecommuting, the mommy-track, alternative workplace ideas, and more. Ideas for employers to help employees balance their work and personal lives. Valuable advice for leadership and management in the workplace.

Author Last Name: Harvard Business Review

Publisher: Harvard Business School Press

Publisher Location: Boston, MA

Publication Date: 2000, Jun

Page Numbers: 1-256

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Family Issues](#) [Career Factors » Professional Development](#)

Has Feminism Changed Science?

Resource Title: Has Feminism Changed Science?

Description/Annotation: This book offers an overview of the status of women in science and the interaction between feminism and science, particularly looking for gender as it enters into the culture and substance of science. Some of the specific scientific fields discussed are medicine, primatology, archaeology, human origins, biology, physics, and math. Touches on several of the most important themes of current feminist science research, including equity measure and the gendered "pipeline effect" in science.

Author Last Name: Schiebinger
Author First Name: Londa
Publisher: Harvard University Press
Publisher Location: Cambridge, MA
Publication Date: 1999
Database Name: Google Book Search
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Cultural Influences » Gendered Occupations & Study Choices](#)

Having the Talk: Engaging Engineering Students in Discussions on Gender and Inequity

Resource Title: Having the Talk: Engaging Engineering Students in Discussions on Gender and Inequity

Description/Annotation: The article examines the efforts of the Women @ CENS program to engage both male and female engineering and computer science undergraduates in discussions on gender and disparities between the sexes in these fields. The program provided an intensive research internship for 48 undergraduate students from across the nation. A key component of the program was to encourage students to critically analyze their learning environments and experiences within them. Qualitative and quantitative program evaluation results reveal a range of reactions from men and women participants to these kinds of discussions.

Author Last Name: Han
Author First Name: June C.
Additional Author: Sax
:
Linda J.
Additional Author: Kim
:
Karen A.
Publication Date: 2007
Page Numbers: 145-163

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational](#)
[Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Hi-tech = Guy-tech? An Exploration of Undergraduate Students' Gendered Perceptions of Information and Communication Technologies

Resource Title: Hi-tech = Guy-tech? An Exploration of Undergraduate Students' Gendered Perceptions of Information and Communication Technologies

Description/Annotation: A 12-page report of a study to examine whether gendered perceptions of information and communication technology exist among undergraduates and reasons for the gender stereotyping of this technology. Includes quantitative survey data on the gendered perceptions of various types of technology and technological tasks. Ultimately, the author found that gendered perceptions of technology had not disappeared, but would require continued study.

Author Last Name: Selwyn
Author First Name: Neil
Publication Date: 2007
Page Numbers: 525-536
Publication Title: Sex Roles
Volume: 56
Issue: 38175
Source: SpringerLink
Source Type: Abstract

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Cultural Influences Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness Cultural Influences » Stereotype Threat

High School Math and Science Teachers' Awareness of Gender and Equity Issues from a Research-Based Workshop

Resource Title: High School Math and Science Teachers' Awareness of Gender and Equity Issues from a Research-Based Workshop

Description/Annotation: This paper presents the results of a research-based workshop on issues that inhibit females from enrolling in college curricula that lead to STEM degrees and careers. The workshop was presented to 48 high school math and science teachers (80% female and 20% male) from four school districts who were participating in a four-course sequence of math, science, and engineering classes as part of a National Science Foundation sponsored Math Science Partnership project entitled, Project Pathways. The results showed that all teachers were aware that gender-equity issues existed in K-12 science and math classrooms.

Author Last Name: Krause

Author First Name: Stephen

Additional Author: Burrows
: Veronica

Additional Author: Sutor
: Judy

Additional Author: Carlson
: Marilyn

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

High-Achieving Women, 2001

Resource Title: High-Achieving Women, 2001

Description/Annotation: This 64 page report includes 40 charts and tables and in-depth information about highly-educated, high-earning working women. The nationwide survey examined men and women in regards to their personal and professional lives in order to form a picture of these women and their attitudes about work, marriage, and children. Many different groups were surveyed including different ages, ethnicity, and wage levels. A group of "high-potential" women were included as well to profile the attitudes of women who have left the workforce for family reasons. Valuable data on professional women for other professionals and industry.

Author Last Name: Hewlett

Author First Name: Sylvia Ann

Additional Author: Buck Luce

: Carolyn

Additional Author: Shiller

: Peggy

Additional Author: Southwell

: Sandra

Publisher: Center for Work-Life Policy

Publisher Location: New York, NY

Publication Date: 2001

Page Numbers: 1-64

Source: CTI

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Higher Education: Gaps in Access and Persistence Study

Resource Title: Higher Education: Gaps in Access and Persistence Study

Description/Annotation: This 297-page report from the National Center for Education Statistics (NCES) is a congressionally-mandated statistical report that documents the scope and nature of gaps in access and persistence in higher education by sex and race/ethnicity. The report presents 46 indicators grouped under seven main topic areas: demographic context; characteristics of schools; student behaviors and afterschool activities; academic preparation and achievement; college knowledge; postsecondary education; and postsecondary outcomes and employment. In addition, the report contains descriptive multivariate analyses of variables that are associated with male and female postsecondary attendance and attainment. The full report is available in PDF format, as well as a browsable webpage.

Author Last Name: Ross

Author First Name: Terris

Additional Author: Kena

: Grace

Additional Author: Rathbun

: Amy

Additional Author: KewalRamani

: Angelina

Additional Author: Zhang

: Jijun

Publisher: U.S. Department of Education, NCES

Publisher Location: Washington, DC

Publication Date: 2012, Aug

Page Numbers: 1-297

Source: NCES

Source Type: Full Text

Resource Type Categories: Data and Statistics » Reports Articles/Reports » US National Reports Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation

Highlights From TIMSS 2011: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context

Resource Title: Highlights From TIMSS 2011: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context

Description/Annotation: This report from the National Center for Education Statistics (NCES) focuses on the performance of U.S. students relative to their peers in other countries in 2011, and on changes in mathematics and science achievement since 2007 and 1995. This report also describes achievement within the United States by sex, race/ethnicity, and enrollment in public schools with different levels of poverty. In addition, it describes achievement in nine states that participated in TIMSS both as part of the U.S. national sample of public and private schools as well as individually with state-level samples of public schools. The full report is available in PDF format.

Author Last Name: Provasnik

Author First Name: Stephen

Additional Author: Kastberg
:
David

Additional Author: Ferraro
:
David

Additional Author: Lemanski
:
Nita

Additional Author: Roey
:
Stephen

Publisher: U.S. Department of Education

Publisher Location: Washington, D.C.

Publication Date: 2012, Dec
Page Numbers: 1-39
Publication Title: NCES 2013-009
Source: NCES
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Hispanic Students Majoring in Science or Engineering: What Happened in Their Educational Journeys?

Resource Title: Hispanic Students Majoring in Science or Engineering: What Happened in Their Educational Journeys?

Description/Annotation: A 26-page article containing the results of interviews with 22 male and female Hispanic students majoring in science or engineering. Encouraging influences included family, teacher and community support along with challenging curriculum and strong academic preparation.

Author Last Name: Brown

Author First Name: Susan Wightman

Publisher: Begell House

Publisher Location: New York, NY

Publication Date: 2002

Page Numbers: 123-148

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

HIV Microbicides: Rethinking Research Priorities and Outcomes

Resource Title: HIV Microbicides: Rethinking Research Priorities and Outcomes

Description/Annotation: This case study from Stanford's "Gendered Innovations" analyzes how a shift in research priorities in a particular mechanical engineering lab led to increased numbers of women working in the lab. Women were drawn to applied physicist Andrew Szeri's lab when research came to focus on the fluid mechanics of gels to deliver female-controlled HIV microbicides. Results indicated that increasing women's participation in engineering may require reconceptualizing research to include methods of sex and gender analysis in creative and forward-looking ways.

Author Last Name: Schiebinger

Author First Name: L.

Additional Author: Klinge

:

I.

Additional Author: Sanchez de Madariaga

:

I.

Additional Author: Schraudner

:

M.

Publisher: Stanford University

Publisher Location: Stanford, CA

Publication Date: 2011

Publication Title: Gendered Innovations in Science, Health and Medicine, and Engineering

Source: Stanford University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Honoring Culture, Diversifying the Workforce, Strengthening Science

Resource Title: Honoring Culture, Diversifying the Workforce, Strengthening Science

Description/Annotation: “Excite Camp” focuses on keeping middle school girls engaged in math and science. The objective the program is to rekindle and bolster the interest and build self-efficacy of Native Hawaiian girls in science, technology, engineering and math (STEM) before they enter high school. Excite Camp exposes Native Hawaiian girls to real-world science applications with connections to their native culture and history.

Author Last Name: Wilkins

Author First Name: Leslie

Additional Author: Gaskin

: Jenilynne Salvador

Additional Author: Kuluhiwa

: Kawailehua

Additional Author: Sodersten

: Shawna

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 11

Source: WEPAN

Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Household Labor and the Routine Production of Gender

Resource Title: Household Labor and the Routine Production of Gender

Description/Annotation: This 18-page article qualitatively analyzes the results of interviews with 20 dual-income couples. Each couple had two or three young school-age children and reported that the father takes on a significant portion of the child-rearing. However, many of the fathers still functioned, and thought of themselves as, "helpers" to the mothers' responsibilities for home and children.

Author Last Name: Coltrane

Author First Name: Scott

Publisher: University of California Press

Publication Date: 1989, Dec

Page Numbers: 473-490

Publication Title: Social Problems

Volume: 36

Issue: 5

Source: JSTOR

Source Type: Partial text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Housework is an Academic Issue

Resource Title: Housework is an Academic Issue

Description/Annotation: Article in AAUP's *Academe* about a study from Stanford's Michelle R. Clayman Institute for Gender Research on division of household labor among science faculty couples.

Author Last Name: Schiebinger

Author First Name: Londa

Additional Author: Gilmartin

:

Publisher: AAUP

Publication Date: 2010, Jan - Feb

Publication Title: Academe

Source: AAUP

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

How African American Middle School Girls Position Themselves as Mathematics and Science Learners

Resource Title: How African American Middle School Girls Position Themselves as Mathematics and Science Learners

Description/Annotation: The purpose of this research was to examine how rising sixth-grade African-American girls, from local schools perceived and experienced mathematics and science instruction during their primary school years. It also focused on school-related factors and the sociocultural conditions affecting African-American girls' positionalities toward mathematics and science achievement in relation to their gender and ethnic identities. This mixed method research involved a purposeful sampling of rising sixth grade African-American girls, parents, primary school teachers of mathematics and science instruction, school support personnel, and school administrators. The mixed research methodology involved classroom observations, collection of participants' artifacts, and semi-structured in-depth interviews with adolescent girls, parents, teachers, school support personnel, and principals. The interviews were audio taped and transcribed. Analysis was conducted with the use of NVIVO (v. 2.0), a qualitative analysis software tool. The results of this study provide implications for educational research and evaluation of culturally embedded constructs and socio-cultural frameworks to enhance the assessment and research process for culturally diverse learners. Funded by NSF GSE under award #0734028.

Author Last Name: West-Olatunji

Author First Name: Cirecie

Additional Author: Pringle

: Rose

Additional Author: Adams

: Thomasenia
Additional Author: Baratelli
: Adriana
Additional Author: Goodman
: Rachael
Publication Date: 2007
Page Numbers: 219
Publication Title: International Journal on Learning
Volume: 14
Source: CGPublisher
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors »
Faculty Student Interaction Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-
GSE Publications by Funder Individual Beliefs and Behaviors » Self-perception Individual Beliefs and
Behaviors » STEM Career Interest/Awareness

How Can Companies Achieve Organizational Diversity? Establishing Institutional Accountability (Case Study 1)

Resource Title: How Can Companies Achieve Organizational Diversity?
Establishing Institutional Accountability (Case Study 1)

Description/Annotation: Not all diversity programs are created equal. Those that establish
organizational accountability for diversity, whether in the form of
full-time diversity staff or a diversity task force, have a far greater
impact on increasing the representation of women and minorities
in management than either mentoring or diversity training
programs.

Author Last Name: Ashcraft
Author First Name: Catherine
Publisher: National Center for Women and Information Technology
(NCWIT)

Publication Date: 2008
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

How Can Companies Attract and Retain Mid-Career Female Employees? Constructing On-Ramps (Case Study 1)

Resource Title: How Can Companies Attract and Retain Mid-Career Female Employees? Constructing On-Ramps (Case Study 1)

Description/Annotation: Lehman Brothers Encore program, created by chief diversity officer Anne Erni, is an innovative initiative that aims to recruit and support professionals who have left the workforce but are interested in resuming their careers. The program began in response to the “Off-Ramps and On-Ramps” study published in Harvard Business Review in March 2005. Also, Recent media attention to the so-called “opt-out revolution” – the emerging trend where well-qualified women choose to leave productive careers – paints a simplistic picture of successful women choosing to leave high-profile positions to spend more time with their families. Systematic research reveals several complicating factors that are important for corporations to understand if they are to retain top female talent.

Author Last Name: Ashcraft
Author First Name: Catherine
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007, May 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#) [Career Factors » Retention](#)

How Can Companies Attract and Retain Mid-Career Female Employees? Military Spouse Reentry Programs (Case Study 2)

Resource Title:	How Can Companies Attract and Retain Mid-Career Female Employees? Military Spouse Reentry Programs (Case Study 2)
Description/Annotation:	Military spouses are a large and often overlooked population that could be well-served by IT training and could bring more diversity to IT. The Women in Technology (WIT) Military Spouse Certificate Program is one innovative program that attempts to meet this need by providing scholarships and information technology (IT) training for female spouses of military personnel in Colorado Springs. Supported by a grant from the U.S. Department of Labor and by Base Realignment and Closure (BRAC) funds, the WIT program is a joint effort of the Colorado Department of Labor and Employment, the Pikes Peak Workforce Center, Pikes Peak Community College, Volt Technical Services, and two local military bases.
Author Last Name:	Ashcraft
Author First Name:	Catherine
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2008
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Family Issues](#) [Career Factors » Hiring Practices](#) [Individual Beliefs and Behaviors](#) [Career Factors » Retention](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

How Can Companies Promote Innovation with Diverse Employees? Patenting Learning Communities (Case Study 1)

Resource Title:	How Can Companies Promote Innovation with Diverse Employees? Patenting Learning Communities (Case Study 1)
Description/Annotation:	Diverse work teams can improve innovation, problem-solving, and productivity, according to several recent studies. The London Business School found that work teams with equal numbers of men and women were more likely to experiment, be creative, share knowledge, and fulfill tasks. Similarly, an NCWIT study, revealed that mixed-gender teams produce IT patents that are more highly cited. Additional studies indicate that, under the right conditions, teams comprising diverse members consistently outperform teams project teams comprising “highest-ability” members (Page, 2007).
Author Last Name:	Ashcraft
Author First Name:	Catherine
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2008
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Organizational Culture](#)

How Can I Prepare for a Computing Major?

Resource Title:	How Can I Prepare for a Computing Major?
Description/Annotation:	This one page NCWIT resource is modified from ACM and CSTA resources. It offers advice regarding the proper steps to take during high school to prepare for an undergraduate computing major. Available in pdf format, this resource offers computer-specific recommendations for each year of high school, as well as links to college planning checklists and resources.

Author Last Name: NCWIT
Additional Author: CSTA
Additional Author: ACM
Publisher: NCWIT
Publication Date: 2011, Oct 01
Page Numbers: 1
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

How Can Leader-Member Relationships Promote Women's Retention and Advancement? Taking Stock of Leader-Member Relationships (Case Study 1)

Resource Title: How Can Leader-Member Relationships Promote Women's Retention and Advancement? Taking Stock of Leader-Member Relationships (Case Study 1)

Description/Annotation: Conduct “relationship audits” to periodically measure the quality of the leader-member relationships in your organization. This information will allow you to benchmark the relationships and track changes in response to your deliberate attempts to improve them. The following survey items can help you accomplish these tasks. The unique working relationship between a supervisor or department head and each individual employee or faculty member affects both organizational and personal outcomes.

Author Last Name: Cohoon
Author First Name: J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2009
Page Numbers: 2

Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

How Can Organizations Reap the Benefits of a Diverse Workforce? Assessing the Organization's Diversity Paradigm

Resource Title: How Can Organizations Reap the Benefits of a Diverse Workforce? Assessing the Organization's Diversity Paradigm

Description/Annotation: Too often, organizations focus on merely recruiting employees from different demographic groups, mistakenly hoping the benefits of diversity will magically follow. Whether or not an organization will fully benefit from diversity, however, depends on how its members answer the questions, “What do we do with this diversity? Why do we want a diversified workforce?” Organizations must explicitly address these questions if they are to prevent diversity efforts from backfiring and if they are to reap the oft-touted benefits of better performance and productivity. Engaging in conversations about these questions is essential, then, even if such conversations initially seem time-consuming, abstract, or even ominous.

Author Last Name: Ashcraft

Author First Name: Catherine

Publisher: National Center for Women and Information Technology (NCWIT)

Publisher Location: Boulder, CO

Publication Date: 2007, Nov 1

Page Numbers: 2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Hiring Practices](#)

How Can Organizations Recruit Diverse Talent in Ways that Promote Innovation and Productivity? Interview Strategies that Identify Functionally Diverse Perspectives (Case Study 1)

Resource Title:	How Can Organizations Recruit Diverse Talent in Ways that Promote Innovation and Productivity? Interview Strategies that Identify Functionally Diverse Perspectives (Case Study 1)
Description/Annotation:	Work teams with high levels of functional diversity — diversity in the way an individual frames and solves problems — can significantly increase innovation and productivity. To reap this benefit, organizations need to identify and recruit talent with diverse patterns of thinking or problem-solving. This need is especially great for organizations in competitive and fast-paced environments like IT. Here are some suggestions for interview strategies that help identify functionally diverse perspectives.
Author Last Name:	Ashcraft
Author First Name:	Catherine
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2008
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#) [Career Factors » Professional Development](#)

How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Gender Bias in Recruitment/Selection Processes (Case Study 2)

Resource Title: How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Gender Bias in Recruitment/Selection Processes (Case Study 2)

Description/Annotation: Research shows that even individuals committed to equality harbor unconscious biases that impact everyday decisions and interactions. In the IT workplace, unconscious gender bias can mislead employers, both male and female, to make inaccurate judgments in hiring, performance reviews, and promotion. This case study focuses on the profound effect unconscious bias can have on the recruitment and selection process — from crafting and distribution of job postings to interviewing and hiring. Steps are offered for overcoming this bias.

Author Last Name: Ashcraft

Author First Name: Catherine

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2010, May

Source: NCWIT

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Stereotype Threat](#)

How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Unintended Gender Bias in Letters of Recommendation (Case Study 1)

Resource Title: How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Unintended Gender Bias in Letters of Recommendation (Case Study 1)

Description/Annotation: Research shows that even individuals committed to equality harbor unconscious biases that impact everyday decisions and interactions. In the IT workplace, unconscious gender bias can mislead employers, both male and female, to make inaccurate judgments in hiring, performance reviews, and promotion. This case study highlights findings on the differences between letters of recommendation for women and men and gives practical ways to reduce bias when writing letters of recommendation.

Author Last Name: Barker
Author First Name: Lecia
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2010, May
Page Numbers: 2
Source: NCWIT
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

How can REUs Help Retain Female Undergraduates? Affinity Research Groups (Case Study 2)

Resource Title: How can REUs Help Retain Female Undergraduates? Affinity Research Groups (Case Study 2)

Description/Annotation: This resource from the National Center for Women & Information Technology discusses Research Experiences for Undergraduates (REUs) that can increase rates at which women and under-represented minorities enter the highest levels of IT research and development. It also discusses the Affinity Research Group model (ARG). The results of this model are greater engagement, increased confidence, increased likelihood of pursuing a graduate degree, and the development of collaboration skills.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2009
Page Numbers: 2
Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

How can REUs Help Retain Female Undergraduates? Faculty Perspectives (Case Study 1)

Resource Title: How can REUs Help Retain Female Undergraduates? Faculty Perspectives (Case Study 1)

Description/Annotation: Researchers Anne-Barrie Hunter, Sandra Laursen, and Elaine Seymour (co-author of *Talking About Leaving: Why Students Leave the Sciences*) interviewed 64 computer science, math, engineering, and science faculty members involved in undergraduate research programs. Faculty described several benefits of being involved: faculty career gains; pleasure of working with students as research colleagues; intellectual and professional growth; and satisfaction in students' "becoming scientists."

Author Last Name: Barker

Author First Name: Lecia

Additional Author: Cohoon

: J. McGrath

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2007-2008

Page Numbers: 2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

How Can Unbiased Software Facilitate Girls' Interest in IT? A Checklist for Evaluating Software (Case Study 1)

Resource Title:	How Can Unbiased Software Facilitate Girls' Interest in IT? A Checklist for Evaluating Software (Case Study 1)
Description/Annotation:	To avoid gendered outcomes, we recommend that teachers carefully select and use software that appeals to girls as well as boys. A sample tool for guiding this selection is provided.
Author Last Name:	Wu
Author First Name:	Zhen
Additional Author:	Cohoon
:	J. McGrath
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2006, Nov 1
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Media & Entertainment](#) [Cultural Influences](#) » [Stereotype Threat](#)

How Can You Re-Engineer Your Undergraduate Program to Increase Women's Representation in Computing? Small Steps Toward Systemic Change (Case Study 1)

Resource Title:	How Can You Re-Engineer Your Undergraduate Program to Increase Women's Representation in Computing? Small Steps Toward Systemic Change (Case Study 1)
Description/Annotation:	No simple or single explanation accounts for the gender imbalance in computing. No admission requirement forbids women's entry. No instructional practice or content is beyond women's ability to master. No female shortcoming requires compensation. No formal policies of exclusion exist. Instead, the

gender imbalance results from a complex process of factors in which our normal educational system intersects with socialization and stereotypes about gender and technology to steer women away from computing.

Author Last Name: Cohoon
Author First Name: J. McGrath
Additional Author: Barker
:
Lecia
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2008
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#) [Cultural Influences » Stereotype Threat](#)

How Did They Fare: Women and Underrepresented Minority Engineering and Computer Science Students in a Five-Year Program

Resource Title: How Did They Fare: Women and Underrepresented Minority Engineering and Computer Science Students in a Five-Year Program

Description/Annotation: Description of Collaborative Interdisciplinary Research Community (CIRC) program at University of Arizona to help academically sound junior and senior engineering and computer science students with financial need to improve retention and graduation rates, to expand their horizons about the field of engineering, to provide professional improvement, and to encourage the students to go on to graduate school full-time right after completing their degree. The program focused on women and underrepresented minority engineering and computer science students who made up close to 60% of the total enrollment in the

program. Funded by NSF SSTEM under award #0324212, #0123146, & #0631189.

Author Last Name: Anderson-Rowland
Author First Name: Mary R.
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Source: WEPAN
Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Publications by Funder »
NSF-DUE-SSTEM Publications by Funder Educational Factors » Retention Diversity Orgs & Pgms for
Women and Girls » STEM/Diversity University Programs

How do Admissions Criteria Affect Women's Representation in Graduate Computing? (Case Study 1)

Resource Title: How do Admissions Criteria Affect Women's Representation in Graduate Computing? (Case Study 1)

Description/Annotation: Leading practitioners recommend using “broad admission criteria” to increase women’s representation in computer science and computer engineering (CSE) graduate programs. Their experience confirms research findings that show broad criteria like applicants’ life experiences and membership in an underrepresented group result in more women admitted without lowering standards. For example, a nationwide study of CSE graduate programs conducted by NCWIT social scientist, J. McGrath Cohoon, shows that faculty support for these criteria results in more women enrolled regardless of program size or quality.

Author Last Name: Cohoon
Author First Name: J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007, Nov 1

Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Admissions Bias](#) [Educational Factors](#)

How Do Career Strategies, Gender, and Work Environment Affect Faculty Productivity Levels in University-Based Science Centers?

Resource Title: How Do Career Strategies, Gender, and Work Environment Affect Faculty Productivity Levels in University-Based Science Centers?

Description/Annotation: This 19-page article analyzes the productivity and comfort of faculty researchers in multi-disciplinary science centers. Female faculty were found to be as productive as the male faculty when variables such as discipline, marital status, number of children, and years since degree were controlled. However, women were much more likely to feel discriminated against in research centers. These two findings seem somewhat at odds with each other and merit further research.

Author Last Name: Corley
Author First Name: Elizabeth
Publisher: Policy Studies Organization
Publisher Location: Washington, D.C.
Publication Date: 2005, Sep 21
Page Numbers: 637-655
Publication Title: Review of Policy Research
Volume: 22
Issue: 5
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Stereotype Threat](#)

How do Stereotype Threats Affect Retention? Better Approaches to Well-Intentioned, but Harmful Messages (Case Study 1)

Resource Title:	How do Stereotype Threats Affect Retention? Better Approaches to Well-Intentioned, but Harmful Messages (Case Study 1)
Description/Annotation:	Students often approach education as a search for their inherent talents, rather than development of new abilities, because they believe that intelligence is unchanging. This belief leads students to drop challenging subjects when faced with initial difficulties or stereotype threats. A successful intervention designed to short-circuit this process was studied by Good et al. (2003). Also, fear and anxiety are powerful motivators. When we fear that our actions will confirm negative stereotypes about our “group,” or about ourselves as members of a group, then this “stereotype threat” negatively affects our behavior. According to Aronson and Steele, stereotype threat harms both performance and motivation by reducing our feelings of competence, belonging, and trust in our colleagues.
Author Last Name:	Cphoon
Author First Name:	J. McGrath
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2008
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Stereotype Threat](#)

How Do We Get More Students Interested in Math, Science & Tech Careers? (Infographic)

Resource Title:	How Do We Get More Students Interested in Math, Science & Tech Careers? (Infographic)
Description/Annotation:	This Infographic contains results from two Microsoft-Harris Interactive surveys to understand the shortage of students entering science, technology, engineering and math (STEM)-related fields. One survey asked college students majoring in STEM degrees why they chose to pursue STEM. The other surveyed parents of K-12 students about their perception of STEM education in K-12. Key findings from the surveys are presented in the Infographic.
Author Last Name:	Microsoft
Additional Author:	Parr
:	Ben
Publisher:	Mashable
Publication Date:	2011, Sep
Source:	Mashable
Source Type:	webpage

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

How Do You Introduce Computing in an Engaging Way? Meet Them Where They Are (Case Study 3)

Resource Title:	How Do You Introduce Computing in an Engaging Way? Meet Them Where They Are (Case Study 3)
Description/Annotation:	Experience with computers between boys and girls has equalized, but boys continue to have greater knowledge of computing and programming concepts than do girls. Not so in biology, chemistry, or mathematics, where both boys and girls are encouraged to provide evidence of proficiency when they apply to college. High school study of these subjects familiarizes students with the content and concepts, and gives them confidence. The result is that women's undergraduate completion rates have neared parity

in these disciplines. Because IT study is elective in almost all K-12 schools, developing relevant and interesting assignments that appeal to a broader audience is recommended.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007, May 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How Do You Introduce Computing in an Engaging Way? Scalable Game Design for Middle School (Case Study 6)

Resource Title: How Do You Introduce Computing in an Engaging Way? Scalable Game Design for Middle School (Case Study 6)

Description/Annotation: It's not so easy to build and design a working video game, but a well-crafted learning environment makes it possible and interesting for many students. The middle school computing curriculum in Colorado's Boulder Valley School District (BVSD) uses Scalable Game Design to introduce computer programming in engaging ways and helps students develop IT skills aligned with ISTE'S National Educational Technology Standard of Creativity and Innovation. In the very first lesson, students make their own Frogger-like game to publish on the web. Over the course of a one- to two-month module, students learn more sophisticated topics in order to create increasingly complex games and computational science applications. According to Len Scrogan, Director of Instructional Technology for BVSD, the

results of the BVSD implementation include motivated students, engaged teachers, and excited parents.

Author Last Name: Ashcraft
Author First Name: Catherine
Additional Author: Hamilton
:
Stephanie
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2008
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How Do You Introduce Computing in an Engaging Way? Snap, Create, and Share with Scratch (Case Study 5)

Resource Title: How Do You Introduce Computing in an Engaging Way? Snap, Create, and Share with Scratch (Case Study 5)

Description/Annotation: What makes Scratch so accessible to novices? Scratch is a free “media rich programming environment” in which novice programmers can quickly express their creativity while learning computational thinking. Developed by the Lifelong Kindergarten group at the MIT Media Lab, Scratch is used at both the K-12 and undergraduate levels to reduce the barriers created by a programming language’s abstract syntactic and semantic rules. Instead, students “snap” together several categories of “building blocks” (e.g., statements, loops, variables) to quickly generate animations, games, and art. The building blocks only snap together if they are syntactically appropriate. Students can work both individually and in small teams.

Author Last Name: Barker
Author First Name: Lecia

Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2008
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How Do You Introduce Computing in an Engaging Way? Storytelling (Case Study 1)

Resource Title: How Do You Introduce Computing in an Engaging Way? Storytelling (Case Study 1)

Description/Annotation: Learning to program with Alice is an innovative approach to teaching and learning introductory programming and other computing concepts. Beginning students, including middle and high school students and undergraduates, use the Alice programming environment to populate a virtual world with 3D models of objects (e.g., people, animals, vehicles, and more).

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007, May 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How Do You Introduce Computing in an Engaging Way? Teaching Programming and Language Concepts Using LEGOs® (Case Study 4)

Resource Title:	How Do You Introduce Computing in an Engaging Way? Teaching Programming and Language Concepts Using LEGOs® (Case Study 4)
Description/Annotation:	Teaching Programming and Language Concepts Using LEGOs® is an innovative method for using LEGO® bricks to teach programming and other computing concepts to middle and high school students as well as to undergraduate freshmen in introductory computer science classes. In this assignment, individual LEGO® bricks are used to express a special-purpose programming language, integrating tactile and kinesthetic elements into the learning experience and helping to make abstract concepts more concrete.
Author Last Name:	Barker
Author First Name:	Lecia
Additional Author:	Cphoon
:	J. McGrath
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2005, Nov 1
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How Do You Introduce Computing in an Engaging Way? Unplugged (Case Study 2)

Resource Title:	How Do You Introduce Computing in an Engaging Way? Unplugged (Case Study 2)
Description/Annotation:	Computing is often a mystery: While people may know how to use computers, they rarely know what makes computers work. “CS Unplugged” uncovers the mystery by exposing students to computer science concepts, such as the nature of data or how data is sorted, but without the computer. The activities in “CS Unplugged” help to shatter the image of computing as long, lonely hours in front of an LCD screen by exposing learners to the kind of reasoning needed for inventing the next great ideas in computing.
Author Last Name:	Barker
Author First Name:	Lecia
Additional Author:	Cphoon
:	J. McGrath
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2007, May 1
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

How do you Mentor Faculty Women? Georgia Tech Mentoring Program for Faculty Advancement (Case Study 1)

Resource Title:	How do you Mentor Faculty Women? Georgia Tech Mentoring Program for Faculty Advancement (Case Study 1)
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Description/Annotation: The Georgia Tech Mentoring Program for Faculty Advancement is an integrated institutional program for supporting women's full participation and advancement, and for modeling best practices. Mentoring is practiced at 81% of post-secondary institutions that attempt to improve women's representation in computing. It is a form of professional development that leads to better instructors, increases retention, promotes understanding of academic values, and raises self-confidence in the skills needed for academic success.

Author Last Name: Barker

Author First Name: Lecia

Additional Author: Cohoon

: J. McGrath

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2007-2008

Page Numbers: 2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Mentoring](#)

How Do You Mentor Technical Women at Work? Sun Engineering Enrichment and Development (SEED) Program (Case Study 1)

Resource Title: How Do You Mentor Technical Women at Work? Sun Engineering Enrichment and Development (SEED) Program (Case Study 1)

Description/Annotation: The Sun Engineering Enrichment and Development (SEED) program pairs promising new hires and established employees with executives and senior Engineering staff volunteer mentors. The goal of the program is to make both the protégé and mentor more valuable to Sun and more satisfied with their careers. Mentoring has positive effects for both protégé (mentee) careers and organizations. Mentors also benefit. Protégés experience

advancement and reduced work-family conflicts. Organizations experience improved productivity, recruiting, and employee socialization, acculturation, and retention. Mentors experience personal satisfaction, collegiality and networking, and career enhancement. Because of the advantages mentoring offers, it is one of the most common programs used for increasing women's participation in the IT workforce. Furthermore, more than half of Fortune Magazine's 100 Best Companies to Work for in America had mentoring programs.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2005, Nov 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

How Do You Provide Intentional Role Modeling? Regional Celebrations of Women in Computing - R-CWIC (Case Study 1)

Resource Title: How Do You Provide Intentional Role Modeling? Regional Celebrations of Women in Computing - R-CWIC (Case Study 1)

Description/Annotation: The Indiana Celebration of Women in Computing (InWIC) and the Ohio Celebration of Women in Computing (OCWIC) are small regional conferences modeled after the International Grace Hopper Celebration of Women in Computing. Attendees number about 100, including undergraduate and graduate students, faculty, and industry professionals in computing. Activities involve a keynote speech by a highly successful technical woman, panels about careers in industry and academia, technical paper

presentations, and undergraduate research posters. These conferences are developed and supported by the ACM-W. Like the Grace Hopper Celebration, the R-CWICs intend to provide social support for women in computing, and they feature role modeling and networking.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2006, May 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Mentoring](#)

How do you Recruit or Retain Women through Inclusive Pedagogy? Conversational Classroom (Case Study 1)

Resource Title: How do you Recruit or Retain Women through Inclusive Pedagogy? Conversational Classroom (Case Study 1)

Description/Annotation: This intervention, tested and repeated at the University of Colorado with excellent results, is based on the rationale that students could read their assigned books where the content of the course was clearly laid out. They did not also need for the professor to plan and deliver lectures covering the same material. Instead, they needed access to the professor and each other for asking questions, testing hypotheses, exploring new ideas, etc. In short, professors believed that students needed to engage each other and the professor in intellectual conversation about the material. Therefore, the professors facilitated discussions of the material for each class period. That is, instead of lecturing, professors come to class and ask students if they have questions.

In this way, the professor requires that students take control over the flow of information.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors » Curriculum Educational Factors Educational Factors » Pedagogy & Instruction Educational Factors » Retention

How do you Recruit or Retain Women through Inclusive Pedagogy? Designing for Diversity (Case Study 2)

Resource Title: How do you Recruit or Retain Women through Inclusive Pedagogy? Designing for Diversity (Case Study 2)

Description/Annotation: The undergraduate computer science (CS) program at the University of Virginia took several successful steps to improve the recruitment of women from their introductory course into the CS major. The department instituted multiple entry paths that tracked experienced and inexperienced students into different sections and incorporated structured laboratories into the “lecture” portion of the inexperienced section. The instructor repeatedly and explicitly encouraged students to choose a computer science major, used examples and assignments that appeal to diverse student groups, and deliberately established a class culture that extended beyond the course. These actions, together with smaller class size, markedly increased the yield of CS majors, and particularly, women and minority CS majors.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Pedagogy & Instruction

How Do You Retain Women through Collaborative Learning? Pair Programming (Case Study 1)

Resource Title: How Do You Retain Women through Collaborative Learning? Pair Programming (Case Study 1)

Description/Annotation: At UCSC, pair programming research began in introductory courses and now has been expanded to advanced courses. The research also has included introductory courses at both San Jose State University and Cabrillo College, a two-year state community college. Pair programming assignments have contributed to greater retention of both male and female students at the University of California- Santa Cruz(UCSC). In 2000, Linda Werner and colleagues undertook research to understand the effect of collaborative learning on the retention rate of female students in computer science. Based on the overwhelmingly positive evidence on collaborative learning for student outcomes, a secondary goal of the study has been to measure improvements in student achievement compared to non-paired students.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon

: J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2005, Nov 1
Page Numbers: 2
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

How Do You Retain Women through Collaborative Learning? Peer-Led Team Learning (Case Study 2)

Resource Title: How Do You Retain Women through Collaborative Learning? Peer-Led Team Learning (Case Study 2)

Description/Annotation: Collaborative learning environments require that students work together on formal or informal learning activities. For example, collaborative learning occurs when students work in pairs on programming assignments; when small groups of students discuss possible answers to a professor's question during lecture; and when students work together outside of class to learn new concepts. Collaborative learning is distinct from projects where students "divide and conquer" the work for an assignment because it requires that they actually work through problems together, that they engage in intellectual talk with each other.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
: J. McGrath
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2007, May 1
Page Numbers: 2
Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

How do you Support Completion of Graduate Degrees and Engender Commitment to a Research Career? Advisor as Steward of the Discipline (Case Study 1)

Resource Title: How do you Support Completion of Graduate Degrees and Engender Commitment to a Research Career? Advisor as Steward of the Discipline (Case Study 1)

Description/Annotation: Research shows that a relationship with an advisor is critical for graduate completion. A negative relationship can lead to attrition from the program or choice of a non-research career. Two female computer science PhD students at a large, public research university talk about their relationships with their advisors.

Author Last Name: Barker

Author First Name: Lecia

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2007, Nov 1

Page Numbers: 2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

How does Combating Overt Sexism Affect Women's Retention? Assessments for Identifying Overt Sexism (Case Study 1)

Resource Title: How does Combating Overt Sexism Affect Women's Retention? Assessments for Identifying Overt Sexism (Case Study 1)

Description/Annotation: One important step toward minimizing the occurrence of overt sexist behavior is identifying the extent to which it occurs in an organization, because it is often hidden. To improve awareness and track progress, both researchers and lawyers recommend conducting periodic surveys, focus groups, and audits of any complaints filed. The information gained from surveys can inform efforts to improve conditions and measure the effects of remedial actions.

Author Last Name: Cohoon

Author First Name: J. McGrath

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2009

Page Numbers: 2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Retention](#) [Cultural Influences](#) » [Stereotype Threat](#)

How Does Engaging Curriculum Attract Students to Computing? Harvey Mudd College's Successful Systemic Approach (Case Study 2)

Resource Title: How Does Engaging Curriculum Attract Students to Computing? Harvey Mudd College's Successful Systemic Approach (Case Study 2)

Description/Annotation: Making curricula more relevant to students, introducing collaborative learning into the classroom, and tailoring courses to different student experience levels benefit female as well as male students. The successful pre- and early-computing major redesign carried out at Harvey Mudd College includes an introductory course that separates students according to prior computing experience, takes a breadth first approach, and includes a faculty-led lab. Along with early student engagement in research,

participation in the Grace Hopper Celebration of Women in Computing, and the presence of a prominent high-level champion for women in computing, student performance has held steady while skyrocketing women's representation from consistently less than 20% all the way to 50% of the incoming computer science majors.

Author Last Name: McGrath Cohoon
Author First Name: J.
Additional Author: Barker
:
Lecia
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2010, Mar 5
Page Numbers: 2
Source: NCWIT
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

How Does Engaging Curriculum Attract Students to Computing? Media Computation at Georgia Tech (Case Study 1)

Resource Title: How Does Engaging Curriculum Attract Students to Computing? Media Computation at Georgia Tech (Case Study 1)

Description/Annotation: The Media Computation approach to teaching introductory computing developed at Georgia Tech is being effectively implemented now at over a dozen institutions. The two-course sequence aims to make computing more attractive to a wider range of students, especially women, by focusing on computing in an interesting context that is relevant to students' everyday lives. The purpose in developing the course was to solve problems that, in studies, were shown to drive away students from computer science.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
Publisher: National Center for Women and Information Technology (NCWIT)
Publication Date: 2005, Nov 1
Source: NCWIT
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

How Does Identity Shape the Experiences of Women of Color Engineering Students?

Resource Title: How Does Identity Shape the Experiences of Women of Color Engineering Students?

Description/Annotation: This study seeks to understand the experiences of women of color engineering students who persist and identify some of the dilemmas they face. Evidence emerged that students formulate multiple identities to help them persist in their engineering programs. Authors assess the role that identity plays in the experiences of STEM (science, technology, engineering, and mathematics) women of color. This paper applies a multiple identities framework and presents students' experiences through the lenses of three emergent identities: academic, social, and intellectual.

Author Last Name: Tate
Author First Name: Erika D.
Additional Author: Linn
:
Marcia C.
Publication Date: 2005, Dec
Page Numbers: 483-493
Publication Title: Journal of Science Education and Technology

Volume: 14
Issue: 5-6
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

How Interest in Science Negatively Influences Perceptions of Women

Resource Title: How Interest in Science Negatively Influences Perceptions of Women

Description/Annotation: We examined whether women who pursue scientific training are viewed negatively by college students. Results indicated that both major and commitment level influenced perceptions of the speaker. Commitment to the major increased judgments of future career fulfillment, intellectual competence, school achievement, and assertiveness.

Author Last Name: Brownlow

Author First Name: Sheila

Additional Author: Smith

: Tonya J.

Additional Author: Ellia

: Belinda R.

Publication Date: 2002, Jun

Page Numbers: 135-144

Publication Title: Journal of Science Education and Technology

Volume: 11

Issue: 2

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

How Leaders Create and Use Networks

Resource Title:	How Leaders Create and Use Networks
Description/Annotation:	Article discusses the challenges and discomfort of emerging leaders in leveraging networking. Offers strategy for leaders' development plans to utilize operational, personal, and strategic networking techniques.
Author Last Name:	Ibarra
Author First Name:	Herminia
Additional Author:	Hunter
:	Mark
Publisher:	Harvard Business School Publishing Corporation
Publisher Location:	Boston, MA
Publication Date:	2007, Jan 1
Page Numbers:	40-47
Publication Title:	Harvard Business Review
Volume:	85
Issue:	1
Source:	Harvard University
Source Type:	Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

How Learning Works: Seven Research-Based Principles for Smart Teaching

Resource Title: How Learning Works: Seven Research-Based Principles for Smart Teaching

Description/Annotation: Authors have drawn on research from a breadth of perspectives (cognitive, developmental, and social psychology; educational research; anthropology; demographics; organizational behavior) to identify a set of key principles underlying learning, from how effective organization enhances retrieval and use of information to what impacts motivation. Integrating theory with real-classroom examples in practice, this book helps faculty to apply cognitive science advances to improve their own teaching.

Author Last Name: Ambrose

Author First Name: Susan A.

Additional Author: Bridges

: Michael W.

Additional Author: DiPietro

: Michele

Additional Author: Lovett

: Marsha C.

Additional Author: Norman

: Marie K

Publisher: John Wiley & Sons

Publication Date: 2010 Apr 16

Source Type: Available for purchase

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type
Categories: [Book](#) Topical Categories: [Educational Factors](#) » [Pedagogy & Instruction](#)

How study aids influence learning and motivation for girls in technology education

Resource Title: How study aids influence learning and motivation for girls in technology education

Description/Annotation: This article is centered on artefacts used to mediate the education of technology. The teacher choice of aids is made in mainly for the pedagogic interest which the object gives.

Author Last Name: Chatoney
Author First Name: M.
Additional Author: Andreucci
:
Publication Date: 2009, Nov
Page Numbers: 393-402
Publication Title: International Journal of Technology and Design Education
Volume: 19
Issue: 4
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

How the Presence of Women Affects the Performance of Design Teams in a Predominately Male Environment

Resource Title: How the Presence of Women Affects the Performance of Design Teams in a Predominately Male Environment

Description/Annotation: This study presents results obtained for nearly 400 students working on 99 teams with a female minority of 14.1% working on a semester-long, sophomore, design projects. The team performances are compared in four categories: artifact testing, design critiques based on initial specifications, communications, and overall project grade.

Author Last Name: Bannerot
Author First Name: Richard
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences Individual Beliefs and Behaviors](#) » [Family & Peers Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors](#)

How to Improve Enrollment of Women in Engineering: Lessons Learnt from the Developing World

Resource Title: How to Improve Enrollment of Women in Engineering: Lessons Learnt from the Developing World

Description/Annotation: This research focuses on engineering enrollment in Kerala in India which has seen higher enrollment of women in engineering for a decade or more. This study examines the cultural, political and social aspects that have made engineering enrollment in Kerala reach levels that are rarely seen in the United States or the Western world, and assesses how the social, cultural and political aspects of the region can create the preconditions and facilitating conditions necessary for higher enrollment of women in engineering. The study will also focus on lessons learnt from this region of the world, which can be adopted in other countries to improve the enrollment of women in engineering.

Author Last Name: Sukumaran

Author First Name: Beena

Additional Author: Hartman

: Harriet

Additional Author: Johnson

: Dona

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Educational Factors](#) » [Retention](#)

How we measure success makes a difference: Eight-semester persistence and graduation rates for female and male engineering students

Resource Title: How we measure success makes a difference: Eight-semester persistence and graduation rates for female and male engineering students

Description/Annotation: To examine the relationship between measures of persistence and graduation, analyses were conducted using MIDFIELD (the Multiple-Institution Database for Investigating Engineering Longitudinal Development). The database includes student records from 75,686 first-time-in-college students matriculating in engineering at one of nine public universities in the southeastern United States. Researchers found gender and institutional differences in the six-year graduation rates of students who persist to the eighth semester. An important result of this work is demonstrating how studying different outcomes can tell different stories about the same students: studying eight-semester persistence for aggregate populations can provide a reasonable surrogate for graduation, but may paint an overly optimistic picture at some institutions, and the study of both outcomes can provide new and valuable information about the student experience. Funded by NSF GSE under award #0734062 & #0734085.

Author Last Name: Ohland
Author First Name: Matthew
Additional Author: Camacho
:
Michelle
Additional Author: Layton
:
Richard
Additional Author: Long
:
Russell
Additional Author: Lord
:
Susan
Publisher: Wasburn
Publisher Location: Mara
Publication Date: 2009

Publication Title: Proceedings of the 2009 ASEE Annual Conference
Source: Purdue University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Educational Factors](#) » [Retention](#)

How Women Perform on Individual Design Projects Compared to Men

Resource Title: How Women Perform on Individual Design Projects Compared to Men

Description/Annotation: The relative performances of males and females are analyzed for two individual projects in a sophomore engineering design class. The first project could be described as creative design for both groups and required the building, testing and describing of devices to tell time using the sun. The females outperformed the males by a considerable margin in all aspects of the project. In the second project, requiring the explanation and demonstration of devices largely unfamiliar to the females, the females faltered only slightly, relative to the males. However, the females overcame their initial deficiencies in experience and produced overall performances comparable to those of the males. These results indicate that these females are as well, if not better, suited for open ended, problem solving experiences than their males counterparts.

Author Last Name: Bannerot
Author First Name: Richard
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors Educational Factors](#) » [Pedagogy & Instruction](#)

Hypatia A Residential Program for Freshman Women in Engineering

Resource Title:	Hypatia A Residential Program for Freshman Women in Engineering
Description/Annotation:	This paper discusses a residentially based learning community called Hypatia at Virginia Tech. Hypatia allows female freshmen engineering students to form a living and learning environment that promotes academic success. This paper details the characteristics (both academic and personal life experiences) that describes the typical Hypatia participant. The paper also discusses the impact of the Hypatia Seminar on student perceptions and development.
Author Last Name:	Watford
Author First Name:	Bevlee A.
Additional Author:	Artis
:	Sharnnia
Publication Date:	2004
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors Educational Factors](#) » [Informal Academic Preparation](#)

Hypatia: A Living and Learning Community for Freshman and Sophomore Women in Engineering

Resource Title: Hypatia: A Living and Learning Community for Freshman and Sophomore Women in Engineering

Description/Annotation: The Hypatia program was created in order to increase the recruitment and retention of female engineering students in the College of Engineering at Virginia Tech. This paper discusses how the Hypatia programs contribute to the academic and professional development of participants, and addresses the recruitment and retention of these Virginia Tech women engineering students.

Author Last Name: Martin

Author First Name: Amanda

Additional Author: Watford

: Bevelee

Additional Author: Edmister

: Whitney

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

I Am A Catalyst

Resource Title: I Am A Catalyst

Description/Annotation: This website allows users to view and post videos of "catalysts", role models who stand up for women and speak up for equal opportunities in the workplace. The website offers free videos of catalysts sharing their stories, as well as a link to upload new videos.

Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Source: Catalyst
Source Type: Website

Resource Type Categories: [Website/Portal](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

I Just Need Someone Who Knows the Ropes: Mentoring and Female Faculty in Science and Engineering

Resource Title: I Just Need Someone Who Knows the Ropes: Mentoring and Female Faculty in Science and Engineering

Description/Annotation: This article reports findings from a small interview study of female faculty in science and engineering, reporting their perceptions of their mentoring experiences and the role of gender in shaping those perceptions. Three distinct types of mentoring emerged from the study: global mentoring, formal targeted mentoring, and informal targeted mentoring. Results indicated that the mentoring relationship is affected by the use of traditional gender ideology that supports the belief that being a woman and an engineer/scientist is not compatible.

Author Last Name: Dunham
Author First Name: Charlotte Chorn
Additional Author: Weathers
:
Additional Author: Laura Hartin
:
Additional Author: Hoo
:
Additional Author: Karlene
:
Additional Author: Heintz
:
Additional Author: Caryl
Publisher: Begell House, Inc
Publisher Location: Redding, CT

Publication Date: 2012
Page Numbers: 79-96
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 18
Issue: 1
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

I still wanna be an engineer! Women, education and the engineering profession

Resource Title: I still wanna be an engineer! Women, education and the engineering profession

Description/Annotation: A qualitative interview-based study of Australian women engineers across the range of engineering disciplines showed the relevance of success in math and science at school to their enrolling in engineering at university. However, for a significant number of the women the positive self-image connected with school success was not maintained by their workplace experience. Using a mixed methods approach, further investigations of the attitudes and experiences of working engineers at three large firms suggest that engineering workplaces continue to be uneasy environments for professional women.

Author Last Name: Gill
Author First Name: Judith
Additional Author: Sharp
: Rhonda
Additional Author: Mills
: Julie
Additional Author: Franzway
: Suzanne

Publication Date: 2008, Aug
Page Numbers: 391-402
Publication Title: European Journal of Engineering Education
Volume: 33
Issue: 4
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

IBM Diversity 3.0

Resource Title: IBM Diversity 3.0

Description/Annotation: IBM's goal is to be the premier global employer of women with a special commitment to working mothers. Their focus is on increasing recruiting efforts among women; nurturing their careers once they're hired; and multiplying the number of women in our executive ranks.

Web site Link: [Link to Resource](#)

Logo:

More: "In 1935, the founder of IBM, Thomas J. Watson Sr., launched a program to recruit college-educated women, and made what in those days was a startling statement: "Men and women will do the same kind of work for equal pay. They will have the same treatment, the same responsibilities and the same opportunity for advancement." And we've been building on creating a culture in which women feel welcomed and valued ever since.

Today, IBM's goal is to be the premier global employer of women with a special commitment to working mothers. We focus on increasing our recruiting efforts among women; nurturing their careers once they're hired; and multiplying the number of women in our executive ranks.

Highlights of our innovative global strategy for the advancement of women, which includes a unique focus on women in technology and multicultural women, are:

- Employee network groups dedicated to women around the world.
- Women's leadership programs and symposiums to develop high potential women.
- Mentoring programs to encourage women in their pursuit of degrees in engineering and science.
- Giving employees access to childcare centers and eldercare resources and referrals around the world.
- Offering a number of flexible options in terms of work schedules that are open to women and men alike.

Women represent about 30 percent of the global IBM workforce. IBM has seen substantial growth in the number of senior women executives globally - from 185 in 1997 to more than 1,000 today. Sixty-four percent of IBM's women executives are working mothers.

As a reflection of our efforts, we are proud of our continuing recognition as one of Working Mother magazine's Top Companies for Working Mothers and Best Companies for Women of Color, as well as one of the National Association of Female Executives Top Companies for Executive Women.

We believe our commitment and leadership are making a difference for women in business -- and not just in our own business. For example, we're working in partnership with the Egyptian National Council for Women to help women develop skills vital to their success in the workplace. And we've launched a nonprofit organization called the Japan Women Innovative Network which consists of more than 80 Japanese companies and organizations devoted to enhancing the presence of women in managerial positions in Japan."

Site Access Details:	This site is publicly accessible.
Partners and Funding:	This is an IBM corporate program.
Contact Name:	Lisa Gable
Contact E-mail:	lg@us.ibm.com
Last Update Date:	May 21, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Industry Career Factors » Leadership & Management

ICT employment, over-education and gender in Spain. Do information and communication technologies improve the female labour situation? New Technology, Work and Employment ICT employment, over-education and gender in Spain

Resource Title: ICT employment, over-education and gender in Spain. Do information and communication technologies improve the female labour situation? New Technology, Work and Employment ICT employment, over-education and gender in Spain

Description/Annotation: This paper investigates the extent to which ICT-related employment is improving the labour situation of women in Spain by reducing female over-education. Outcomes indicate no reduction in female over-education, nor does a woman's marital status produce any significant differences. However, the best result is observed for ICT occupations linked to higher job quality characteristics.

Author Last Name: Iglesias-Fernandez

Author First Name: Carlos

Additional Author: Llorente-Heras

: Raquel

Additional Author: Duenas-Fernandez

: Diego

Publication Date: 2010, Nov

Page Numbers: 282-252

Publication Title: New Technology, Work and Employment

Volume: 25

Issue: 3

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

ICT Inclusion and Gender: Tensions in Narratives of Network Engineer Training

Resource Title:	ICT Inclusion and Gender: Tensions in Narratives of Network Engineer Training
Description/Annotation:	This 19 page article explores the efforts of increasing information and communications technology (ICT) training opportunities for women in the United Kingdom. Findings suggest that, without changes in pedagogic practice, the training can be generally ineffective due to assumptions that women, once they receive training, are expected to instigate changes, and often tend to ignore or overlook discrimination in an attempt to become part of the community of practice. Policy issues are also discussed.
Author Last Name:	Gillard
Author First Name:	Hazel
Additional Author:	Mitev
:	Nathalie
Additional Author:	Scott
:	Susan
Publisher:	Taylor & Francis
Publication Date:	2007, Dec
Page Numbers:	19-37
Publication Title:	The Information Society
Volume:	23
Issue:	1
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical](#) Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Identifying Determinants of Academic Self Confidence among Science, Math, Engineering and Technology

Resource Title:	Identifying Determinants of Academic Self Confidence among Science, Math, Engineering and Technology
Description/Annotation:	Article attempting to identify reasons as to why there are gender gaps in STEM student's levels of self confidence in their academic abilities.
Author Last Name:	Huang
Author First Name:	Penelope
Additional Author:	Brainard
:	Suzanne
Publisher:	Begell House
Publisher Location:	Redding, CT
Publication Date:	2001
Page Numbers:	315-337
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	7
Issue:	4
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Identifying Special Advising Needs of Women Engineering Students.

Resource Title:	Identifying Special Advising Needs of Women Engineering Students.
Description/Annotation:	8-page qualitative study about impact of inadequate advising on female engineering student success. Recommendations for advising programs to increase retention. Would be useful for Engineering College student advising programs.

Author Last Name: Anderson
Author First Name: Vivian
Publication Date: 1995, Jul-Aug
Page Numbers: 322-329
Publication Title: Journal of College Student Development
Volume: 36
Issue: 4
Source: OEC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#) [Educational Factors](#) » [Retention](#)

IEEE's Women in Engineering (WIE)

Resource Title: IEEE's Women in Engineering (WIE)

Description/Annotation: This is the IEEE's group which supports their female members in the various fields of interest to IEEE. IEEE - Fostering technological innovation and excellence for the benefit of humanity.

Web site Link: [Link to Resource](#)

Logo:

More: The Awards program honors achievements in education, industry, research and service. Each award has a unique mission and criteria, and offers the opportunity to honor distinguished colleagues, inspiring teachers and corporate leaders.

IEEE WIE provides members with the opportunity to network at a local level through WIE affinity groups.

Resources: Publicly accessible resources include:

- Monthly Newsletter
- Preview of latest issue of IEEE Women in Engineering Magazine
- Links to related organizations

- Links to statistics (some only accessible by members)
- Links to relevant publications from other organizations
- Global WIE calendar

Member resources include:

- IEEE Women in Engineering Magazine
- Scholarships, Internships, Grants, and Awards

Site Access Details: Some aspects of the site are publicly accessible, but site visitors must be IEEE WIE members to access members-only areas and resources.

Partners and Funding: IEEE is a membership-based organization. Only IEEE members can join IEEE WIE.

Contact E-mail: women@ieee.org

Last Update Date: June 18, 2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

If You Build It, They Will Come (and Stay): Recruiting and Retaining Women and Underrepresented Minority Students

Resource Title: If You Build It, They Will Come (and Stay): Recruiting and Retaining Women and Underrepresented Minority Students

Description/Annotation: This paper presents findings from two companion studies that examined recruitment strategies to attract and retain women and underrepresented minority students and to provide support services that aid in their retention in engineering programs. The paper also examined if engineering seniors' plans to work in or outside of an engineering profession differed by gender and race/ethnicity. Funded by NSF CCS 0550608 & NSF CCLI 0618712.

Author Last Name: Ro

Author First Name: Hyun Kyoung

Additional Author: Marra

: Rose M.

Additional Author: Walser

: Ardie D.

Additional Author: Terenzini
:
Additional Author: Trautvetter
:
Publication Date: 2011
Publication Title: 2011 ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Topical Categories: [Career Factors](#) [Educational Factors](#) [Publications by Funder » NSF-DUE-CCLI Publications by Funder » NSF-EEC-CCSS Publications by Funder](#) [Educational Factors » Retention](#) [Career Factors » Retention](#)

Image Problems Deplete the Number of Women in Academic Applicant Pools

Resource Title: Image Problems Deplete the Number of Women in Academic Applicant Pools

Description/Annotation: This article reports the results of a career goals survey of math and science doctoral students at the University of California, Davis. Fewer women than men began their doctoral programs seeking academic research careers. Of those who initially favored academic research, twice as many women as men downgraded these ambitions during graduate school. Women were more likely to feel geographically constrained by family ties and to express concern about balancing work and family, long work hours, and tenure clock inflexibility.

Author Last Name: Sears

Author First Name: Anna L.W.

Publication Date: 2003

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs](#)
and Behaviors [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Impact Evaluation of the U.S. Department of Education's Student Mentoring Program

Resource Title: Impact Evaluation of the U.S. Department of Education's Student Mentoring Program

Description/Annotation: This report from the U.S. Department of Education, Institute of Education Sciences (IES) summarizes the findings from a national evaluation of mentoring programs funded under the U.S. Thirty-two purposively selected School Mentoring Programs and 2,573 students took part in the evaluation, which estimated the impact of the programs over one school year on a range of student outcomes. The evaluation also describes the characteristics of the program and the mentors, and provides information about program delivery.

Author Last Name: Abt Associates

Additional Author: Bernstein (Project Director)

: Lawrence

Additional Author: Rappaport

: Catherine Dun

Additional Author: Olsho

: Lauren

Additional Author: Hunt (et. al.)

: Dana

Publisher: U.S. Dept. of Education, IES

Publication Date: 2009, Mar

Page Numbers: 1-89

Issue: NCEE 2009-4047

Source: IES

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Impact of a Summer Mathematics and Technology Program for Middle School Girls

Resource Title: Impact of a Summer Mathematics and Technology Program for Middle School Girls

Description/Annotation: This article discusses the impact of a 5-day residential summer mathematics and technology camp on middle school girls' attitudes and perceived abilities in mathematics and technology. The study sample included 121 Northern Nevada girls who participated in the program during its first 3 years of operation and 25 parents of these girls. Data-gathering measures—the Modified Fennema-Sherman Mathematics Attitude Scale, personal interviews, and participant and parent questionnaires—show that the camp had a strong positive impact on program participants. Key benefits of the program, as well as elements critical to the program's success, are categorized and discussed.

Author Last Name: Wiest

Author First Name: Lynda R.

Publication Date: 2004

Page Numbers: 317-339

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Impact of science-technology learning environment characteristics on learning outcomes: pupils' perceptions and gender differences

Resource Title:	Impact of science-technology learning environment characteristics on learning outcomes: pupils' perceptions and gender differences
Description/Annotation:	The science-technology curriculum for junior-high school in Israel suggests that teachers integrate science and technology. In addition, this curriculum calls for infusing thinking competencies into the learning subjects and for implementing alternatives in assessment methods in the classes. This research included three stages: field research, pilot research and expanded research.
Author Last Name:	Doppelt
Author First Name:	Yaron
Publication Date:	2004, Sep
Page Numbers:	271-293
Publication Title:	Learning Environments Research
Volume:	7
Issue:	3
Source:	SpringerLink
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Implementation of a Group Mentoring Program for Undergraduate Women in Engineering

Resource Title:	Implementation of a Group Mentoring Program for Undergraduate Women in Engineering
Description/Annotation:	This 12-page paper from the 2012 WEPAN National Conference discusses the evolution of Purdue University's undergraduate Group Mentoring Program, which provides its participants with personal support, affirmation, and effective strategies to

successfully complete their undergraduate engineering education. Program goals, organization, assessment, and examples of successful group activities designed to meet program objectives are presented. The full conference paper is available in PDF format.

Author Last Name: Groh
Author First Name: Jennifer L.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-12
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Implementing an Inclusive Curriculum for Women in Engineering Education

Resource Title: Implementing an Inclusive Curriculum for Women in Engineering Education

Description/Annotation: The writers of this paper have collaborated over a number of years at the University of South Australia to make engineering education more inclusive. This process commenced with an institutionwide project to develop inclusive curricula by improving the understanding and practice of faculty, and developing guidelines to assist them in restructuring their courses to become more inclusive. In the engineering departments, the process was further developed through staff workshops to assist faculty with the redevelopment of course curricula using the university guidelines, as well as the collection and dissemination of material and examples appropriate for engineering programs. This paper describes some of these methods in more detail, as well as the obstacles the writers have encountered and the devices they have used to overcome objections and impediments. Specific examples from civil engineering are included.

Author Last Name: Ayre

Author First Name: M.
Additional Author: Mills
:
Publication Date: 2003
Page Numbers: 203-210
Publication Title: Journal of Professional Issues in Engineering Education and Practice
Volume: 129
Source: CIRT
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Implementing Inquiry Kit Curriculum: Obstacles, Adaptations, and Practical Knowledge Development in Two Middle School Science Teachers

Resource Title: Implementing Inquiry Kit Curriculum: Obstacles, Adaptations, and Practical Knowledge Development in Two Middle School Science Teachers

Description/Annotation: Two elementary certified middle school science teachers are studied for changes in practical knowledge supporting the implementation of kit-based inquiry as part of a school wide reform effort. Results affirm the idea that reform is personal and extremely complex. Teachers need individual support as they move forward in making changes toward a more inquiry-based platform.

Author Last Name: Jones
Author First Name: Mark T.
Additional Author: Eick
:
Charles J.
Publisher: Wiley Periodicals, Inc.
Publisher Location: Hoboken, NJ

Publication Date: 2007, Jan
Page Numbers: 492-513
Publication Title: Science Education
Volume: 91
Issue: 3
Source: Wiley InterScience
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Implicit and Explicit Attitudes Toward Female Authority

Resource Title: Implicit and Explicit Attitudes Toward Female Authority

Description/Annotation: A 14-page report on a study to assess explicit and implicit attitudes toward female authority figures. Participants were undergraduate students; the study assessed gender role, gender authority, and gender trait beliefs and stereotypes in the students, both explicitly and implicitly. Ultimately, implicit attitudes toward female authority figures were similar for both men and women, with negative implicit attitudes in both cases; however, women's explicit attitudes toward women in authority were less negative. The full results of the study demonstrated support for the gender authority hypothesis, which is the belief that men have more authority than women.

Author Last Name: Rudman

Author First Name: Laurie A.

Additional Author: Killanski

: Stephen E.

Publisher: SAGE Publications

Publisher Location: Thousand Oaks, CA

Publication Date: 2000

Page Numbers: 1315-1328

Publication Title: Personality and Social Psychology Bulletin

Volume: 26
Source: Sage
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Cultural Influences Career Factors](#) » [Leadership & Management Cultural Influences](#) » [Stereotype Threat](#)

Improve Visibility, Impact and Stability of Women in Engineering and Diversity Initiatives During Fiscally Stressful Times

Resource Title: Improve Visibility, Impact and Stability of Women in Engineering and Diversity Initiatives During Fiscally Stressful Times

Description/Annotation: All organizations are feeling the stress of budget cuts and the pressure for more accountability and results. Panelists will discuss strategies that can be used to increase the visibility and impact of efforts to increase recruitment, retention and outreach by leveraging resources, aligning goals with a broader purpose, and developing partnerships within and outside of your institution. Participation in ENGAGE (www.EngageEngineering.org), funded by the National Science Foundation, will be highlighted as one strategy.

Author Last Name: Metz

Author First Name: Susan

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors Career Factors](#) » [Organizational Culture Career Factors](#) » [Retention](#)

Improving Adolescents' Standardized Test Performance: An Intervention to Reduce the Effects of Stereotype Threat

Resource Title:	Improving Adolescents' Standardized Test Performance: An Intervention to Reduce the Effects of Stereotype Threat
Description/Annotation:	This 18 page article describes results of an experiment in which a population of largely female and minority seventh grade students were administered tests in mathematics and reading with a group of college students as mentors encouraging them to view intelligence as malleable and/or to attribute educational difficulties to the novelty of the academic setting. These students significantly outperformed students in a control group, demonstrating that efforts to overcome the "stereotype threat" may lead to improved scores for female and minority students. Specifically interesting to researchers in differences between sexes was one result showing that girls who received coaching on the expandability of intelligence performed equally to boys on the standardized exam, where girls who did not were outperformed by boys.
Author Last Name:	Good
Author First Name:	Catherine
Additional Author:	Aronson
:	Joshua
Additional Author:	Inzlicht
:	Michael
Publication Date:	2003, Dec
Page Numbers:	645-662
Publication Title:	Journal of Applied Developmental Psychology
Volume:	24
Issue:	6
Source:	ScienceDirect
Link Type:	Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Improving Elementary School Girls' Attitudes, Perceptions, and Achievement in Science and Mathematics: Hindsight and New Visions of the Sisters in Science Program as an Equity Reform Model

Resource Title: Improving Elementary School Girls' Attitudes, Perceptions, and Achievement in Science and Mathematics: Hindsight and New Visions of the Sisters in Science Program as an Equity Reform Model

Description/Annotation: This article reports on the student outcomes of the 3-year Sisters in Science program in its efforts to increase the achievement, attitudes, and perceptions of fourth and fifth grade girls in science and mathematics. Through a multifaceted, 2-year intervention cycle, students were exposed to gender-sensitive, constructivist, integrated mathematics and science instruction in school, after school, and during the summer months. Two cohort groups cycled through the program during its 3 years of implementation. The participants showed increases in achievement, perceptions, and attitudes. Limitations of the program design and implementation are noted. Implications for future science and mathematics reform are discussed.

Author Last Name: Richardson

Author First Name: Greer M.

Additional Author: Hammrich

: Penny L.

Additional Author: Livingston

: Beverly D.

Publication Date: 2003

Volume: 9

Issue: 3&4

Source: Begell House

Link Type: Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

Improving Problem Solving with Simple Interventions

Resource Title: Improving Problem Solving with Simple Interventions

Description/Annotation: Although problem solving is a major goal for most science educators, many still rely on the demonstration method as an approach to teach it. This remains the case even though most are not happy with the results. Using a web-based problem delivery system to track students' performance, we have investigated the effects of collaborative learning, and concept mapping on student problem solving ability. We find that student ability in general can be improved by about 10% after a group problem solving intervention. Furthermore we find differences in improvement depending upon the students' level of logical thinking and gender. Funded by NSF GSE under award #0429156.

Author Last Name: Cooper

Author First Name: Melanie M.

Additional Author: Cox
:
Charles T.

Additional Author: Nammouz
:
Minory

Additional Author: Stevens
:
Ronald H.

Publication Date: 2007, Oct.

Page Numbers: 64-68

Publication Title: New Directions in the Teaching of Physical Science

Volume: 3

Source: The Higher Education Academy

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Improving the 3-D Spatial Visualization Skills of Women Engineering Students

Resource Title:	Improving the 3-D Spatial Visualization Skills of Women Engineering Students
Description/Annotation:	In the fall of 1993, a course was developed at Michigan Technological University (MTU) to aid students in overcoming deficiencies in spatial visualization ability. This paper describes this course and presents some results from this study.
Author Last Name:	Sorby
Author First Name:	Sheryl A.
Additional Author:	Baartmans
:	Beverly J.
Publication Date:	1996
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Improving the Academic Environment for Women Engineering Students Through Faculty Workshops

Resource Title:	Improving the Academic Environment for Women Engineering Students Through Faculty Workshops
Description/Annotation:	This paper examines the low numbers of women represented in engineering curricula and some of the factors that help to explain their under-representation. Authors examine some of these factors including: isolation, not seeing the relevance of highly theoretical basic courses, negative experiences in laboratory courses, classroom climate and lack of role models. An outline is presented for two engineering faculty workshops, conducted at the University of California-Davis, designed to help faculty members understand these issues and develop new strategies for overcoming factors that discourage their female students. Evaluation results are presented

along with a series of recommendations for planning, implementing and evaluating these types of workshops.

Author Last Name: Henes
Author First Name: Robby
Additional Author: Bland
: Mary Margaret
Additional Author: Darby
: Jeannie
Additional Author: McDonald
: Karen
Publication Date: 1995, Jan
Page Numbers: 59-67
Publication Title: Journal of Engineering Education
Volume: 84
Issue: 1
Source: ASEE
Database Name: Posted with permission

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Faculty Student Interaction](#)

Improving the Graduate School Experience for Women in Mathematics: The EDGE Program

Resource Title: Improving the Graduate School Experience for Women in Mathematics: The EDGE Program

Description/Annotation: This paper examines the effectiveness of the EDGE (Enhancing Diversity in Graduate Education) program initiated at Spelman College and Bryn Mawr College. The program aims to help female mathematics students, especially those of color, make an easy transition from an undergraduate math program to a graduate math program. The program creates a network for its participants with peers, mentors and faculty and aims to diversify the mathematics program.

Author Last Name: Bozeman

Author First Name: S.T.
Additional Author: Hughes
:
R.J.
Publication Date: 2004
Page Numbers: 243-254
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Source: CIRTL
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Improving Women's and Girls' Attitudes Toward Science with Instructional Strategies

Resource Title: Improving Women's and Girls' Attitudes Toward Science with Instructional Strategies

Description/Annotation: This paper explores research on women's and girls' reasons for choosing science, theories of attitudes and attitude change, instructional design for attitude change, and instructional design for women. Those bodies of literature are examined to distill the critical components for designing instruction to improve women's and girls' attitudes toward science. Three major themes are identified in the literature examined: the value of emotion, the positive effects of role models, and the need to address attitude functions. From conclusions based on the three themes, 15 specific instructional guidelines are presented and illustrated with an example of how these guidelines were incorporated in a Web-based science lesson.

Author Last Name: Newbill
Author First Name: Phyllis Leary
Additional Author: Cennamo
:
Katherine Sears

Publication Date: 2008
Page Numbers: 49-65
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 1
Source: Begell House
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

In Pursuit of Excellence and Gender Equality: Engineering Education at Kuwait University

Resource Title: In Pursuit of Excellence and Gender Equality: Engineering Education at Kuwait University

Description/Annotation: This paper describes the multi-dimensional effort in the pursuit of excellence in engineering education at Kuwait University. The engineering program curricula have continuously been modified to provide engineering students with an intellectual foundation that is broad, well-rounded, and multi-disciplinary. The pursuit of excellence in engineering education has earned the College ABET's "substantial equivalency" rating for six of its programs. Women constitute more than forty percent of the incoming engineering student body in recent years. Following a comprehensive questionnaire survey of the alumni of the College of Engineering, results indicated that nearly all of engineering women alumnae are presently employed and a majority feel that the education and training, which they received from the engineering programs, were excellent and responsive to the needs of their jobs. A clear majority of women alumnae also feel equal (or even superior), to their male counterparts with regard to job-related factors. The feeling of equality is positively and significantly correlated with GPA, field of specialization, and years of experience.

Author Last Name: Al-Sanad

Author First Name: Hasan A.

Additional Author: Koushki
:
Parviz A.
Publication Date: 2001, April
Page Numbers: 253-259
Publication Title: Journal of Engineering Education
Volume: 90
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) »
[Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

In Reading, Dick Lags Far Behind Jane

Resource Title: In Reading, Dick Lags Far Behind Jane
Description/Annotation: This article reports a research study conducted in a number of private schools in Philadelphia to investigate the gender gap in reading achievement that places boys at a disadvantage in educational and career spheres. The investigation arose because of the nationwide gap in reading and writing achievement between boys and girls, with boys reading later, reading fewer books, and valuing reading less.
Author Last Name: Graham
Author First Name: Kristen A.
Additional Author: Hardy
:
Dan
Publisher: Philadelphia Inquirer
Publisher Location: Philadelphia, PA
Publication Date: 2006, April 2
Publication Title: Philadelphia Inquirer
Source: Philly.com

Source Type: Full Text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical
Categories: Individual Beliefs and Behaviors » Cognition Educational Factors Educational Factors »
Formal Academic Preparation Individual Beliefs and Behaviors

Inclusive Spaces for Competence and Engagement: Investigating Identity and Access in the Classroom

Resource Title: Inclusive Spaces for Competence and Engagement: Investigating Identity and Access in the Classroom

Description/Annotation: The analysis reported in this paper investigates ways in which aspects of the classroom can support students' access to identities and competence in the context of statistical data analysis. This retrospective analysis explores how and in what ways norms of participation, the role of the teacher, instructional activities, and classroom discourse afford students opportunities to gain access to positive orientations and an understanding of significant statistical ideas. The analysis examines students' narrative identities in relation to a design experiment on statistical data analysis. This case of statistics illustrates how a focus on identity can inform efforts to increase the participation of students from underrepresented groups in science and mathematics.

Author Last Name: Hodge

Author First Name: Lynn Liao

Additional Author: Cobb

: Paul

Publication Date: 2008, May

Page Numbers: 339-360

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Educational Factors » Pedagogy & Instruction Individual Beliefs and Behaviors » Self-perception

Incorporating feminist pedagogy into the engineering learning experience

Resource Title:	Incorporating feminist pedagogy into the engineering learning experience
Description/Annotation:	This paper presents a framework for implementing feminist pedagogy along with demonstrative examples from engineering curricula. The framework for incorporating the values of feminism into the learning experience focuses on three aspects: 1) learning management strategies, 2) assessment and evaluation strategies and 3) strategies for critiquing existing power structures and the engineering process. Feminist pedagogy strategies suggested by others include cooperative learning, providing students a voice in classroom management decisions, structuring student interactions to facilitate all students' participation, having students participate in designing evaluation rubrics, and assigning projects that require more than technical skills.
Author Last Name:	Eschenbach
Author First Name:	E.A.
Additional Author:	Cashman
:	E.M.
Additional Author:	Waller
:	A.A.
Additional Author:	Lord
:	S.M.
Publication Date:	2005
Publication Title:	Frontiers in Education Conference (FIE)
Source:	IEEE
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Increasing Achievement and Higher-Education Representation of Under-represented Groups in Science, Technology, Engineering and Mathematics Fields: A Review of Current K-12 Intervention Programs

Resource Title: Increasing Achievement and Higher-Education Representation of Under-represented Groups in Science, Technology, Engineering and Mathematics Fields: A Review of Current K-12 Intervention Programs

Description/Annotation: This article provides a theoretical backdrop for K-12 STEM programs by reviewing current data on under-representation and developmental research describing individual-level social factors undergirding these data. Authors review prototypical designs of these programs, highlighting specific programs in the literature as examples of program structures and components currently in use. We then evaluate these interventions in terms of overall effectiveness, as a function of how well they address age-, ethnicity-, or gender-specific factors, suggesting improvements in program design based on these critiques. Finally, program evaluation methods are briefly reviewed and discussed in terms of how their empirical soundness can either enable or limit our ability to delineate effective program components.

Author Last Name: Valla

Author First Name: Jeffrey M.

Additional Author: Williams

: Wendy M.

Publication Date: 2012

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 18

Issue: 1

Source: Begell House

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) » [Retention](#)

Increasing Diversity in Computer Science: Acknowledging, Yet Moving Beyond, Gender

Resource Title:	Increasing Diversity in Computer Science: Acknowledging, Yet Moving Beyond, Gender
Description/Annotation:	This article discusses interviews with 33 Carnegie Mellon University students from the undergraduate senior class of 2002 in the School of Computer Science. Researchers found evidence of similarities among the perceptions of these women and men on definitions of computer science, explanations for the notoriously low proportion of women in the field, characterizations of a typical computer science student, impressions of recent curricular changes, a sense of the atmosphere/culture in the program, and suggestions for attracting and retaining well-rounded students in computer science. Authors conclude that efforts to increase diversity in the computer science field will benefit from a more broad-based approach that considers, but is not limited to, notions of gender difference.
Author Last Name:	Larsen
Author First Name:	Elizabeth A.
Additional Author:	Stubbs
:	Margaret L.
Publication Date:	2005
Page Numbers:	20
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	11
Issue:	2
Source:	Harvard University
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual](#)
[Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Increasing Enrollment of Minority Women in Engineering

Resource Title:	Increasing Enrollment of Minority Women in Engineering
Description/Annotation:	This paper investigates the participation of women engineers, particularly minority black women engineers in various courses in the Department of Civil Engineering and Department of Mechanical Engineering at Alabama A&M University. The average grades received by the male and female students in various undergraduate courses in both the Civil and Mechanical engineering departments were calculated for comparison. To explore the cause of low attendance of female students in engineering, as an assessment tool a survey instrument was developed, and was completed by women students of both the Civil and Mechanical engineering departments. The survey results were analyzed and data for both departments were compared. In order to increase the enrollment and retention of women in engineering programs, a survey tool was also developed and completed by the undergraduate Civil and Mechanical Engineering students. The study shows that certain facilitating conditions including scholarship, summer internship, awareness generation about the benefits of engineering education, increased levels of self-confidence development, desire to study technical education, etc are required.
Author Last Name:	Chowdhury
Author First Name:	Showkat
Additional Author:	Chowdhury
:	Tamara
Publication Date:	2007
Publication Title:	ASEE Annual Conference & Exposition
Source:	ASEE
Link Type:	Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Increasing Female Engineering Degree Attainment in Electrical and Mechanical Engineering Departments

Resource Title: Increasing Female Engineering Degree Attainment in Electrical and Mechanical Engineering Departments

Description/Annotation: The Engineering Equity Extension Service (EEES) project aims to increase the number of women who graduate with baccalaureate degrees in engineering, with a specific focus on the two largest engineering disciplines with the lowest female enrollments, electrical and mechanical. In 2008, EEES competitively selected 14 engineering departments and provided them access to experts in gender equity research as well as small grants for project development. The programs either focused on reaching out to high school girls to encourage their interest in engineering, while others focused on developing curriculum or providing faculty training in gender equitable teaching. This paper will discuss the results and lessons learned in the various programs.

Author Last Name: Cady
Author First Name: Elizabeth
Additional Author: Frotenberry

: Norman

Additional Author: Didion
: Catherine

Additional Author: Peterman
: Karen

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Link Type: Full Text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Increasing Female Enrollment in the Industrial Engineering Program at the University of Minnesota Duluth

Resource Title: Increasing Female Enrollment in the Industrial Engineering Program at the University of Minnesota Duluth

Description/Annotation: This paper describes the initial efforts of a study that was conducted to help the Industrial Engineering Department at the University of Minnesota Duluth understand factors that contribute to the relatively low enrollment of females in the program, and to identify steps that the department can take to reduce this discrepancy. The study began during Fall Semester 2000.

Author Last Name: Wilson

Author First Name: Martha C.

Publication Date: 2001

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Increasing Opportunities for Low-Income Women and Student Parents in Science, Technology, Engineering and Math at Community Colleges

Resource Title: Increasing Opportunities for Low-Income Women and Student Parents in Science, Technology, Engineering and Math at Community Colleges

Description/Annotation: This 81-page report from the Institute for Women's Policy Research says that while women represent a majority of college graduates overall, only 27.5% of Associate's degrees and

occupational certificates in the STEM fields were awarded to women in 2007. According to the study, women make up almost half of the American workforce but only around a quarter of the STEM labor pool. Data presented in the study shows that women are leaving some STEM fields. The report outlines a few rationales for the drop in women choosing STEM fields. The full report is available in PDF format.

Author Last Name: Costello
Author First Name: Cynthia B.
Publisher: Institute for Women's Policy Research (IWPR)
Publisher Location: Washington, DC
Publication Date: 2012, Mar
Page Numbers: 1-81
Source: IWPR
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

Increasing Retention of Women Engineering Students

Resource Title: Increasing Retention of Women Engineering Students
Description/Annotation: This paper reports the results of a study carried out over several years to determine the factors predicting success for women engineering students at Santa Clara University. Authors examined psychosocial factors, such as commitment to engineering and confidence in engineering abilities, as well as the effect of a specific intervention on the retention rate of young women engineering students.

Author Last Name: Sullivan
Author First Name: Kiernan
Additional Author: Davis
:
Ruth
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Educational Factors » Retention

Increasing the diversity of engineering education - a gender analysis in a PBL context

Resource Title: Increasing the diversity of engineering education - a gender analysis in a PBL context

Description/Annotation: This paper discusses how to increase the diversity of engineering education by making it more relevant and gainful for all students, as well as more attractive to women. Questions were raised whether, and in which ways the problem-based and project-based learning (PBL) method is apt for increasing gender diversity from both the quality and the quantity point of view.

Author Last Name: Du
Author First Name: Xiangyun
Additional Author: Kolmos
:
Anette
Publication Date: 2009, Oct
Page Numbers: 425-437
Publication Title: European Journal of Engineering Education
Volume: 34
Issue: 5
Source: Taylor and Francis
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Pedagogy & Instruction

Increasing the Enrollment of Women in Engineering

Resource Title:	Increasing the Enrollment of Women in Engineering
Description/Annotation:	This paper addresses several ways of attracting more women to the field of engineering. The authors address measures that can be taken to recruit women all along the engineering pipeline: K-12, undergraduate, and industry.
Author Last Name:	Minaie
Author First Name:	Afsaneh
Additional Author:	Sanati-Mehrizy
:	Reza
Publication Date:	2003
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Increasing the number of African American PhDs in the sciences and engineering: A strength-based approach

Resource Title:	Increasing the number of African American PhDs in the sciences and engineering: A strength-based approach
Description/Annotation:	Article explains the approach, outcomes, and findings of a program seeking to increase PhD degrees from minority students. Also addresses parenting practices which support these students before entering college.
Author Last Name:	Maton
Author First Name:	Kenneth I.
Additional Author:	Hrabowski III
:	Freeman A.
Publisher:	American Psychological Association

Publisher Location: Washington, D.C.
Publication Date: 2004, Sep
Page Numbers: 547-556
Publication Title: The American Psychologist
Volume: 59
Issue: 6
Source: APA
Database Name: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Increasing the Number of Women in Engineering at Universities and Colleges in Japan

Resource Title: Increasing the Number of Women in Engineering at Universities and Colleges in Japan

Description/Annotation: This paper reports on the results of a survey into the number of female engineering students, professors, and professional workers in Japan. The survey reveals that the relative proportion of females in the engineering field is remarkably low. Recent efforts to improve the situation are reviewed, but such attempts appear to be dismayingly half-hearted, and it is as of yet impossible to judge if these solutions will actually have any significant effect on increasing the number of women in the engineering field in Japan.

Author Last Name: Horton
Author First Name: Emiko Hirose
Additional Author: Miki
: Kumiko
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Increasing the Success of Minority Students in Science and Technology

Resource Title: Increasing the Success of Minority Students in Science and Technology

Description/Annotation: Analysis of enrollment and persistence rates of African American and Hispanic students majoring in STEM fields.

Author Last Name: Anderson

Author First Name: Eugene

Publisher: American Council on Education

Publisher Location: Washington, D.C.

Publication Date: 2006, Mar

Page Numbers: 1-25

Source: ACE

Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Increasing the Support Network of Female Engineering Students Through Society of Women Engineers (SWE) Activities

Resource Title: Increasing the Support Network of Female Engineering Students Through Society of Women Engineers (SWE) Activities

Description/Annotation: This paper discusses the diverse activities of the student chapter of the Society of Women Engineers (SWE) at Indiana Univ./Purdue Univ. Ft. Wayne (IPFW) over the last three years to

promote a sense of community, self-confidence, and mentoring among women engineering, technology, and computer science students. Descriptions and schedule of some activities are included.

Author Last Name: Thompson
Author First Name: Elizabeth A.
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Increasing women graduate students in STEM fields through a focused recruitment workshop

Resource Title: Increasing women graduate students in STEM fields through a focused recruitment workshop

Description/Annotation: This paper discusses a one-day workshop through the department of Electrical and Computer Engineering at Kansas State University titled "Finding the Ideal Graduate Program" for women students in STEM fields. The workshop was conducted using presentations from five faculty members and a panel of current graduate students. Feedback and recommendations for future work are presented.

Author Last Name: Gruenbacher
Author First Name: D.M.
Additional Author: Natarajan
:
Additional Author: Pahwa
:
Additional Author: Scoglio
:
C.

Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Abstract

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Individual and Environmental Factors that Significantly Impact Short- and Long-Term Interest in Engineering

Resource Title: Individual and Environmental Factors that Significantly Impact Short- and Long-Term Interest in Engineering

Description/Annotation: This 5-page research paper, presented at the Frontiers in Education Conference (FIE) in 2010, identifies key individual and environmental factors that have a significant impact on both the short-term intent to remain in an engineering major and a longer-term intention to be employed in engineering and how these vary by gender. Data from questionnaires completed by students in eight colleges or schools of engineering and from interviews conducted during nine campus visits demonstrated the importance of one individual quality and one environmental quality on both the short- and long-term interest in engineering of male and female undergraduate engineering majors. Results indicated that the perception that faculty members and peers cared about them and respected their ability to succeed in engineering was significant in predicting both men's and women's intent to remain in an engineering major. This research paper is available in PDF format.

Author Last Name: Creamer
Author First Name: Elizabeth G.
Additional Author: Amelink
: Catherine T.
Additional Author: Meszaros
: Peggy S.
Publisher: Frontiers in Education Conference (FIE), 2010 IEEE

Publisher Location: Washington, DC
Publication Date: 2010, Oct
Page Numbers: T2H-1 - T2H-5
Source: FIE
Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Influence of gender and computer teaching efficacy on computer acceptance among Malaysian student teachers: An extended technology acceptance model

Resource Title: Influence of gender and computer teaching efficacy on computer acceptance among Malaysian student teachers: An extended technology acceptance model

Description/Annotation: The purpose of this study is to validate the technology acceptance model (TAM) in an educational context and explore the role of gender and computer teaching efficacy as external variables. Structural equation modelling (SEM) was used as the main technique for data analysis. The findings from this study suggest that the model was adequately explained by the data. Overall, the model accounted for 36.8% of the variance in intention to use computers among student teachers. The results have also provided support for computer teaching efficacy and gender as significant variables in the TAM.

Author Last Name: Wong
Author First Name: Kung-Teck
Additional Author: Teo
:
Additional Author: Russo
:
Publication Date: 2012

Page Numbers: 1190-1207
Publication Title: Australasian Journal of Educational Technology
Volume: 28
Issue: 7
Source: Ascilite
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Influence of precollege experience on self-concept among community college students in science, mathematics and engineering

Resource Title: Influence of precollege experience on self-concept among community college students in science, mathematics and engineering

Description/Annotation: Female and minority students have historically been underrepresented in the field of science, mathematics, and engineering at colleges and universities. Although a plethora of research has focused on students enrolled in 4-year colleges or universities, limited research addresses the factors that influence gender differences in community college students in science, mathematics, and engineering. Using a target population of 1,599 aspirants in science, mathematics, and engineering majors in public community colleges, this study investigates the determinants of self-concept by examining a hypothetical structural model. The findings suggest that background characteristics, high school academic performance, and attitude toward science have unique contributions to the development of self-concept among female community college students. The results add to the literature by providing new theoretical constructs and the variables that predict students' self-concept. Funded by NSF GSE under award #0507882.

Author Last Name: Starobin
Author First Name: Soko S.
Additional Author: Laanan

: Frankie Santos
Publication Date: 2005
Page Numbers: 209-229
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Source: San Diego City College
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Influences for Selecting Engineering: Insights on Access to Social Capital from Two Case Studies

Resource Title: Influences for Selecting Engineering: Insights on Access to Social Capital from Two Case Studies

Description/Annotation: This paper employs the theory of Social Capital to explore the educational experiences and academic career decisions of engineering undergraduates. Two case studies are presented from a larger mixed-methods project which investigated the experiences of ethnically and socioeconomically diverse female engineering students at an urban research university.

Author Last Name: Trenor
Author First Name: Julie Martin
Additional Author: Yu
: Shirley L.
Additional Author: Waight
: Consuelo L.
Additional Author: Zerda
: Katherine S.
Publisher: Frontiers in Education Conference
Publication Date: 2008

Source: IEEE Xplore

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

InformalScience

Resource Title: InformalScience

Description/Annotation: InformalScience is a growing online community that strives to support knowledge-sharing, collaboration and innovation among professionals in the field of informal science education and learning. The site features a searchable database of research, reports, projects, events and resources contributed by the community. Users can access and contribute informal learning research references; share project impact and evaluation findings with the community; and create or update project pages to showcase research and projects. The site also features quarterly interviews with leaders in the field as well as RSS Feeds to track new and updated content on the website.

Web site Link: [Link to Resource](#)

More: InformalScience is an ongoing project of the University of Pittsburgh's Center for Learning in Out-of-School Environments (UPCLOSE) at the Learning Research and Development Center. UPCLOSE is a group of researchers, designers, educators and technologists dedicated to building and applying a practical theory of learning to the design of informal environments and experiences.

Resources: The wealth of information on the InformalScience website is categorized into the following areas:

- [Projects](#) - share project information including funders, award date, and award amount.
- [Research](#) - search, link and contribute to the growing collection of references, abstracts and reviews of published, peer-reviewed work.
- [Evaluation](#) - share project impacts and evaluation findings; upload evaluation reports for informal learning and science-related projects.

- [Members](#) - access to member profiles, roject pages, discussions, and news updates.
- [Calendar](#) - Includes conferences, funding deadlines, seminars & workshops.
- [RSS Feeds](#) - a digest of recently published research literature, new NSF funding, upcoming events, or the latest evaluations.

Site Access Details: This site provides information to the general public free of charge. Free registration allows users to create and update Project Pages, add Research Citations and Evaluation Reports, comment on research and projects, and participate in discussion forums.

Partners and Funding: InformalScience is funded by NSF and is an ongoing project of the University of Pittsburgh's UPCLOSE initiative. UPCLOSE works closely with an eleven-member working Board of Advisors to build the next version of InformalScience.org.

Contact E-mail: informalscience@ideum.com

Last Update Date: 2011, Dec 27

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Informal Academic Preparation](#)

Information Technology Business Advocacy Roundtable Report

Resource Title: Information Technology Business Advocacy Roundtable Report

Description/Annotation: This joint NCWIT, CRA and ACM report summarizes proceedings from the Information Technology Business Advocacy Roundtable which took place in Washington, DC, on June 19, 2008. The roundtable brought together over 50 representatives from government, business, and advocacy groups to discuss the serious challenges confronting the U.S. IT workforce. The roundtable assembled members of both the public and private sectors to advance ideas for developing a sustainable IT workforce in America. The report includes detailed statistics, projections and figures regarding the U.S. human resources in IT-related fields.

Author Last Name: NCWIT

Additional Author: CRA

Additional Author: ACM

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2008, Aug 25
Page Numbers: 1-9
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) » [Employment Career Factors](#) » [Legal Considerations Career Factors](#) » [Retention](#)

Information Technology: How the Power of IT and the Power of Women will Power the Future

Resource Title: Information Technology: How the Power of IT and the Power of Women will Power the Future

Description/Annotation: This 10-page report from NCWIT highlights the importance of IT to the economic future of the U.S., and why women's participation is crucial to remaining globally competitive. According to the report's data and figures, IT jobs will be among the fastest growing over the coming decade, increasing at more than twice the rate of total new jobs. However, the report indicates that women currently are under-represented at every level of computing and information sciences (CIS) higher education. This NCWIT resource offers recommendations for how institutions and individuals can help increase women's participation in IT.

Author Last Name: NCWIT
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2006, Aug 31
Page Numbers: 1-10
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Ingroup Bias and Self-Esteem: A Meta-Analysis

Resource Title: Ingroup Bias and Self-Esteem: A Meta-Analysis

Description/Annotation: Psychology based meta-analysis of relation between self-esteem and belonging to a group. Would be useful for WEP directors developing programs for specific affinity groups.

Author Last Name: Aberson

Author First Name: Christopher L.

Additional Author: Healy

:

Additional Author: Romero

:

Publication Date: 2000

Page Numbers: 157-173

Publication Title: Personality and Social Psychology Review

Volume: 4

Issue: 2

Source: Franklin and Marshall College; Claremont Graduate University

Database Name: Sage

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Innovate America: National Innovation Initiative Summit and Report

Resource Title: Innovate America: National Innovation Initiative Summit and Report

Description/Annotation: This 92-page report from the Council on Competitiveness includes the agenda and panel discussions from the National Innovation Initiative (NII) Summit, as well as detailed conclusions and summary of the summit. According to the report, America's challenge is to unleash its innovation capacity to drive productivity, standard of living and leadership in global markets. The report includes three NII recommendations regarding US talent, investment and infrastructure. The full report is available in PDF format.

Author Last Name: Council on Competitiveness

Publisher: Council on Competitiveness

Publisher Location: Washington, DC

Publication Date: 2005

Page Numbers: 1-93

Source: Council on Competitiveness

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Innovation with Impact: Creating a Culture for Scholarly and Systematic Innovation in Engineering Education

Resource Title: Innovation with Impact: Creating a Culture for Scholarly and Systematic Innovation in Engineering Education

Description/Annotation: This 77-page report from the American Society for Engineering Education (ASEE) details results of the second phase of an ongoing project aimed towards creating a vibrant engineering academic culture for scholarly and systematic innovation to ensure that the U.S. engineering education enterprise keeps pace with changes in the engineering profession and in the world. The report includes current "state of the culture" results from a survey of faculty committees, chairs, and deans. The report provides insight into current views and practices in teaching and learning; faculty preparation and engagement; and infrastructure and support for engineering education innovation. The report also includes seven recommendations to address the question of how

the U.S. can build a stronger foundation for the engineering education enterprise. The full report is available in PDF format.

Author Last Name: Jamieson
Author First Name: Leah H.
Additional Author: Lohmann
:
Jack R.
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2012, Jun
Page Numbers: 1-77
Source: ASEE
Source Type: Full Test

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Innovations in Inclusion: The Purdue Faculty and Staff Diversity Story, 1997-2007

Resource Title: Innovations in Inclusion: The Purdue Faculty and Staff Diversity Story, 1997-2007

Description/Annotation: Describes the ten year journey at Purdue to implement a diversity initiative and drive changes in the academic culture to recruit, support and encourage its diverse student population.

Author Last Name: Bunker
Author First Name: Barbara
Additional Author: Eddy
:
Janice
Publisher: Purdue University Press
Publisher Location: West Lafayette, IN
Publication Date: 2009

Page Numbers: 100
Source: Purdue University Press
Source Type: Summary, Available for sale

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Career Factors Cultural Influences Educational Factors Cultural Influences » Gender Diversity Career Factors » Hiring Practices Educational Factors » Retention

Innovative Technology Experiences for Students and Teachers (ITEST) Learning Resource Center

Resource Title: Innovative Technology Experiences for Students and Teachers (ITEST) Learning Resource Center

Description/Annotation: The ITEST Learning Resource Center is a web portal for 161 US-based ITEST projects funded by the National Science Foundation(NSF). These resources are useful to educators and researchers working to increase the number of students pursuing STEM coursework and careers.

Web site Link: [Link to Resource](#)

More: The Innovative Technology Experiences for Students and Teachers (ITEST)* program

(program solicitation)

was established by the National Science Foundation in direct response to current concerns and projections about the growing demand for professionals and information technology workers in the U.S. and seeks solutions to help ensure the breadth and depth of the STEM workforce. ITEST supports research studies to address questions about how to find solutions. It also supports the development, implementation, testing, and scale-up of implementation models.

Resources: Resources include:

- Searchable map for nationwide ITEST projects by project characteristic
- Searchable publications and information created by the Learning Resource Center (LRC) in collaboration with all of

the ITEST Projects about successes, challenges, promising practices and lessons learned.

- Searchable library of resources related to the major themes of the ITEST program. This library contains publications, newsletters, curricula, presentations, news items, and more.

Site Access Details: The site is publicly accessible and contains a link to a private community for ITEST project teams.

Partners and Funding: The ITEST Learning Resource Center is managed by Education, Employment, & Community Programs (EEC) from the Education Development Center, Inc. (EDC), a non-profit organization.

Contact E-mail: DRLITEST@nsf.gov

Last Update Date: June 29, 2013

Resource Type Categories: [Database/Tool](#) » [Research Tools Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment Career Factors](#) » [Retention](#)

Insights from Vignettes: African American Women's Perceptions of Discrimination in the Science Classroom

Resource Title: Insights from Vignettes: African American Women's Perceptions of Discrimination in the Science Classroom

Description/Annotation: This article presents results from a recent web survey that uses the vignette methodology to examine young women's perceptions of discrimination in the science classroom. The vignette findings suggest that a majority of young African American women see race and gender barriers in the science classroom. Although African American women see race as a more formidable barrier than gender, they are more likely than White women to see gender barriers as well. Results reveal advantages of the vignette method for gaining detail and control in the context of the social survey. It is argued that the combination of web survey technology and vignette methodology has considerable potential for providing substantive insights in social science research in general and science education research in particular.

Author Last Name: Hanson

Author First Name: Sandra L.

Publication Date: 2006

Page Numbers: 11-34

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Inspiring Girls Now in Technology Education (IGNITE)

Resource Title: Inspiring Girls Now in Technology Education (IGNITE)

Description/Annotation: IGNITE is an outreach program based out of Seattle, WA that encourages high school girls to consider careers in technology. It offers resources for anyone to start IGNITE chapters and run IGNITE programs in their areas.

Web site Link: [Link to Resource](#)

More: Based in Washington, IGNITE works closely with Seattle Schools, • encouraging high school girls to consider careers in technology.

- They do presentations at schools, field trips to local companies, job shadows, conferences, and many other events to connect high tech women mentors with young women.
- They provide students with information on scholarships, internships, and community resources to help them succeed in the fields of engineering and technology.
- They have also created the IGNITE Toolkit, a comprehensive guide, full of step by step information on how to start and maintain a successful and joyful IGNITE chapter. It also includes all the forms, letters, flyers and handouts you will ever need to run a program.

Resources: Site resources include:

- Chapter Directory <http://www.igniteworldwide.net/>
- Toolkit Information <http://www.igniteworldwide.org/>
- Programs <http://www.ignite-us.org/ignite-programs.html>
- Student Resources <http://www.ignite-us.org/student-resources/>

Site Access Details: This site is publicly accessible.

Partners and Funding: IGNITE is a professional membership-based organization, from which mentors are aligned with students.

Last Update Date: May 8, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Inspiring Girls to Pursue Careers in Information Technology

Resource Title: Inspiring Girls to Pursue Careers in Information Technology

Description/Annotation: This webcast presentation, available as a Powerpoint presentation, highlights free materials and information from the National Center for Women & Information Technology (NCWIT) for attracting more girls and underrepresented groups to computing and information technology. The webcast also shares how formal and informal educators are using these resources to strengthen programming for girls.

Author Last Name: NCWIT

Publisher: National Girls Collaborative Project (NGCP)

Publisher Location: Lynnwood, Wa

Publication Date: 2011, Feb

Source: NGCP

Source Type: Link to Powerpoint Presentation

Resource Type Categories: Webinar/Video Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Informal Academic Preparation Webinars: ENGAGE in Engineering

Inspiring Leadership through Emotional Intelligence (MOOC)

Resource Title: Inspiring Leadership through Emotional Intelligence (MOOC)

Description/Annotation: Offered through Coursera, this open online course taught by leadership expert Dr. Richard Boyatzis from Case Western Reserve University delves into "Resonant Leadership", the title of his book with co-author Annie McKee. The course focuses on how you

"nurture and inspire change in yourself and others" through techniques including improved emotional intelligence, compassionate coaching, personal and shared team visions.

Web site Link: [Link to Resource](#)

Resources: Resonant Leadership: Renewing Yourself and Connecting with Others Through Mindfulness, Hope, and Compassion

Site Access Details: This site is publicly accessible; the course is free as of Feb 2015.

Partners and Funding: Richard Boyatzis is an instructor at Case Western Reserve University.

Last Update Date: 2015 Feb 16

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Individual Beliefs and Behaviors](#) » [Self-perception](#)

Institute for Broadening Participation (IBP)

Resource Title: Institute for Broadening Participation (IBP)

Description/Annotation: IBP is a non-profit organization created to design and implement strategies to increase access to STEM (Science, Technology, Engineering, and Mathematics) education and careers for diverse underrepresented groups. IBP's mission is to support faculty and administrators as they work to include students from a variety of backgrounds in their programs.

Web site Link: [Link to Resource](#)

More: IBP strives to foster an on-going exchange of ideas and resources between individuals and institutions who are working to navigate their future in the STEM fields.

Resources: The IBP website provides access to ongoing projects and resources regarding STEM fields, including:

- Pathways to Science
- AGEP Pathways and Connections
- Maine STEM
- MS PHD's
- National Math Alliance
- Pathways to Engineering
- Pathways to Ocean Science

Site Access Details: This is a publicly accessible site.

Partners and Funding: IBP is a nonprofit organization that is overseen by a 15-person staff, regional specialists, and an advisory board. Funding of IBP is provided by the National Science Foundation (NSF) and the National Aeronautics & Space Administration (NASA).

Contact E-mail: contactus@ibparticipation.org

Last Update Date: July 25, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Institute for Higher Education Policy (IHEP)

Resource Title: Institute for Higher Education Policy (IHEP)

Description/Annotation: Institute for Higher Education Policy (IHEP) is a non-profit organization influencing public policy that will increase the participation and success of students in post-secondary education across the globe.

Web site Link: [Link to Resource](#)

More: In addition to its policy advocacy, IHEP provides annual research for policy makers and the general audience, conducts formative and summative program evaluations and works with colleges and universities on global student programs.

Resources: Resources available:

- Publications and Fact Sheets available free of charge
- Research projects with related publications, funding sources and topical experts
- Program alliances
- Media kits
- Links to adjacent organizations

Partners and Funding: Founded in 1993, IHEP is funded by partners such as the Bill & Melinda Gates Foundation, Lumina Foundation for Education, National Center for Education Statistics, the National Science Foundation and Pew Charitable Trusts.

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Institutional Barriers and Their Effects: How can I talk to colleagues about these issues? (Talking Points)

Resource Title:	Institutional Barriers and Their Effects: How can I talk to colleagues about these issues? (Talking Points)
Description/Annotation:	Why are institutional barriers (IBs) a problem for organizations? Because IBs seem natural, they are difficult to detect. Instead, individuals are blamed for failures or difficulties that actually result from these barriers. These individuals are seen as needing "special" help or "accommodations"; however, these "accommodations" would most likely have been norms had these individuals been part of the original culture. Failing to recognize and address these systems leads to increased employee turnover and hinders company productivity, innovation, and competitiveness.
Author Last Name:	Ashcraft
Author First Name:	Catherine
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2009
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Organizational Culture](#)

Institutional Barriers for Women Scientists and Engineers: What Four Years of Survey Data of National Science Foundation POWRE Awardees Reveal

Resource Title:	Institutional Barriers for Women Scientists and Engineers: What Four Years of Survey Data of National Science Foundation POWRE Awardees Reveal
Description/Annotation:	This 15-page book chapter briefly discusses some of the events and programs that are intended to address barriers to women's full

participation in academic science and engineering (ADVANCE, FAW, VPW, CAA POWRE). Includes a discussion of the status of women in science and engineering, and the results of a study of barriers identified by NSF Professional Opportunities for Women in Research and Education (POWRE) award recipients.

Author Last Name: Rosser
Author First Name: Sue V.
Publisher: Greenwood Publishing Group
Publisher Location: Westport, CT
Publication Date: 2002
Page Numbers: 145-159
Publication Title: Women in Higher Education: Empowering Change
Source: ACS
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Institutional Ethnography: A research method to investigate the work-life experiences of women faculty members in STEM disciplines

Resource Title: Institutional Ethnography: A research method to investigate the work-life experiences of women faculty members in STEM disciplines

Description/Annotation: Institutional ethnography (IE) is a method used in sociology to understand the experiences of marginalized people in different kinds of institutions. IE allows researchers to examine how institutions' rules and regulations impact the lives and work experiences of people who work in those institutions. The main data collection processes for IE are interviews, discursive analyses of organizational texts and documents, and observations to study institutional members' interactions with these same texts and policies. Researchers focus on how institutional participants understand, perceive, and negotiate institutional rules and how those understandings and negotiations affects their personal and professional successes. This paper outlines how IE is an effective

method of investigating the experiences of women in STEM faculty positions. Authors describe IE's use as a research method within the ADVANCE-Purdue project. ADVANCE-Purdue is a NSF-sponsored project that aims to improve the job success of faculty, with a particular focus on women of color, in the science, technology, engineering and mathematics (STEM) disciplines of Purdue University. Using IE as a method to study the career-based experiences of the women faculty members of the STEM disciplines, authors ask how institutionally generated texts shape their experiences as faculty members. Funded by NSF GSE under award #0811194.

Author Last Name: Banerjee
Author First Name: Dina
Additional Author: Pawley
:
Alice
Publication Date: 2011
Publication Title: 2010 ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Publications by Funder](#)

Institutional Factors Contributing to Dearth of Women STEM Faculty: Classification and Status Matter; Location Doesn't

Resource Title: Institutional Factors Contributing to Dearth of Women STEM Faculty: Classification and Status Matter; Location Doesn't

Description/Annotation: This 14-page article reports on a study that examined how women's employment and equity in academic science and engineering careers at higher education institutions differed with respect to Carnegie classifications of these institutions. According to this study, location of the institution (rural or urban) mattered less than institution type and status.

Author Last Name: Rosser

Author First Name: Sue V.
Additional Author: Daniels
: Jane Z.
Additional Author: Wu
: Lan
Publication Date: 2006
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 1
Source: Begell House
Source Type: Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Institutional Transformation and the Advancement of Women Faculty: The Case of Academic Science and Engineering

Resource Title: Institutional Transformation and the Advancement of Women Faculty: The Case of Academic Science and Engineering

Description/Annotation: This chapter addresses the nature of the problem of women's relatively slow and low attainment of full rank in academia, and the solutions that may be applied to improve the advancement of women faculty in academic science and engineering. In doing so, it addresses "institutional transformation" as a concept in the study of higher education, broadly, and as an organized initiative. In conclusion, it considers both the prospects for, and the limits upon, institutional transformation as a strategy for women's advancement.

Author Last Name: Fox
Author First Name: Mary Frank
Publisher: Springer
Publication Date: 2008

Page Numbers: 73-103
Publication Title: Higher Education: Handbook of Theory and Research
Volume: 23
Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Institutional Transformation at North Dakota State University

Resource Title: Institutional Transformation at North Dakota State University
Description/Annotation: Paper describes efforts at NDSU to implement aspects of the ADVANCE IT program between 2002 and 2007 without the financial resources of being a funded ADVANCE IT program. NDSU leveraged ADVANCE materials and processes gaining management buy-in, and implementing data collection and no/low-cost policy and organizational changes. In 2008, NDSU became an ADVANCE IT grantee, enabling them to accelerate their organizational change efforts.
Author Last Name: Bilen-Green
Author First Name: Canan
Additional Author: Birmingham
:
Elizabeth
Additional Author: Burnett
:
Ann
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Institutional Transformation: Changing Shared Values to Change Behavior, or Changing Behavior to Change Shared Values?

Resource Title: Institutional Transformation: Changing Shared Values to Change Behavior, or Changing Behavior to Change Shared Values?

Description/Annotation: In this 13-page paper from the 2012 WEPAN National Conference, North Dakota State University reflects on its progress after receiving an NSF-ADVANCE grant to transform the institution to one with improved gender balance throughout faculty and administrative ranks. The conference paper discusses the progress of initiating change through direct behavioral mandates and visible actions compared to changing individual and collective ideas, goals, and values. The full paper is available in PDF format.

Author Last Name: Froelich

Author First Name: Karen A.

Additional Author: Bilen-Green

: Canan

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-13

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Institutionalisation of gender and diversity management in engineering education

Resource Title: Institutionalisation of gender and diversity management in engineering education

Description/Annotation: This paper describes the establishment of the scientific unit 'Integration Team - Human Resources, Gender and Diversity Management, at RWTH Aachen University, and how this program is proactively dealing with recruiting women and minorities into science and engineering fields where these groups have been historically under-represented. The authors describe the institutional integration of gender and diversity management at a technical university with special emphasis on measures and activities in research and teaching, aiming at tackling the under-representation of women and minorities in science and technology.

Author Last Name: Carmen
Author First Name: Leicht-Scholten
Additional Author: Weheliye
: Asi-Juliya
Additional Author: Wolffram
: Andrea
Publication Date: 2009, Oct
Page Numbers: 447-454
Publication Title: European Journal of Engineering Education
Volume: 34
Issue: 5
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity University Programs](#)

Institutionalization, Sustainability, and Repeatability of ADVANCE for Institutional Transformation

Resource Title: Institutionalization, Sustainability, and Repeatability of
ADVANCE for Institutional Transformation

Description/Annotation: This book describes a number of programs that arose in U.S. institutions from the funding provided by the NSF's ADVANCE Institutional Transformation program. Includes successful programs and knowledge gleaned from the implementation of programs to improve the working environments of women in science and engineering.

Author Last Name: Rosser

Author First Name: Sue V.

Additional Author: Chameau

: Jean-Lou

Publisher: University of Michigan Press

Publisher Location: Ann Arbor, MI

Publication Date: 2007

Page Numbers: 281-297

Source: IDEAS

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Institutions Developing Excellence in Academic Leadership: Regional Cooperation, Regional Progress

Resource Title: Institutions Developing Excellence in Academic Leadership: Regional Cooperation, Regional Progress

Description/Annotation: This 11-page paper from the 2012 WEPAN National Conference describes the goals, initiatives, and results of Institutions Developing Excellence in Academic Leadership (IDEAL)'s three-year projects to seed gender equity transformation at five regional public institutions of higher education in northern Ohio and Case Western Reserve University. The conference paper highlights the institutional transformation themes, activities, findings, and sustainability plans for the projects undertaken at each of six partner universities, including focus group studies, climate surveys, policy analyses, and data collection of indicators of gender equity. The full paper is available in PDF format.

Author Last Name: Bilimoria
Author First Name: Diana
Additional Author: Shaffer
:
Amanda
Additional Author: Singer
:
Lynn T.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-11
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Instructor and Student Perspectives on a Graduate Professional Development Course: Career Issues for Women in Engineering

Resource Title: Instructor and Student Perspectives on a Graduate Professional Development Course: Career Issues for Women in Engineering

Description/Annotation: This paper presents a discussion-based professional development course developed and taught in Spring 2009 to a diverse group of female chemical engineering graduate students. The goal of this course was to assist the students in their professional growth by providing the opportunity for open discussion combined with constructive and positive feedback. The perspectives of the instructor and the students are presented side-by-side and offer a view of the effectiveness of a course geared towards increasing the students' career success.

Author Last Name: Walters
Author First Name: Keisha
Additional Author: Minerick
:
Adrienne

Additional Author: Srivastava
: Soumya
Additional Author: Hall
: Jacqueline
Additional Author: Thomas
: Heather
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Career Factors](#) » [Professional Development](#)

Instructor's Race and Gender and Freshman Student Perceptions

Resource Title: Instructor's Race and Gender and Freshman Student Perceptions
Description/Annotation: This paper described an experiment conducted to quantify the effect of an instructor's race and gender on the perceptions of freshman engineering students. At the beginning of their first semester, students were asked to evaluate a series of statements concerning their perceptions of Virginia Tech's engineering program and its commitment to equal opportunity for men, women, and minorities. The results indicate that, in general, the race or gender of the instructor had little effect on the social perceptions of first semester freshman engineering students at Virginia Tech.

Author Last Name: Connor
Author First Name: Jeffrey B.
Additional Author: Kampe
: J.C. Malzahn
Additional Author: Aning

: Alex O.
Publication Date: 2000
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Integrated Design Engineering Activity Series (IDEAS)

Resource Title: Integrated Design Engineering Activity Series (IDEAS)

Description/Annotation: Provided by the American Society of Mechanical Engineers (ASME), website provides low-cost, “hands-on” engineering projects for use in middle school math, science and technology classes.

Web site Link: [Link to Resource](#)

Resources: Key Features

- Each project concept has three levels of activity – exploratory, intermediate, and advanced. Goals have been set for each level, allowing teachers and student teams to work in stages, from basic investigation through actual construction.
- Each activity level has desired outcomes or performance criteria to mark progress toward the achievement of learning objectives. Each project comes with an evaluation ‘Rubric’ to help teachers visualize progress toward the attainment of goals, and a ‘Reflection Sheet’ to gather student feedback at each stage in a project.
- A “Just for Teachers” page looks at the underlying math, science, or engineering principles, the problem-solving process, materials and methods of construction, and collateral resources.
- Each IDEAS project has a Curriculum/ Standards/Connections page, relating the activity to curriculum development standards in the United States.

Site Access Details: This site is publicly accessible.

Partners and Funding: IDEAS is the result of a project funded by The Engineering Foundation and organized by two of the worlds major engineering societies, the American Society of Mechanical Engineers (ASME) and the American Society of Civil Engineers (ASCE).

Contact E-mail: infocentral@asme.org

Last Update Date: June 9, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Integrating New Male and Female Junior Faculty into the Drexel University College of Engineering

Resource Title: Integrating New Male and Female Junior Faculty into the Drexel University College of Engineering

Description/Annotation: This paper discusses three programs at Drexel University aimed toward successfully integrating a large number of new junior faculty into the existing engineering departments: a junior faculty advisory board, engineering-specific new faculty orientation, and a women in engineering research network. Success will be measured both quantitatively through funding, publication, and tenure rates, as well as qualitatively through new faculty surveys.

Author Last Name: Clyne

Author First Name: Alisa

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Integrating the engineering design process in the kindergarten science classroom: Can Kindergarteners become engineers?

Resource Title: Integrating the engineering design process in the kindergarten science classroom: Can Kindergarteners become engineers?

Description/Annotation: This article outlines a kindergarten teacher's experience integrating the engineering design process into the elementary school classroom. During a series of professional development sessions with engineering education faculty, elementary school faculty learned about the fundamental ideas, concepts, and processes related to engineering. Faculty learned about and applied the engineering design process. Faculty used mechanical engineering skills to explore different materials and shapes conducive to catching wind, by designing sails for small boats and designing windmill blades. Funded by NSF GSE under award #0734091.

Author Last Name: Wujczyk

Author First Name: Lisa

Additional Author: Capobianco
: Brenda M.

Additional Author: Diefes-Dux
: Heidi

Publication Date: 2010

Page Numbers: 36-45

Publication Title: The Michigan Science Teacher Association Journal

Volume: 55

Source: MSTA

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student](#)
[Interaction](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#)
» [Pedagogy & Instruction](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

**Integrating Undergraduate Research into Engineering:
A Communications Approach to Holistic Education**

Resource Title: Integrating Undergraduate Research into Engineering: A Communications Approach to Holistic Education

Description/Annotation: Details a program called the Research Communications Studio at the University of South Carolina. The purpose of the program was to train undergraduate engineering students in communication skills and research skills. Students worked closely with engineering faculty and communications faculty while participating in year-round research. The mixed-method research conducted with the students in the program indicated enhanced engineering expertise through communications study and possibility of effective group learning. Functional program model for low student-to-faculty ratio.

Author Last Name: Thompson

Author First Name: Nancy S.

Additional Author: Alford

: Elisabeth M.

Additional Author: Liao

: Changyong

Additional Author: Johnson

: Robert

Additional Author: Matthews

: Michael A.

Publication Date: 2005

Publication Title: Journal of Engineering Education

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

**InTEL: Interactive Toolkit for Engineering Learning
Contextualizing Statics Problems to Expand and
Retain Women and URM Engineers**

Resource Title: InTEL: Interactive Toolkit for Engineering Learning
Contextualizing Statics Problems to Expand and Retain Women
and URM Engineers

Description/Annotation: This paper discusses the InTEL Project, which aims to improve
Statics learning generally and to increase representation of
women and Under-Represented Minorities (URMs) in
Engineering by creating interactive problems drawn from real
world contexts that demonstrate the usefulness of engineering.

Author Last Name: Murray

Author First Name: Janet H.

Additional Author: Valle
:
Christine

Additional Author: Rosser
:
Sue

Additional Author: Newstetter
:
Wendy C.

Additional Author: Jacobs
:
Laurence J.

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Intending to Stay: Images of Scientists, Attitudes Toward Women, and Gender as Influences on Persistence among Science and Engineering Majors

Resource Title: Intending to Stay: Images of Scientists, Attitudes Toward
Women, and Gender as Influences on Persistence among Science
and Engineering Majors

Description/Annotation: This study compared three common ways of measuring persistence-commitment to major, degree aspirations, and commitment to a science or engineering career. Researchers emphasized factors that would encourage students to persist, including positive images of scientists and engineers, positive attitudes toward gender equity in science and engineering, and positive classroom experiences. A survey was administered in classrooms to a total of 285 female and male students enrolled in two required courses for majors. The results indicate that the different measures of persistence were sensitive to different influences but that students' gender did not interact with their images, attitudes, and experiences in predicted ways. The study concludes that an individual student's gender may be a more important factor in explaining why some female students leave their science and engineering majors than in explaining why others stay.

Author Last Name: Wyer
Author First Name: Mary
Publication Date: 2003
Page Numbers: 1-16
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Source: NCSU
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Interest Enhancements to Science Experiments: Interactions with Student Gender

Resource Title: Interest Enhancements to Science Experiments: Interactions with Student Gender

Description/Annotation: Comparisons of self-reported interest in varying experimental conditions by gender. Males were more attentive to aspects of control while women were drawn to social contexts.

Author Last Name: Martinez
Author First Name: Michael E.
Publisher: John Wiley and Sons, Inc.
Publisher Location: Hoboken, NJ
Publication Date: 1992
Page Numbers: 167-177
Publication Title: Journal of Research in Science Teaching
Volume: 29
Issue: 2
Source: U.S. Dept. of Education
Database Name: Wiley InterScience
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

International Journal of Gender, Science and Technology (GST)

Resource Title: International Journal of Gender, Science and Technology (GST)
Description/Annotation: Online journal focusing on gender issues in and of science and technology, including engineering, construction and the built environment, and aims to explore the intersections of policy, practice and research.
Author Last Name: Herman
Author First Name: Clem (ed.)
Publisher: The Open University (OU)
Publisher Location: Milton Keynes, UK
Publication Date: 2009+
Source: GST
Source Type: Abstract, Full text

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

International Society for Technology in Education (ISTE)

Resource Title:	International Society for Technology in Education (ISTE)
Description/Annotation:	ISTE is a membership association for educators providing leadership and services to improve teaching and learning by advancing the effective use of technology in pre K-12 education.
Web site Link:	Link to Resource
More:	Site includes National Educational Technology Standards (NETS) resources for students, teachers, administrators, and technology facilitators.
Resources:	Educator resources include: <ul style="list-style-type: none">• Assessment tools - annotated resources for assessment and testing tools/sites• Curriculum resources - lesson plans, homework, special education, standards• Equity resources addressing minorities, gender and the digital divide• Funding/grant sources• Policy/media sources• Tech Integration offers planning, advice and software/hardware recommendations• Your Learning Journey has free and for sale resources on learning technologies and web 2.0
Site Access Details:	The site is publicly accessible and offers links for members to private community resources.
Partners and Funding:	Home of the National Educational Technology Standards (NETS), the Center for Applied Research in Educational Technology (CARET), and the National Educational Computing Conference (NECC), ISTE represents more than 100,000 professionals worldwide.
Contact E-mail:	iste@iste.org
Last Update Date:	June 10, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

International Technology and Engineering Educators Association (ITEEA)

Resource Title: International Technology and Engineering Educators Association (ITEEA)

Description/Annotation: The International Technology and Engineering Educators Association (ITEEA) is the professional organization for technology, innovation, design, and engineering educators. Its mission is to promote technological literacy for all by supporting the teaching of technology and promoting the professionalism of those engaged in these pursuits.

Web site Link: [Link to Resource](#)

More: ITEEA is a professional association for technology education teachers who teach a curriculum called "technology education" which is problem-based learning utilizing math, science and technology principles. Technological Studies Involve:

- Designing, developing, and utilizing technological systems
- Open-ended, problem-based design activities
- Cognitive, manipulative, and effective learning strategies
- Applying technological knowledge and processes to real world experiences using up-to-date resources
- Working individually as well as in a team to solve problems

Resources:

- Engineering byDesign™ - Standards-based national model for Grades K-12 that delivers technological literacy; built on [Standards for Technological Literacy \(ITEA\)](#); [Principles and Standards for School Mathematics \(NCTM\)](#); and [Project 2061, Benchmarks for Science Literacy \(AAAS\)](#).
- Publications - Technology Teacher, Journal of Technology Education, Standards for Technological Literacy
- Social/Professional Networking - Idea Garden, Facebook, Twitter, Blogger, LinkedIn
- Grants, Scholarships, Awards

Site Access Details: This site has publicly accessible and members-only areas.

Partners and Funding: ITEEA is a membership organization.

Contact E-mail: iteea@iteea.org

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

International Women's Air & Space Museum

Resource Title: International Women's Air & Space Museum

Description/Annotation: The mission of the International Women's Air & Space Museum is to preserve the history of women in aviation and space and to document their continuing contributions today and in the future.

Web site Link: [Link to Resource](#)

More: The International Women's Air & Space Museum, Inc. (IWASM) began as a committee of Ninety-Nines who started saving memorabilia and history of women pilots. The Ninety-Nines is an international organization of women pilots formed in 1929. There were 99 charter members and Amelia Earhart was the first president. In 1986 the museum opened in Centerville, Ohio. IWASM was welcomed by the City of Cleveland, Ohio in 1998.

Resources:

- Collections - The museum's collection includes artifacts, photographs, articles, textiles, art work and paper items relating to the history of women in aviation and space. Finding aids for some of the collections are available online.
- Research - The Fay Gillis Wells Research Center is an excellent resource if you are conducting research on women in air & space.

Site Access Details: This site is publicly accessible.

Last Update Date: 2015 Feb 16

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) » [Employment Cultural Influences](#) » [Gendered Occupations & Study Choices Career Factors](#) » [Leadership & Management Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

International Women's Day-in-a-Box: Raising Awareness, Igniting Change

Resource Title: International Women's Day-in-a-Box: Raising Awareness, Igniting Change

Description/Annotation: "International Women's Day-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. This Box is designed to help IT

companies and departments celebrate successes and address barriers to women's full participation in IT, and capitalize on women's innovative thinking and leadership potential. This Box is aimed to help establish a culture and expectation for broader diversity of thought in IT. This Box includes includes templates and instructions available as Word documents, as well as a 27-page overview available in PDF format.

Author Last Name: NCWIT
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2008, Feb
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Retention](#)

Internet Surveys by Direct Mailing: An Innovative Way of Collecting Data

Resource Title: Internet Surveys by Direct Mailing: An Innovative Way of Collecting Data

Description/Annotation: This 13-page article describes the use of Internet direct mailings to distribute surveys. An opinion poll about global risks to mankind and solutions was sent to 8,859 randomized email addresses. Results of the opinion poll and the use of the new medium of Internet direct mailings for surveys and polls were discussed.

Author Last Name: Swoboda
Author First Name: Walter J.
Additional Author: Muhlberger
:
Nikolai
Additional Author: Weitkunat
:
Rolf
Additional Author: Schneewei?

: Sebastian
Publication Date: 1997
Page Numbers: 242-255
Publication Title: Social Science Computer Review
Volume: 15
Issue: 3
Source: Sage
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Media & Entertainment](#)

Interrupting Bias in the Faculty Search Process

Resource Title: Interrupting Bias in the Faculty Search Process

Description/Annotation: The website is an online guide to be used in conjunction with the short film "Interrupting Bias in the Faculty Search Process." The live action film was created from a case study used at national leadership development workshops and aims to transform the hiring process for a more diverse faculty. This website mirrors the facilitation guide that accompanies the film and supplies the tools you need to facilitate a discussion about diversity in hiring at colleges and universities. It also provides bonus material, including handouts for your audience and a sample PowerPoint presentation.

Web site Link: [Link to Resource](#)

More: The film is not available directly on the website. Users can order a free copy or view a preview on the website.

Resources: The website contains information to be used in conjunction with the film, including:

- Standard & Shortened Presentations
- Key Concepts
- Handouts
- Research on Bias
- Facilitation Guidelines
- Best Practices for Search Committees

Site Access Details: This is a publicly accessible site.

Partners and Funding: The film and its facilitation guide were produced by the ADVANCE Center for Institutional Change at the University of Washington.

Contact Name: Coleen Carrigan

Contact E-mail: coleenc@uw.edu

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Hiring Practices](#)

Intersectionality as a Framework for Understanding Diverse Young Women's Interest in Engineering

Resource Title: Intersectionality as a Framework for Understanding Diverse Young Women's Interest in Engineering

Description/Annotation: This 14-page paper from the 2012 WEPAN National Conference introduces the Female Recruits Explore Engineering (FREE) program, developed and implemented to increase high school, mostly underrepresented minority girls' interest in engineering. According to the paper, the FREE project provided researchers an opportunity to investigate how dimensions of race, ethnicity, economic resources (social class) and locality intersect with gender in the lives of young women who might become engineers. The findings underscore the belief that young women, especially those from under-served groups, have the capacity to choose non-traditional STEM career fields, but that ongoing, long term relationships and support are crucial. The full paper is available in PDF format.

Author Last Name: Bruning

Author First Name: Monica

Additional Author: Bystydzienski

: Jill

Additional Author: Eisenhart

: Margaret

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-14

Source: WEPAN

Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career
Interest/Awareness

Intersections Between Science & Engineering Education and Recruitment of Female and Native American Students

Resource Title: Intersections Between Science & Engineering Education and
Recruitment of Female and Native American Students

Description/Annotation: This paper examines the STEP UP (Summer Technology and
Engineering Program and University Preview) camp for high
school age female students. Authors discuss the successful
dynamics used and pedagogical approach toward nurturing the
female participants' interests in engineering and science through
hands-on activities, personal and team dynamics, faculty and
current engineering/science student instruction and industry
participation. The creation of personal connection to the
Multicultural Engineering Program and the relevance of this for
female recruitment and retention towards STEM disciplines will
also be discussed. In addition, practical information regarding the
scoping, development, trial and error, and full implementation
will be discussed. Authors also address possibilities for the future
of recruitment and retention of female engineering and science
students at Northern Arizona University and the sustainability of
the existing program.

Author Last Name: Swimmer

Author First Name: Fonda

Additional Author: Jarratt-Ziemski

: Karen

Publication Date: 2007

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Link Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Educational Factors » Pedagogy & Instruction Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Intervention models towards more diversity in engineering education

Resource Title:	Intervention models towards more diversity in engineering education
Description/Annotation:	This paper draws on current studies on good practice in engineering education in Europe to address an overall need for more diversity in engineering education. Based on empirical data, two major trends are discussed: first, the role of interdisciplinary courses attracting not only more women but generally more 'non-typical' engineering students. Second, women only engineering degree courses as an apparently paradox intervention to reach gender equality in the long run by winning more female students are analyzed.
Author Last Name:	Freitag
Author First Name:	D.
Additional Author:	Thaler
:	A.
Publisher:	IEEE
Publication Date:	2011, Apr
Page Numbers:	518-522
Publication Title:	Global Engineering Education Conference, 2011
Source:	IEEE
Source Type:	Abstract/Available for Sale

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Academic & Social Climate Cultural Influences Educational Factors Cultural Influences » Gender Diversity

Interventions That Affect Gender Bias in Hiring: A Systematic Review

Resource Title:	Interventions That Affect Gender Bias in Hiring: A Systematic Review
Description/Annotation:	Systematically reviews experimental evidence for interventions mitigating gender bias in employment. Unconscious endorsement of gender stereotypes can undermine academic medicine's commitment to gender equity.
Author Last Name:	Isaac
Author First Name:	Carol
Additional Author:	Lee
:	Barbara
Additional Author:	Carnes
:	Molly
Publication Date:	2009
Page Numbers:	1440-1446
Publication Title:	Academic Medicine
Volume:	84
Issue:	1
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Stereotype Threat](#)

Interview with Lecia Barker: Diversity, Bias, and IT Education

Resource Title:	Interview with Lecia Barker: Diversity, Bias, and IT Education
Description/Annotation:	This 52-minute audio clip features an interview of Dr. Lecia Barker, Senior Research Scientist for the National Center for Women & Information Technology (NCWIT). Dr. Barker shares her insights into unconscious bias, attracting diversity into computing, maximizing educational environments and

technologies and much more. The interview is available as an MP3 file.

Author Last Name: Barker
Author First Name: Lecia
Publisher: Stephen Ibaraki
Source: CIPS Connections
Source Type: Audio

Resource Type Categories: [Interviews](#) [Webinar/Video](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Stereotype Threat](#)

Interview with Lucy Sanders: Advancing Technical Women

Resource Title: Interview with Lucy Sanders: Advancing Technical Women
Description/Annotation: This 17-minute video presents an interview of Lucy Sanders, CEO and co-founder of the National Center for Women & Information Technology (NCWIT). In the interview, Sanders speaks about the need for and mission of NCWIT to increase the participation of girls and women in computing and IT.
Author Last Name: Sanders
Author First Name: Lucy
Publisher: EZebis
Publication Date: 2010
Source: NCWIT
Source Type: Video

Resource Type Categories: [Interviews](#) [Webinar/Video](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors » Retention](#) [Career Factors » Retention](#)

Introducing 'Stickiness' as a Versatile Metric of Engineering Persistence

Resource Title: Introducing 'Stickiness' as a Versatile Metric of Engineering Persistence

Description/Annotation: A new metric, “stickiness,” is proposed, tracking longitudinally all students who have contact with a discipline to determine the likelihood those students will “stick” to that discipline and graduate in it. This metric has the versatility to be relevant for students making contact with engineering through a variety of pathways. Stickiness exhibits significant disciplinary differentiation. Whereas earlier work has shown that Industrial Engineering is the most successful at attracting and retaining students, the disciplinary distribution of stickiness shows that Industrial Engineering is exceptional. Disaggregating by race/ethnicity and gender, much larger variations in stickiness are observed (as much as 48 percent), and positive and negative outcomes are identified where students in particular subpopulations are more or less likely to stick than expected. Aggregated by race/ethnicity and gender, the stickiness of transfer students ranks the disciplines in the same order as the stickiness of first-time-in-college students, but transfer stickiness exhibits less disciplinary variation and transfer students in all disciplines exhibit higher stickiness than first-time-in-college students. Funded by NSF GSE under award #0734085.

Author Last Name: Ohland

Author First Name: Matthew W.

Additional Author: Orr

: Marisa K.

Additional Author: Layton

: Richard A.

Additional Author: Lord

: Susan M.

Additional Author: Long

: Russell A.

Publication Date: 2012

Publication Title: Proceedings of the 2012 Frontiers in Education Conference

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Introducing engineering to young women through nontraditional products

Resource Title: Introducing engineering to young women through nontraditional products

Description/Annotation: This paper discusses ways in which faculty members at Mass Bay Community College (MBCC) and the University of Maine (UM) are using nontraditional products to attract and retain women students. At MBCC young women exploring engineering careers create jewelry designs using three-dimensional Computer Aided Design and Drafting (3D-CADD) software. At UM girls introduced to 3D-CADD software are encouraged to imagine objects to model. The UM Women in the Curriculum (WIC) program has awarded grants for mentoring girls at a summer 3D-CADD camp and for a study of the feasibility of developing a weave room in the School of Engineering Technology.

Author Last Name: Horton

Author First Name: Karen J.

Additional Author: Planchard

: Marie P.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: FIE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Introduction to Prominent Women in Chemical Engineering: An Outreach Activity

Resource Title: Introduction to Prominent Women in Chemical Engineering: An Outreach Activity

Description/Annotation: This paper describes an activity the author has carried out with 80 high school chemistry teachers to enable them to overcome their stereotypical perceptions of engineers and engineering. The activity introduced them to prominent women in chemical engineering, and raised their awareness of these female engineers' contributions to engineering and society. The results showed that the activity was effective in dispelling the teachers' misperceptions of engineers and engineering. Teachers and professors can use the examples of these prominent female chemical engineers as role models to inspire their female students who are aspiring to become engineers.

Author Last Name: Hoh

Author First Name: Yin Kiong

Publication Date: 2007

Page Numbers: 377-390

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Mentoring](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Introduction to Science and Technology Careers and Leadership Workshops for Women and Girls

Resource Title: Introduction to Science and Technology Careers and Leadership Workshops for Women and Girls

Description/Annotation: This paper discusses two workshops developed for women and girls to foster an interest in career development, higher education, and careers in science and technology. Participants in the girls' workshop were from the local area junior high school classes and

one of the goals of the workshops was to help women and girls develop self-confidence, self-awareness, and establish habits that would encourage them to pursue their goals or career objectives.

Author Last Name: Ratcliff
Author First Name: Margaret
Additional Author: Steuver
:
Publication Date: 2006
Publication Title: ASEE Annual Conference
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Introduction: Women, Science Education, and Feminist Theory

Resource Title: Introduction: Women, Science Education, and Feminist Theory
Description/Annotation: This issue of "Science & Education" addresses a most important question for science education, namely: are women different? The issues addresses the concern to improve science via changes in science education and this concern depends first on the demonstrated conclusions that women have a distinct standpoint on nature, that women are marginalized, and that women learn best about nature in a distinctive and gendered way.

Author Last Name: Pinnick
Author First Name: Cassandra L.
Publication Date: 2008, Nov
Page Numbers: 1053-1054
Publication Title: Science & Education
Volume: 17
Issue: 10

Source: SpringerLink

Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Cultural Influences Educational
Factors Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study
Choices

Inventing Women: Science, Technology, and Gender

Resource Title:	Inventing Women: Science, Technology, and Gender
Description/Annotation:	Diverse collection of accessible essays discussing how gender relates to science and technology.
Author Last Name:	Kirkup
Author First Name:	Gill
Additional Author:	Smith Keller
:	Laurie S.
Publisher:	Wiley-Blackwell
Publication Date:	1992
Page Numbers:	342
Source:	Amazon
Source Type:	Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences » Gender Diversity](#)

Investigaming

Resource Title:	Investigaming
Description/Annotation:	This is a gateway to research on gender, gaming, and computing for the game industry, game design educators and students, and academic game researchers.
Web site Link:	Link to Resource
More:	Designing games to appeal to female and male players may seem elusive, but gender and gaming has been and continues to be the focus of hundreds of research studies.
Resources:	Resources descriptions may include: <ul style="list-style-type: none">• citation with link to access resource• synopsis• keywords• abstract• research hilights

- implications for game industry

Site Access Details: This site is publicly accessible.

Partners and Funding: Michigan State University

Contact Name: Carrie Heeter

Contact E-mail: heeter@msu.edu

Last Update Date: Feb 17, 2010

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Investigating the Gender Component: Integrated Report

Resource Title: Investigating the Gender Component: Integrated Report

Description/Annotation: A report from an NSF project (GSE-RES 0522767) that integrates results from data collected from faculty and students in 9 colleges or schools of engineering. Findings indicate that both individual qualities and elements of the in- and out-of-class experience of undergraduates proved significant in students' short- and long-term interest in engineering. The report highlights in- and out-of-class activities that can offset some of the negative impacts for both men and women of the low numbers and proportion of women enrolled in undergraduate majors in engineering at most institutions.

Author Last Name: Creamer

Author First Name: Elizabeth G.

Additional Author: Amelink

: Catherine T.

Additional Author: Meszaros

: Peggy S.

Additional Author: Burger

: Carol J.

Publisher: Virginia Tech

Publication Date: 2009, Jun

Page Numbers: 30

Source: Amelink (Posted with permission)

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors Educational Factors Educational Factors » Formal Academic Preparation Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Investigating the relations of ethnicity to female students' perceptions and intention to major in engineering using social cognitive theory

Resource Title: Investigating the relations of ethnicity to female students' perceptions and intention to major in engineering using social cognitive theory

Description/Annotation: This paper describes the first phase of a mixed-method study employing a social cognitive theoretical framework that emphasizes the interplay of personal factors, environment and behavior. The purpose of the study was to investigate the relations of ethnicity to female students' perceptions and intention to major in engineering. An ethnically diverse sample of female engineering undergraduates at an urban research university completed an online survey, which was developed by adapting relevant measures from published instruments in the educational psychology and engineering education literature. Results indicated a significant difference in the way participants from different ethnic groups perceived the field of engineering.

Author Last Name: Trenor

Author First Name: Martin J.

Additional Author: Yu
: S.L.

Additional Author: Sha
: Ting-Ling

Additional Author: Zerda
: K.S.

Publication Date: 2007

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Cultural Influences Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Investigation of Pre-service Science Teachers' Opinions about Laboratory Practices in Relation to Gender, Grade Level, Their High School Laboratory Experiences and whether They Attend Day-Time Classes or Night-Time Classes

Resource Title: Investigation of Pre-service Science Teachers' Opinions about Laboratory Practices in Relation to Gender, Grade Level, Their High School Laboratory Experiences and whether They Attend Day-Time Classes or Night-Time Classes

Description/Annotation: The article presents a study that determines the students' opinions about laboratory practices and the relationships between the opinions and variables during their high school education in Turkey. It states that a survey was conducted involving 321 high school students at Muğla University wherein a one way analysis of variance (ANOVA) was carried out to determine the variations among the opinions. Results revealed the positive opinions of pre-service teachers about such practices.

Author Last Name: Can
Author First Name: Sendill
Publication Date: 2012, Mar
Page Numbers: 13
Publication Title: Journal of Tur
Volume: 9
Issue: 1
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Educational Factors](#) » [Pedagogy & Instruction](#)

Investigation of the Underrepresentation of Women in the G. R. Brown Teaching Awards at Rice University

Resource Title: Investigation of the Underrepresentation of Women in the G. R. Brown Teaching Awards at Rice University

Description/Annotation: This paper investigates the reasons for the underrepresentation of women faculty, particularly the women faculty in science and engineering, in the most prestigious teaching awards at Rice University. Authors explored the process for administration of the G. R. Brown Teaching Awards. Only tenure-track and tenured faculty are eligible for this award and seven total awards are given each year.

Author Last Name: Law

Author First Name: Charlie

Additional Author: Younger

: David

Additional Author: Saterbak

: Ann

Publication Date: 2009

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Stereotype Threat](#)

Investigative Cases and Student Outcomes in an Upper-Division Cell and Molecular Biology Laboratory at a Minority-Serving Institution

Resource Title: Investigative Cases and Student Outcomes in an Upper-Division Cell and Molecular Biology Laboratory at a Minority-Serving Institution

Description/Annotation: Active-learning strategies are increasingly being integrated into college-level science courses to make material more accessible to

all students and to improve learning outcomes. One active-learning pedagogy, case-based learning (CBL), was developed as a way to both enhance engagement in the material and to accommodate diverse learning styles. Yet, adoption of CBL approaches in undergraduate biology courses has been piecemeal, in part because of the perceived investment of time required. Furthermore, few CBL lesson plans have been developed specifically for upper-division laboratory courses. Here, we describe four cases that we developed and implemented for a senior cell and molecular biology laboratory course at San Francisco State University, a minority-serving institution. To evaluate the effectiveness of these modules, investigators used both written and verbal assessments to gauge learning outcomes and attitudinal responses of students over two semesters. Students responded positively to the new approach and seemed to meet the learning goals for the course. Most said they would take a course using CBL again. These case modules are readily adaptable to a variety of classroom settings. Funded by NSF GSE under award #0337949.

Author Last Name: Knight
Author First Name: J.D.
Additional Author: Fulop
: R.M.
Additional Author: Tanner
: K.D.
Publication Date: 2008
Page Numbers: 382-393
Publication Title: CBE-Life Sciences Education
Volume: 7
Issue: 4
Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Investing in Human Potential: Science and Engineering at the Crossroads

Resource Title: Investing in Human Potential: Science and Engineering at the Crossroads

Description/Annotation: This book looks at the efforts made by colleges and universities to encourage participation in undergraduate programs in math, science, and engineering from women, minorities, and the physically disabled . A 5-level model was developed based on case studies and project descriptions at these colleges and universities, with the first level representing isolated programs and efforts to encourage involvement of women and minorities, and the fifth level representing true structural reform with dedicated support. In this study, no schools were found to have level five participation, and most efforts by colleges and universities were at the lower levels, reflecting programs that were not tied to each other and supported by soft money. Most programs are focused on helping the students adjust to an existing environment instead of truly advocating structural change to programs. The book supports the theory that these efforts are not enough to support the mandates to actually change the history of poor participation in these fields from women, non-Asian minorities, and the disabled. Only when the environment is altered to fit these students' needs versus making them fit the environment will change occur.

Author Last Name: Matyas (ed.)

Author First Name: Marsha L.

Additional Author: Malcolm (ed.)

: Shirley

Publisher: American Association for the Advancement of Science

Publisher Location: Washington, D.C.

Publication Date: 1991

Source: AAAS

Database Name: Worldcat

Source Type: Library Catalog, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

In-Depth Interviews With Women Faculty & Staff in STEM at UW-Madison

Resource Title:	In-Depth Interviews With Women Faculty & Staff in STEM at UW-Madison
Description/Annotation:	Funded with an NSF ADVANCE grant, we performed in-depth interviews with 32 women faculty, conducted at the beginning of the grant period, to provide a baseline from which program evaluation will emanate. Follow-up interviews with the same women occurred in the last year of the grant. We interviewed 26 women faculty and 15 women academic staff in the sciences and engineering. Respondents were selected using a stratified random sample of both faculty and staff, to ensure representation across schools and colleges, ranks, time at the institution, and divisional affiliation.
Author Last Name:	WISELI
Publisher:	University of Wisconsin-Madison
Publisher Location:	Madison, WI
Publication Date:	2002, 2006
Source:	WISELI
Source Type:	Website - study description, interview protocols, publications list

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Iridescent

Resource Title:	Iridescent
Description/Annotation:	Iridescent is a science-education nonprofit that helps engineers, scientists and high-tech professionals bring cutting edge science, technology and engineering to high school girls, underprivileged minority children, and their families. Iridescent hopes to improve students' STEM engagement through hands-on, interactive lessons, powerful mentors, and by enlisting strong parental involvement.
Web site Link:	Link to Resource

More: Iridescent runs several programs to address the STEM achievement gap:

1. [Engineers as Teachers](#) - a training program that helps engineers and scientists share their passion and knowledge with children.
2. Family Science Courses - a set of 4-6 inquiry-based sessions in which K-8 children do Physics-based experiments alongside their parents.
3. [Technovation Challenge](#) - a set of 18 technology and entrepreneurship sessions for high-school girls in which they learn how to develop mobile phone applications and pitch the idea to a panel of Venture Capitalists.

Resources: The Iridescent website offers a wealth of information about the organization's mission and programs, including:

- Impact & Program Statistics
- [Research](#)
- Volunteer Information
- Curriculum
- Phone Apps
- [Publications](#)
- In the News

Site Access Details: This is a publicly accessible site.

Partners and Funding: Iridescent is a non-profit organization.

Last Update Date: July 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Is Single Gender Schooling Viable in the Public Sector? Lessons from Californias Pilot Program. Final Report.

Resource Title: Is Single Gender Schooling Viable in the Public Sector? Lessons from Californias Pilot Program. Final Report.

Description/Annotation: In this 83-page report discusses a longitudinal study of a California experiment in single-gender education. The report presents mixed results from observations and interviews with educators, policymakers, and students. The report presents a mixed picture of single-gender education, with some benefits and

some drawbacks from multiple perspectives and vantage points. Ultimately, the authors suggest that single-gender, public education is not sustainable in California under the current policy framework.

Author Last Name: Datnow
Author First Name: Amanda
Additional Author: Hubbard
:
Additional Author: Woody
:
Publisher: Ontario Institute for Studies in Education
Publisher Location: Toronto, Ontario
Publication Date: 2001
Page Numbers: 83
Publication Title: ERIC Document Reproduction Service No. ED471051
Source: ERIC
Source Type: Full Text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Is the Academic Climate Chilly? The Views of Women Academic Chemists

Resource Title: Is the Academic Climate Chilly? The Views of Women Academic Chemists

Description/Annotation: The statistical picture of the gender composition of chemistry as reported in national data indicates that women are underrepresented in academe in comparison to their representation in the field as a whole. This article presents data on the perceptions and views of a broad cross-section of women in academic chemistry departments and provides some clues as to why this underrepresentation may occur. In general, the data support literature that has posited a work climate that is problematic and less than welcoming for women. The results

indicate that a large proportion of the women surveyed report that they receive little professional support through mentoring, that they perceive that there are strong differences in the resources and privileges awarded to men and women faculty, and that gender-related issues affect their department's ability to recruit and hire or to promote women's career progress after they are hired. Finally, the chemistry women in this study were significantly less likely than those in a national sample of academics to report being satisfied with their jobs and were significantly less likely than those in the national sample to agree that women and minorities are treated fairly. Funded by NSF GSE under award #0909344.

Author Last Name: Greene
Author First Name: Jessica
Additional Author: Stockard
:
Additional Author: Lewis
:
Additional Author: Richmond
:
Publication Date: 2010
Page Numbers: 381-385
Publication Title: Journal of Chemical Education
Volume: 87
Issue: 4
Source: ACS
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career Factors](#) » [Organizational Culture](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

IsisHawaii: The Power of One Plus One for Bringing Girls and Young Women Into the Science and Engineering Pipeline

Resource Title: IsisHawaii: The Power of One Plus One for Bringing Girls and Young Women Into the Science and Engineering Pipeline

Description/Annotation: In 2002, isisHawaii launched the first Hawaii-based online mentoring program to help local women network with other women in various professional fields. This paper will discuss how isisHawaii and the Women in Technology project (WIT) effectively built upon available eMentoring models, including presidential award-winning MentorNet, to develop community-based, culturally appropriate and cost-effective programming that would have positive career implications for Hawaii's girls and women.

Author Last Name: Fujioka

Author First Name: Lynn

Additional Author: Hom

: Sheryl

Additional Author: Wilkins

: Leslie

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Issues in Science and Technology (Issues)

Resource Title: Issues in Science and Technology (Issues)

Description/Annotation: Issues is the quarterly policy journal of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and the University of Texas at Dallas. The journal contains articles that analyze current topics in science, technology, and health policy and recommend actions by government, industry, academia, and individuals to solve pressing problems. The journal is available online and in print.

Author Last Name: Finneran

Author First Name: Kevin (ed.)
Publisher: The University of Texas at Dallas
Publisher Location: Richardson, TX
Source: Issues
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Educational Factors Individual Beliefs and Behaviors Career Factors](#) » [Organizational Culture Career Factors](#) » [Professional Development Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Issues of doing gender and doing technology - Music as an innovative theme for technology education

Resource Title: Issues of doing gender and doing technology - Music as an innovative theme for technology education

Description/Annotation: This paper presents the concept and results of the research project 'Engineer Your Sound!' (2008–2009). It aimed at exploring whether interdisciplinary, innovative teaching/learning settings in the fields of technology and digital media can be used to give pupils the opportunities to experiment and discover their technical potential, skills, interests and talents and if music technology could offer such an appealing context. The paper explains how technology and why gender need to be addressed when planning to raise young people's interest in technology but questions if interest in technology is mainly influenced by gender.

Author Last Name: Thaler
Author First Name: A.
Additional Author: Zorn
:
I.
Publication Date: 2010
Page Numbers: 445-454
Publication Title: European Journal of Engineering Education
Volume: 35
Issue: 3

Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Issues of Equity: A Synthesis of Literature Relevant to Science, Engineering, and Mathematics Classrooms

Resource Title: Issues of Equity: A Synthesis of Literature Relevant to Science, Engineering, and Mathematics Classrooms

Description/Annotation: This paper presents a conceptual analysis of equity research from the perspective of instructional design and teaching in science, engineering, and mathematics classrooms. In doing so, the paper highlights key studies in equity research that are relevant to these specific content areas and more equitable teaching practices. Two lines of research emerge from the conceptual analysis: one reflecting a cultural differences orientation and the other reflecting a theme of resistance. Both make significant contributions in understanding the dynamics of equity in classrooms.

Author Last Name: Hodge
Author First Name: Lynn Liao
Publication Date: 2006
Page Numbers: 233-252
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 2-3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Issues of Gender and Personal Life for Women in Academic Biology

Resource Title:	Issues of Gender and Personal Life for Women in Academic Biology
Description/Annotation:	A 21-page article that examines issues faced by women during their training and careers in academic biology.
Author Last Name:	Scholer
Author First Name:	Anne-Marie
Publication Date:	1998
Page Numbers:	69-89
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	4
Issue:	1
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

ISU ADVANCE –Transformation Across the University Hierarchy to Enhance Recruitment, Retention and Advancement of Women Faculty in Engineering

Resource Title:	ISU ADVANCE –Transformation Across the University Hierarchy to Enhance Recruitment, Retention and Advancement of Women Faculty in Engineering
Description/Annotation:	The goal of the ISU ADVANCE research program is to investigate the effectiveness of a multilevel collaborative effort to effect institutional transformation that results in the full participation of women faculty in STEM fields in the university. This paper focuses on transforming departmental cultures (views, attitudes, norms and shared beliefs), practices (what people say and do), and structures (physical and social arrangements), as well as university policies, through participation of individuals at all

levels of the university. Funded by NSF ADVANCE under award #0600399.

Author Last Name: Constant
Author First Name: Kristen P.
Publication Date: 2011
Publication Title: 2011 ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Career Factors Publications by Funder » NSF-HRD-ADVANCE Career Factors » Organizational Culture Career Factors » Professional Development Publications by Funder Career Factors » Retention](#)

ISU ADVANCE: Sustaining and Institutionalizing Efforts to Enhance Recruitment, Retention, and Advancement of Women Faculty in Engineering

Resource Title: ISU ADVANCE: Sustaining and Institutionalizing Efforts to Enhance Recruitment, Retention, and Advancement of Women Faculty in Engineering

Description/Annotation: This paper discusses findings based on ISU ADVANCE research revealing key areas of strength that will be the focus of institutionalization and sustainability beyond Year 5 of the program. Areas of strength include the role of the college Equity Advisor, the use of Institutional Research data and surveys as a dashboard for progress, and the process of departmental collaborative transformation.

Author Last Name: Constant
Author First Name: Kristen P.
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

IT Business Advocacy Roundtable Discussion

Resource Title: IT Business Advocacy Roundtable Discussion

Description/Annotation: This 2-hour video features the candid discussion of pressing issues in the information technology sector which took place at the June 2008 IT Business Advocacy Roundtable at the Woodrow Wilson Center. Key topics discussed included the lack of participation in the IT workforce among women and minorities, the ebbing of public interest in IT professions, the decline in government support for IT research, and the inadequate coverage of computer science in the K-12 curriculum.

Author Last Name: Sanders

Author First Name: Lucy

Additional Author: Harsha
:
Peter

Additional Author: Wilson
:
Cameron

Publisher: Woodrow Wilson International Center for Scholars

Publisher Location: Washington, DC

Publication Date: 2008

Source: Woodrow Wilson International Center for Scholars

Source Type: Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

It's Different for Girls: How can parents support the take-up of A level physics by girls?

Resource Title: It's Different for Girls: How can parents support the take-up of A level physics by girls?

Description/Annotation: This 5-page briefing sheet from the Institute of Physics (IOP) offers ways that parents can contribute to creating an environment which encourages girls and young women to study physics and pursue physics careers. The full leaflet is available in PDF format.

Author Last Name: IOP

Publisher: IOP

Publisher Location: London, UK

Page Numbers: 1-5

Source: IOP

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Cultural Influences Cultural Influences](#) » [Family Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

It's Different for Girls: The influence of schools

Resource Title: It's Different for Girls: The influence of schools

Description/Annotation: This 22-page report from the Institute of Physics (IOP) analyzes data from the UK's National Pupil Database and looks at the progression of students taking A-level physics in 2011 from different types of school. The report indicates that the variation in the experience of physics between school types is not gender-neutral: it's different for girls. Girls were almost two and a half times more likely to go on to do A-level physics if they came from a girls' school rather than a co-ed school. The full report is available in PDF format.

Author Last Name: IOP

Publisher: IOP

Publisher Location: London, UK

Publication Date: 2012, Oct

Page Numbers: 1-22

Source: IOP

Source Type: Full Text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation](#)

Japanese Women in Science and Technology

Resource Title: Japanese Women in Science and Technology

Description/Annotation: Women make up about ten percent of the scientists and engineers in Japan. The aim of this essay is to make clear why, even in the year 2001, there are so few women in these disciplines. The author suggests that the socio-economic structure and gender ideology of Japan since the Second World War is responsible for this shortage which is often erroneously attributed to the cultural traditions of feudal Japan.

Author Last Name: Kuwahara

Author First Name: Motoko

Publication Date: 2001

Page Numbers: 203-216

Publication Title: Minerva

Volume: 39

Issue: 2

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports » Journal Articles](#) Topical Categories: [Career Factors Career Factors » Organizational Culture Career Factors » Professional Development Career Factors » Retention](#)

Jennifer Fever in Academic Medicine

Resource Title: Jennifer Fever in Academic Medicine

Description/Annotation: Editorial: Generational differences in gender bias in academic medicine.

Author Last Name: Carnes
Author First Name: Molly
Publication Date: 2007
Page Numbers: 299-301
Publication Title: Journal of Women's Health
Volume: 16
Issue: 3
Source: Mary Ann Liebert, Inc. Publishers
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

Jobs for the boys: Research report of Set to Lead

Resource Title: Jobs for the boys: Research report of Set to Lead
Description/Annotation: This report is an overview of the Set to Lead project which explores differences in male and female career intentions of engineering and technology undergraduates in the UK. The report also includes secondary analysis of Higher Education Statistics Agency (HESA) Destinations of Leavers from Higher Education (DLHE) data. The research confirms previous work that women are less likely than men to be working in engineering and technology roles six months after graduating from undergraduate engineering and technology courses even though women in the final year of undergraduate engineering courses are as likely as men to express the intention to work in engineering and technology roles. The full report is available in PDF format.

Author Last Name: McWhinnie
Author First Name: Sean
Additional Author: Peters
:
Publisher: UCL
Publisher Location: UK
Publication Date: 2012

Page Numbers: 1-11
Source: Katalytik
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Career Factors](#) » [Employment Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Joining WiSE Conversations: Strategies & Successes from CWSE-ON 2003-2011

Resource Title: Joining WiSE Conversations: Strategies & Successes from CWSE-ON 2003-2011

Description/Annotation: "Joining WiSE Conversations: Strategies and Successes from CWSE-ON" is a record of initiatives undertaken by Professor Valerie Davidson and her team as part of the Chair for Women in Science and Engineering - Ontario (CWSE-ON) program. The electronic version includes hyperlinks to collaborators and resources.

Author Last Name: Davidson

Author First Name: Valerie

Additional Author: Holmes & Associates

: Ann

Publication Date: 2011

Source Type: Digital repository, University of Guelph, Guelph, ON Canada

Resource Type Categories: [Book Digital Library/Collection](#) Topical Categories: [Career Factors Diversity Orgs & Pgms for Women and Girls](#)[Educational Factors](#)

Journal of Women and Minorities in Science and Engineering

Resource Title: Journal of Women and Minorities in Science and Engineering

Description/Annotation: Designed as a unique and much-needed resource for educators, managers, and policymakers, the Journal of Women and Minorities in Science and Engineering publishes original, peer-reviewed papers that report innovative ideas and programs for classroom teachers, scientific studies, and formulation of concepts related to the education, recruitment, and retention of under-represented groups in science and engineering. Discipline-specific issues related to women and minorities are consolidated to address the entire educational environment from K through post-graduate and on to continuing education.

Web site Link: [Link to Resource](#)

More: Designed as a unique and much-needed resource for educators, managers, and policymakers, the Journal of Women and Minorities in Science and Engineering publishes original, peer-reviewed papers that report innovative ideas and programs for classroom teachers, scientific studies, and formulation of concepts related to the education, recruitment, and retention of under-represented groups in science and engineering. Discipline-specific issues related to women and minorities are consolidated to address the entire educational environment from K through post-graduate and on to continuing education.

Site Access Details: Abstract; Journal and Articles Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Journeys of Women in Science and Engineering: No Universal Constants

Resource Title: Journeys of Women in Science and Engineering: No Universal Constants

Description/Annotation: Candidly profiles the careers of 88 women engineers and scientists through their own voices. Includes profiles of those with academic, industry and public service careers. Inspirational for anyone interested in STEM careers and looking for role models.

Author Last Name: Ambrose

Author First Name: Susan A.

Additional Author: Dunkle

: Kristin L.
Additional Author: Lazarus
: Barbara B
Additional Author: Nair
: Indira
Additional Author: Harkus
: Deborah A.
Publisher: Temple University Press
Publisher Location: Philadelphia, PA
Publication Date: 1997
Page Numbers: 488
Publication Title: Journeys of Women in Science and Engineering
Source: Google Book Search
Source Type: Summary, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Jump for the Sun II: Can a Monthly Program Change Girls' and Women's Attitudes About STEM?

Resource Title: Jump for the Sun II: Can a Monthly Program Change Girls' and Women's Attitudes About STEM?

Description/Annotation: This paper discusses the Environmental Institute of the Jump for the Sun II program, designed to change middle school girls' and teachers' attitudes about doing science and who does science and to increase interest in science, technology, engineering, and mathematics. The institute consisted of an intensive, 2-week summer congress followed by monthly sessions during the academic year. Female-friendly learning environments were created for middle school students and in-service educators, focusing on topics such as life expectancies, solid waste production, transportation gridlock, beach erosion, and biodiversity.

Author Last Name: Crowe
Author First Name: Mary
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Junior Engineering Technical Society (JETS) - Explore Engineering

Resource Title: Junior Engineering Technical Society (JETS) - Explore Engineering

Description/Annotation: Resources that help high school students discover their potential for engineering. Take the first step: Explore Engineering!

Web site Link: [Link to Resource](#)

Logo:

More: JETS provides programs and resources that let students explore, assess, and experience engineering first-hand. From exciting student competitions to assessment tools and career exploration materials, JETS provides multiple pathways for students to discover their potential for engineering.

Students in JETS programs are presented the unique chance to: understand how engineers make a difference through online and print resources ([Explore](#)); learn how their own talents and skills align to engineering majors and occupations ([Assess](#)); and participate in exciting real-world based engineering competitions ([Experience](#)).

Take the first step. ..Explore Engineering!

Resources:

- ***The Pre-Engineering Times***: A free, monthly career exploration [e-newsletter](#) highlighting exciting, real-world experiences and people in engineering. [Sign up!](#)
- **Explore magazine**: A career exploration [publication](#) filled with inspiring messages, personal accounts from young engineers, and snapshots of exciting careers across multiple industries to help students discover engineering.
- **Explore online**: A continuously updated career exploration website with information about [What Engineers Do](#), [Real Engineers](#), and how to [Make it Happen](#) in engineering.
- **JETS Store**: An [online store](#) filled with career resources (books, brochures and multi-media) and JETS merchandise.

Site Access Details: This site is publicly accessible.

Partners and Funding: S.D. Bechtel Jr., Foundation Shell Rockwell Collins Motorola Innovation Generation Grant United Engineering Foundation (UEF) Over 130 College & Universities Various Professional Engineering Societies Visit site for complete listing

Contact Name: Daneielle Alvarez

Contact E-mail: dalvarez@jets.org

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors » Formal Academic Preparation Individual Beliefs and Behaviors](#) [Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

K-12 and University Collaboration: A Vehicle to Improve Curriculum and Female Enrollment in Engineering and Technology

Resource Title: K-12 and University Collaboration: A Vehicle to Improve Curriculum and Female Enrollment in Engineering and Technology

Description/Annotation: This paper describes the collaboration of Amherst Regional High School (ARHS) with faculty at the University of Massachusetts and Hampshire College in addressing issues impinging the

success of engineering and technology curricula. More specifically, this collaboration has focused on: reviewing and enhancing high school teacher's core knowledge of engineering design, the curricular changes made based on this study/research, and research of gender equity issues in engineering and technology curricula. Plans to recruit and retain female students in the technology/engineering area at both secondary and university levels are described. A structure that provides for on-going collaboration between the local high school and area colleges is also provided.

Author Last Name: Gralinski
Author First Name: Thomas
Additional Author: Terpenny
:
: Janis P.
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Keeping Women in the Science Pipeline

Resource Title: Keeping Women in the Science Pipeline
Description/Annotation: This 16-page research paper addresses the effect of family formation on both when and why women and men drop or opt out of the academic science career path. It offers an extensive examination of the experiences of researchers as well as the role that institutions of higher education and federal granting agencies play in regard to the leaky pipeline in the sciences. The full paper is available in PDF format.
Author Last Name: Mason
Author First Name: Mary Ann
Additional Author: Goulden
:
: Marc

Additional Author: Frasch
:
Publisher: Alfred P. Sloan Foundation
Publisher Location: Washington, DC
Publication Date: 2010, Nov
Page Numbers: 1-16
Source: Focus on Workplace Flexibility
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

Kettering University's Bioengineering Summer Program for High School Women

Resource Title: Kettering University's Bioengineering Summer Program for High School Women

Description/Annotation: This paper discusses a summer program at Kettering University that introduces high school women to bioengineering and the applications for Biomechanics, Ergonomics, Biochemistry, and Automotive Crash Safety. Kettering's Lives Improve Through Engineering, or LITE, is a two week, residential, summer program for young women entering their senior year of high school. A post-program assessment of the LITE participants indicates that after attending the two-week program, they are more likely to pursue degrees in STEM subjects. Data also indicates that the mentors, after participating in the program, are more confident of their mentoring skills and are more likely to seek out mentoring opportunities in the future.

Author Last Name: Brelin-Fornari

Author First Name: Homsher

Additional Author: Betsy

: Sullivan

Additional Author: Laura

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: asee

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Key Barriers for Academic Institutions Seeking to Retain Female Scientists and Engineers: Family-Unfriendly Policies, Low Numbers, Stereotypes, and Harassment

Resource Title: Key Barriers for Academic Institutions Seeking to Retain Female Scientists and Engineers: Family-Unfriendly Policies, Low Numbers, Stereotypes, and Harassment

Description/Annotation: A 30-page paper that reports a study of barriers reported by recipients of NSF grants aimed at increasing gender equity in STEM. Lists a number of national policy measures to increase gender equity in the sciences (ADVANCE, Program for Gender Equity, Career Advancement Awards, etc.), briefly relates some statistics about the status of women in science and technology, then contains a more extended discussion of some of the barriers reported by recipients of the Professional Opportunities for Women in Research and Education NSF awards. Issues reported include work/family balance, time management, lack of women, and situations of open discrimination, among others. The final section contains specific discussion and policy considerations relating to several of the concerns voiced by the POWRE recipients and other women in STEM.

Author Last Name: Rosser

Author First Name: Sue V.

Additional Author: O'Neil Lane

: Eliesh

Publication Date: 2002

Page Numbers: 161-189

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Source: Montana State University
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Key Concepts in Science Book Set

Resource Title: Key Concepts in Science Book Set
Description/Annotation: Key Concepts in Science is a 36-book series that covers the "Big Ideas" in science. Developed by the science education experts at Sally Ride Science, the books and teacher guides help spark students' natural curiosity while building science literacy. The Book Set is available in three fields: Earth Science, Life Science, and Physical Science.
Author Last Name: Sally Ride Science
Publisher: Sally Ride Science
Publisher Location: San Diego, CA
Source: Sally Ride Science
Source Type: Abstract/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Key Practices for Retaining Undergraduates in Computing

Resource Title: Key Practices for Retaining Undergraduates in Computing
Description/Annotation: Based in research on women's participation in computing, this document outlines a model of the system of undergraduate experiences that affect retention in undergraduate programs. To create and sustain excellence through diversity, effective practices

must be mainstreamed into the experiences of all students, not just those of women or minorities.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
J. McGrath
Publication Date: 2009, Oct
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors Educational Factors » Retention](#)

KIDS Afterschool

Resource Title: KIDS Afterschool

Description/Annotation: KIDS Afterschool is a website designed to provide a curriculum for K-12 educators to make learning fun. The site features a database of activities that cover a wide range of subjects including science, literacy, culture, art, health, math, and engineering. The website offers a curriculum which follows a structured format: four steps that are grounded in years of proven teaching techniques. By promoting critical "21st century" skills like problem solving, communication, and working collaboratively with peers, the activities, teaching techniques and resources of this curriculum can help prepare kids for life.

Web site Link: [Link to Resource](#)

More: KIDS Afterschool is being used in every state in the US and in 30 countries around the world.

Resources: The KIDS Afterschool website has a wealth of tools for educators, including:

- Database of Browsable Activities (by age level, subject, time needed, group size, location)
- Teaching Tips
- Activity Format

- Four-Step Curriculum
- Blog
- Featured Activities

Site Access Details: This is a publicly accessible site. Users can register free of charge.

Partners and Funding: KIDS Afterschool is sponsored by the Boston Children's Museum. The website was made possible by generous funding from Nellie Mae Education Foundation and an anonymous foundation.

Contact Name: Boston Children's Museum

Contact E-mail: info@BostonChildrensMuseum.org

Last Update Date: 2012, Feb 17

Resource Type Categories: [Database/Tool](#) » [Database Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) » [Pedagogy & Instruction](#)

Know Your Students to Increase Diversity: Results of a Study of Community College Women and Men in Computer Science Courses

Resource Title: Know Your Students to Increase Diversity: Results of a Study of Community College Women and Men in Computer Science Courses

Description/Annotation: This paper reports preliminary results of an NSF-funded study of California community college students enrolled in introductory programming courses. The study involves large numbers of both women and men from 15 community colleges, allowing investigators to examine differences in gender, race/ethnicity, and other demographic variables in students' interest and intention to persist in CS. Researchers have collected data on multiple levels of influence as well as longitudinal data that allows for measuring initial intentions. Authors report on several factors that relate to intentions to study CS that can guide interventions to increase diversity. Funded by NSF GSE under award #0936791.

Author Last Name: Werner

Author First Name: Linda

Additional Author: Denner

: Jill

Additional Author: O'Connor

: Lisa

Publication Date: 2012, Apr
Page Numbers: 100-111
Publication Title: Journal of Computing Sciences in Colleges
Volume: 27
Issue: 4
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors Publications by Funder](#)
» [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Lack of Gender Diversity?- Change your Recruiting Tactics

Resource Title: Lack of Gender Diversity?- Change your Recruiting Tactics

Description/Annotation: This paper is a follow-up to the paper that was presented at the Illinois/Indiana sectional conference in April, 2002 that was based on a survey designed to identify the primary motivators leading women to choose engineering/engineering technology. The survey identified several salient points in the decision making process for women students. The foremost was the attitude of the home environment toward education. Another significant factor was the effect of role models and the encouragement towards a technology degree. The student's success in math and science in high school was another significant factor. This paper offers a more in-depth and thorough review of the data collected. The need to address the perceptions of engineering technology held by the women candidates, their peers, and others that have great influence on their lives is visited. Factors that deserve consideration are the what, when and how to recruit women for engineering technology. Examples of programs and procedures that are in place at various schools are cited along with some creative ideas for consideration. The need for establishing an early awareness of the field and the stereotyping that must be overcome is addressed.

Author Last Name: Holcombe
Author First Name: Michael

Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering and Technology

Resource Title: Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering and Technology

Description/Annotation: This 104-page report to the US Congress on the status of women, minorities, and people with disabilities at all levels of the science, engineering, and technology pipeline. At the pre-college level, increased standards and better teachers for math and science are needed, as well as extra-curricular activities and role models. More recruiting and retention efforts are needed for the transition to college, as well as increased financial assistance for students. Greater accountability for employers in the career development and advancement of women, minorities, and people with disabilities is also called for.

Author Last Name: Mendoza

Author First Name: Elaine

Additional Author: Johnson
: Kathryn

Publisher: National Science Foundation, Congressional Commission on the Advancement of Women and Minorities in Science, Engineering and Technology Development

Publisher Location: Washington, D.C.

Publication Date: 2000, Sep

Page Numbers: 1-104

Source: NSF

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Cultural Influences Cultural Influences](#) » [Gender Diversity](#)

Large dataset offers view of math and computer self-efficacy among computer science undergraduates

Resource Title: Large dataset offers view of math and computer self-efficacy among computer science undergraduates

Description/Annotation: First-year data from a large, nationwide, three-year longitudinal study of undergraduates in the computing disciplines have been obtained and are in the process of being analyzed. Participants were from both Historically Black Colleges and Universities and Predominantly White Institutions. This paper presents an initial analysis of just two of the twelve variables being investigated -- math self-efficacy and computer self-efficacy -- and focuses primarily on computer science undergraduates. Comparisons are made between the first-year computer science subjects and first-year subjects from non-computing disciplines who also participated in the survey in order to verify commonly held views about these two variables. Among the computer science subjects, the two variables are examined more closely with respect to gender, ethnicity, university type, and year in school. Funded by NSF GSE under award #0332780.

Author Last Name: Lopez

Author First Name: Antonio M.

Additional Author: Giguette

: Marguerite S.

Additional Author: Schulte

: Lisa J.

Publication Date: 2006

Page Numbers: 158-163

Publication Title: Proceedings of the Forty-fourth ACM Southeast Conference

Source: ACM

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

Lasting Consequences of the Summer Learning Gap

Resource Title: Lasting Consequences of the Summer Learning Gap

Description/Annotation: This 14-page paper reports on a study of the gap in summer learning as affected by socioeconomic status and its effects on long-term educational outcomes. According to the study, differences in achievement on assessments that are present by grade nine correlates to both SES and to differences in child participation in summer learning. This difference in achievement in early education has implications for later high school completion, college entrance and graduation, and career opportunities.

Author Last Name: Alexander

Author First Name: Karl L.

Additional Author: Entwisle

: Doris R.

Additional Author: Steffel Olson

: Linda

Publisher: American Sociological Association

Publication Date: 2007

Page Numbers: 167-180

Publication Title: American Sociological Review

Volume: 72

Issue: 2

Source: National Association for Year-Round Education

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors Educational Factors](#) » [Formal Academic Preparation](#)

Lawrence Summers News Archive

Resource Title: Lawrence Summers News Archive

Description/Annotation: Links to relevant news items, commentaries, response papers, conferences and other information related to the remarks made by then-Harvard President Lawrence Summers at the January 2005 National Board of Economic Research (NBER) Conference "Diversifying the Science & Engineering Workforce: Women, Underrepresented Minorities, and their S&E Careers."

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2005

Source: WISELI

Source Type: Website with links to organized resources

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings Digital Library/Collection](#) Topical Categories: [Career Factors Career Factors](#) » [Family Issues Career Factors](#) » [Leadership & Management Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development Career Factors](#) » [Retention Career Factors](#) » [Stereotype Threat](#)

Leadership and Management in Engineering: Special Diversity Issue

Resource Title: Leadership and Management in Engineering: Special Diversity Issue

Description/Annotation: Journal issue features include: Diversity Is Key to a World-Class Organization, Importance of Diversity in a Successful Firm, LGBT-Friendly Workplaces in Engineering, We Are All Disabled . . . On Some of Us It Shows Disability as a Form of Diversity: A Small Parable, Pit Stops and Scenic Routes: How to Aid Women to Stay on Track in Their Careers, and Diversity in Engineering Education: An African American Female Professor's Perspective.

Author Last Name: Brenner (ed.)

Author First Name: Brian R.

Publisher: ASCE Publications
Publisher Location: Reston, VA
Publication Date: 2008, Jan
Page Numbers: 46
Publication Title: Leadership and Management in Engineering
Volume: 8
Issue: 1
Source: ASCE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Leadership in Your Midst: Tapping the Hidden Strengths of Minority Executives

Resource Title: Leadership in Your Midst: Tapping the Hidden Strengths of Minority Executives

Description/Annotation: Discusses the untapped resources of minority managers and how this could aid companies in leadership efforts. Many minority managers, especially women, give a lot of time to community service outside of work, and mentoring and serving on committees at work. These activities could cultivate leadership skills which would be valuable in the workplace, however, these extra activities are often hidden from company leadership. Ways are offered to help companies leverage these hidden skills. For industry and the workforce.

Author Last Name: Hewlett
Author First Name: Sylvia A.
Additional Author: Luce
:
Additional Author: Carolyn B.
Additional Author: West
:
Additional Author: Cornel
Publisher: Harvard Business Publishing

Publisher Location: Boston, MA
Publication Date: 2005, Nov
Page Numbers: 1-11
Publication Title:
Source: Harvard Business Review
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Leadership Lab for Women in STEM

Resource Title: Leadership Lab for Women in STEM
Description/Annotation: Leadership professional development series draws from more than a decade of research on what works to keep women engaged in STEM professions, and world-class practice in talent development.
Web site Link: [Link to Resource](#)
More: Session 1: Women in STEM: Bias, Barriers, and Opportunities
Session 2: High-impact Leadership for Women in STEM
Session 3: Skills and Strategies for Leading the Way Forward in STEM
Site Access Details: This site is publicly accessible; the program is a fee-based program.
Partners and Funding: Case Western Reserve University, Weatherhead School of Management
Contact E-mail: customprograms@case.edu
Last Update Date: 2015 Feb 16

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Leading Clever People

Resource Title: Leading Clever People

Description/Annotation: This article describes issues of involving creative and clever people within an organization. By their nature, creative people don't want to be led, leading to a challenge not only to attract creative minds, but to retain them by appreciating their value.

Author Last Name: Goffee

Author First Name: Rob

Additional Author: Jones

: Gareth

Publication Date: 2007

Page Numbers: 72-79

Publication Title: Harvard Business Review

Volume: 85

Issue: 3

Source: Harvard Business Review

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Leading Transformation Through Sustaining and Enhancing Effective Team Performance

Resource Title: Leading Transformation Through Sustaining and Enhancing Effective Team Performance

Description/Annotation: Interested in helping your team work more effectively together and be more productive? This workshop is designed for team leaders, program directors and members of teams trying to improve the performance of research, corporate and program focused teams. Participants will have the opportunity to learn and apply best practices in project management to build and maintain effective teams to promote the full participation of women in engineering. Participants will depart with a defined plan designed to sustain and enhance effective team performance to meet their intended goals.

Author Last Name: Simmons

Author First Name: Denise R.
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Leading your Scientists and Engineers 2002

Resource Title: Leading your Scientists and Engineers 2002
Description/Annotation: This article is a list of ten areas identified for managers and leaders of engineers and scientists. This list updates an earlier list by M.K. Badawy done in 1988. Valuable for industry and the workforce.
Author Last Name: Farris
Author First Name: George F.
Additional Author: Cordero
:
Rene
Publisher: Research Technology Management
Publisher Location: Lancaster, PA
Publication Date: 2002, Dec
Page Numbers: 13-25
Volume: 56
Issue: 6
Source: Emerald
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Career Factors](#) » [Leadership & Management](#)

LeanIn.Org

Resource Title: LeanIn.Org

Description/Annotation: Lean In is a nonprofit public benefit organization committed to offering women the ongoing inspiration and support to help them achieve their goals. The LeanIn website is an active and supportive community which encourage an open exchange of ideas and information, as well as Lean In Circles, small groups that meet monthly to encourage and support each other in an atmosphere of confidentiality and trust. LeanIn.org also offers a growing library of free online lectures on topics including leadership and communication.

Web site Link: [Link to Resource](#)

More: LeanIn.org stems from the book, *Lean In*, which focused on encouraging women to pursue their ambitions, and changing the conversation from what we can't do to what we can do.

Resources: LeanIn.Org offers a variety of tools to inspire and support women to achieve their goals:

- [Blog](#)
- [Lean In Stories](#)
- [Education Topics](#) - growing library of free online lectures.
- [Lean In Circles](#) - small groups that meet regularly to share and learn together; [Circle kits](#) include everything needed to run successful circle group.

Site Access Details: This is a publicly accessible site.

Partners and Funding: LeanIn.Org is a nonprofit public benefit organization in the process of applying for recognition from the IRS as a section 501(c)(3) private operating foundation. LeanIn.Org receives all of the profits of Lean In: Women, Work & the Will to Lead by Sheryl Sandberg.

Contact E-mail: info@leanin.org

Last Update Date: August 4, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Learner Achievement and Attitudes Under Different Paces of Transitioning to Independent Problem Solving

Resource Title: Learner Achievement and Attitudes Under Different Paces of Transitioning to Independent Problem Solving

Description/Annotation: This 11-page article reports a study of student achievement in electrical engineering problem solving depending on prior knowledge and the pace of transitioning from worked problems to independent problem solving. Demonstrated variance in the needs of learners in regards to instruction and independent learning.

Author Last Name: Reisslein

Author First Name: Jana

Additional Author: Sullivan

: Howard

Additional Author: Riesslein

: Martin

Publication Date: 2007

Page Numbers: 45-55

Publication Title: Journal of Engineering Education

Volume: 96

Issue: 1

Source: Arizona State University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Learning from Leavers and Stayers: Survey Assessment Findings to Enhance Women's Retention in Engineering

Resource Title: Learning from Leavers and Stayers: Survey Assessment Findings to Enhance Women's Retention in Engineering

Description/Annotation: This 11-page paper from the 2012 WEPAN National Conference details a study by the Broadening Opportunity through Leadership & Diversity (BOLD) Center at the College of Engineering and

Applied Science at the University of Colorado Boulder which examines the experiences of women students who leave engineering. The results from three surveys were used to investigate women's experiences and results indicate a drop in women's confidence to graduate in engineering by their second semester — a drop greater than that of men's — despite both entering engineering with high confidence to do so. The full conference paper is available in PDF format.

Author Last Name: Louie
Author First Name: Beverly
Additional Author: Knight
: Daniel
Additional Author: Hornback
: Jordan
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-11
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Learning Professional Confidence: Linking Teaching Practices, Students' Self-perceptions, and Gender

Resource Title: Learning Professional Confidence: Linking Teaching Practices, Students' Self-perceptions, and Gender

Description/Annotation: This 19-page article analyzes the relationship between teaching methods and student self confidence. Female students gained confidence when the professors' expectations were clear and organized, while male students gained confidence through instructor interaction and feedback. Suggest more effort is needed on the part of engineering faculty to tailor their teaching methods to best serve their students.

Author Last Name: Colbeck

Author First Name: Carol
Additional Author: Cabrera
: Alberto
Additional Author: Terenzini
: Patrick
Publisher: Association for the Study of Higher Education
Publication Date: 2001, Winter
Page Numbers: 173-191
Publication Title: The Review of Higher Education
Volume: 24
Issue: 2
Source: Project MUSE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Learning Science in Informal Environments: People, Places, and Pursuits

Resource Title: Learning Science in Informal Environments: People, Places, and Pursuits

Description/Annotation: This book draws together disparate literature, synthesizes the state of knowledge, and articulates a common framework for the next generation of research on learning science in informal environments across a life span.

Author Last Name: Bell
Author First Name: Philip (ed.)
Additional Author: Lewenstein
: Bruce (ed.)
Additional Author: Shouse

: Andrew (ed.)
Publisher: National Academies Press
Publisher Location: Washington, DC
Publication Date: 2009
Publication Title: Learning Science in Informal Environments
Source: NAS
Source Type: Full text, Summary, Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors » Informal Academic Preparation](#)

Learning Science Online: A Descriptive Study of Online Science Courses for Teachers

Resource Title: Learning Science Online: A Descriptive Study of Online Science Courses for Teachers

Description/Annotation: Online education is a rapidly growing phenomenon for science teachers. Using a sample of 40 online science courses for teachers offered during the 2004-2005 academic year, the Learning Science Online (LSO) study asks: Who are the students in these courses? Who are the instructors? and What does science teaching and learning look like in these courses? This research is unique in that it is the first aggregate study of online science courses from a wide variety of educational programs. Descriptive analyses suggest the typical instructor of these courses mirrors the science professoriate in many ways. The typical student is representative of the majority of high-school science teachers, although more likely to be in the early stages of their careers than the average teacher. The science teaching and learning utilized in these courses included frequent use of online discussions, Web-based readings, and images, while the use of more common instructional methods varied across courses. Funded by NSF GSE under award #0332602.

Author Last Name: Asbell-Clarke
Author First Name: Jodi
Additional Author: Rowe
: Elizabeth

Publication Date: 2007
Page Numbers: 1-59
Source: TERC
Source Type: Full Text

Resource Type Categories: [Articles/Reports Articles/Reports](#) » [Web Resources](#) Topical
Categories: [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Learning to See Inequity in Science

Resource Title: Learning to See Inequity in Science

Description/Annotation: This article discusses inequities in science, defined as unfairness or injustice that is linked to an individual's personal characteristics such as gender, culture, race, ethnicity, linguistic background, and sexual orientation, among others. As stewards of our discipline and scientists who are also educators, we all have a special responsibility to be alert to issues of inequity, to address these issues, and to make careers in science accessible for all. Funded by NSF GSE under award #0337949.

Author Last Name: Tanner

Author First Name: Kimberly D.

Publication Date: 2009

Page Numbers: 265-270

Publication Title: CBE- Life Sciences Education

Volume: 8

Issue: 4

Source: Life Sciences Education

Source Type: Full Text

Resource Type Categories: [Articles/Reports Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Organizational Culture Publications by Funder Career Factors](#) » [Retention](#)

Leaving Boys Behind: Public High School Graduation Rates

Resource Title: Leaving Boys Behind: Public High School Graduation Rates

Description/Annotation: This online article discusses findings from a study of the high school graduation rates for the class of 2003 from the 100 largest school districts in the United States. The data were analyzed by race/ethnicity, gender, and state. The analysis shows that women eclipsed men in overall graduation rates and white students were more likely to graduate than students of a racial/ethnic minority.

Author Last Name: Greene

Author First Name: Jay P.

Additional Author: Winters

: Marcus A.

Publisher: Manhattan Institute for Policy Research

Publisher Location: New York

Publication Date: 2006

Page Numbers: N/A

Publication Title: Civic Report

Volume: 48

Source: Manhattan Institute for Research Policy

Source Type: Full Text, Summary

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Educational Factors Educational Factors » Formal Academic Preparation](#)[Educational Factors » Retention](#)

Leaving Boys Behind: Public High School Graduation Rates

Resource Title: Leaving Boys Behind: Public High School Graduation Rates

Description/Annotation: This 19-page paper from the Manhattan Institute's Center for Civic Innovation (CCI) reports public high school graduation rates for the nation, for each state, and for the 100 largest school districts in the United States. The report presents graduation rates

overall, by race, and by gender for the class of 2003. Results indicated that nationally, 72 percent of female students graduated, compared with 65 percent of male students. The full report is available in PDF format.

Author Last Name: Greene
Author First Name: Jay P.
Additional Author: Winters
:
Publisher: Manhattan Institute for Policy Research, Center for Civic Innovation
Publisher Location: New York
Publication Date: 2006, Apr
Page Numbers: 1-19
Publication Title: Civic Report
Volume: 48
Source: CCI
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports Articles/Reports](#) » [US National Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Leaving Engineering: Gender Differences

Resource Title: Leaving Engineering: Gender Differences
Description/Annotation: The paper focuses on retention in an innovative undergraduate engineering program with many “female-friendly” features despite its design as best practices for all students. Both male and female “stayers” in the program are compared to “leavers” on a variety of characteristics, including pre-college and family background, grades, satisfaction with the Rowan program, engineering self-confidence, and future expectations about their engineering major and career. Data come from a special 2000-2001 survey of all Rowan University engineering students.
Author Last Name: Hartman
Author First Name: Harriet

Additional Author: Hartman
:
Publication Date: 2005
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Leaving Engineering: Lessons from Rowan University's College of Engineering

Resource Title: Leaving Engineering: Lessons from Rowan University's College of Engineering

Description/Annotation: Paper focusing on the retention rate of Rowan University's undergraduate engineering program. Compares characteristics of students who stay and students who leave.

Author Last Name: Hartman
Author First Name: Harriet
Additional Author: Hartman
:
Publisher: American Society for Engineering Education (ASEE)
Publisher Location: Washington, D.C.
Publication Date: 2006
Publication Title: Journal of Engineering Education
Volume: 95
Issue: 1
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Leaving Engineering: Lessons from Rowan University's College of Engineering

Resource Title: Leaving Engineering: Lessons from Rowan University's College of Engineering

Description/Annotation: This paper discusses results of implementing many "female friendly" characteristics of the engineering program at Rowan University. Female friendly characteristics seem to improve female retention.

Author Last Name: Hartman

Author First Name: Harriet

Additional Author: Hartman

: Moshe

Publication Date: 2006, January

Page Numbers: 49-61

Publication Title: Journal of Engineering Education

Volume: 95

Issue: 1

Source: Wiley

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Legislation would boost support for women in science

Resource Title: Legislation would boost support for women in science

Description/Annotation: This article focuses on the Gender Bias Elimination Act of 2007, introduced by Texas Democratic Representative Bernice Johnson, which carry out many of the recommendations of the 2006 National

Academies report "Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering." According to the author, the bill aims to enable the full participation of women in academic science and engineering by providing grants for comprehensive programs to facilitate institution-wide change, as well awards that supports the analysis and adaptation in women's field.

Publication Date: 2008, Jan
Page Numbers: 19
Publication Title: Issues in Science and Technology
Volume: 24
Issue: 2
Source: EBSCO
Source Type: Abstract, Full Text available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Lessons I Have Learned in Three Decades of Working With Teachers About Girls in STEM

Resource Title: Lessons I Have Learned in Three Decades of Working With Teachers About Girls in STEM

Description/Annotation: This paper is a retrospective reflection. Having worked with STEM and education teachers, primarily at the secondary and postsecondary levels, since the 1980s, the author discusses some of the major lessons learned. The author discusses the evolution of teaching gender equity in the past thirty years, why educators resist gender equity, what is still not know about gender equity in education, what seems to work to reach teachers, and how to increase progress.

Author Last Name: Sanders
Author First Name: Jo
Publication Date: 2010
Page Numbers: 99-113
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational
Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Lessons-Learned from “Extension Services” Grantees 2005-2009 (NSF Research on Gender in Science and Engineering Program): a national view

Resource Title: Lessons-Learned from “Extension Services” Grantees 2005-2009 (NSF Research on Gender in Science and Engineering Program): a national view

Description/Annotation: 112 page report describing business models, strategies, and experience of nine active (in 2009) Extension Services grant programs aimed at diffusing research-based innovations that will ultimately lead to a larger and more diverse domestic Science and Engineering workforce. Report profiles specific ES programs and their leaders, lessons learned - both good and bad, and information resources created by ES programs. Offers perspectives of the effectiveness of the ES program itself, such as that most of the new knowledge gained from Extension Services is about business process – how to organize communities of educators around a new issue, transfer new learning and innovation, and motivate them to change their practices.

Author Last Name: Sevo
Author First Name: Ruta
Additional Author: Chubin
: Daryl E.
Publisher: American Association for the Advancement of Science, Center for Advancing Science & Engineering Capacity
Publisher Location: Washington, D.C.
Publication Date: 2010, April

Page Numbers: 112
Source: AAAS
Database Name: Lulu
Source Type: Print available for sale, Full text download for free

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Career Factors](#) » [Retention](#)

Level Playing Field Institute (LPFI)

Resource Title: Level Playing Field Institute (LPFI)

Description/Annotation: LPFI is a San Francisco-based non-profit that is committed to eliminating the barriers faced by underrepresented people of color in science, technology, engineering and math (STEM) and fostering their untapped talent for the advancement of our nation. LPFI centers on education programming and research on equity and bias and aims to reveal and remove the barriers that prevent underrepresented groups from achieving all they can.

Web site Link: [Link to Resource](#)

More: LPFI runs two STEM programs:

- [Summer Math and Science Honors Academy \(SMASH\)](#): a 3-year 5-week summer math and science enrichment program
- [Initiative for Diversity in Education and Leadership \(IDEAL\)](#): a scholarship and leadership support program for low-income underrepresented students of color to maximize their educational and career opportunities while attending University of California Berkeley

Resources: The LPFI website contains a wealth of information regarding underrepresented students:

- Research
 - LPFI Research Reports
 - Resources on STEM Education
 - Resources on STEM Workplaces
 - Current LPFI Research Projects
 - [Smashing Bias Research Prize](#) - an annual conference for action oriented research
- News & Events

- SMASH Academy

Site Access Details: This is a publicly accessible site.

Partners and Funding: LPFI is a non-profit organization managed by a 14-member staff and overseen by a Board of Advisors.

Contact E-mail: info@lpfi.org

Last Update Date: July 26, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Leveraging Social Network Data to Support Faculty Mentoring: Best Practices from NJIT ADVANCE

Resource Title: Leveraging Social Network Data to Support Faculty Mentoring: Best Practices from NJIT ADVANCE

Description/Annotation: The NSF-funded ADVANCE Project at the New Jersey Institute of Technology (NJIT) has addressed the marginalization of women STEM faculty by supporting and analyzing NJIT faculty research collaborations. The project's goal is to develop predictive models of faculty career success as part of a network approach to faculty mentoring. This paper discusses the methodology ADVANCE has used to map changing gender patterns in faculty networks over the past decade.

Author Last Name: Steffen-Fluhr

Author First Name: Nancy L.

Additional Author: Collins

: Regina

Additional Author: Passerini

: Katia

Additional Author: Wu

: Brook

Additional Author: Gruzd

: Anatoliy

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Library and Information Science Professionals as Community Action Researchers in an Academic Setting: Top Ten Directions to Further Institutional Change for People of Diverse Sexual Orientations and Gender Identities

Resource Title: Library and Information Science Professionals as Community Action Researchers in an Academic Setting: Top Ten Directions to Further Institutional Change for People of Diverse Sexual Orientations and Gender Identities

Description/Annotation: This article examines the role of library and information science (LIS) professionals working in an academic environment to promote equality of sexual minorities by taking community action and creating social awareness and acceptance on their behalf. Findings based on qualitative studies and action research conducted in the University of Tennessee at Knoxville (UTK) help identify typical barriers and challenges faced by local LGBTQ individuals toward self-fulfillment and social and political empowerment.

Author Last Name: Mehra
Author First Name: Bharat
Additional Author: Braquet
:
Donna
Publication Date: 2007
Page Numbers: 542-565
Publication Title: Library Trends
Volume: 56
Issue: 2
Source: IDEALS

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#)

Listening to Latinas: Barriers to High School Graduation

Resource Title: Listening to Latinas: Barriers to High School Graduation

Description/Annotation: 52 page report from the National Women's Law Center and the Mexican American Legal Defense and Education Fund explores causes of the dropout crisis for Latinas and identifies actions needed to improve their graduation rates and get them ready for college.

Web site Link: [Link to Resource](#)

Resources: Set of resources on NWLC webpage includes:

- Report and Executive Summary for Listening to Latinas: Barriers to High School Graduation
- Transcript and audio recording of Promising Practices to Improve Latinas' Graduation Rates Oct 14, 2009 conference call
- Fact Sheets for Schools, Local, State and Federal Policymakers
- Reports, Fact sheets and videos on Dropout Prevention and Supporting Pregnant and Parenting Students, including Title IX implications

Site Access Details: This site is publicly accessible.

Partners and Funding: The National Women's Law Center is a nonpartisan, nonprofit organization supported by thousands of institutional and individual supporters. This report was developed by National Women's Law Center and the Mexican American Legal Defense and Education Fund.

Contact E-mail: Info@nwlc.org

Last Update Date: June 6, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Family Educational Factors](#) » [Retention](#) [Cultural Influences](#) » [Stereotype Threat](#)

Longitudinal profiles of children's conceptions of an engineer

Resource Title:	Longitudinal profiles of children's conceptions of an engineer
Description/Annotation:	This study examines elementary school (grades 1–5) children’s conceptions of an engineer as they progress from one year to the next over a three-year period. Data were gathered from three distinct cohorts of students progressing from grades 1 through 3, 2 through 4, and 3 through 5. Using the Draw-An-Engineer Test and semi-structured interviews, researchers explore children’s conceptions before and after they engaged in engineering design-based lessons and furthermore, demonstrate how conceptual change occurred among distinct cohorts of children. Data were analyzed using grounded theory. Results indicated that children were more likely to invoke more fragmented conceptions at younger ages (grades 1 and 2) and more diverse and accurate conceptions as they progressed from grades 3 to 4 to 5. Retention of more accurate conceptions occurred among children at an older age. Consideration must be given to the development of high quality engineering design-based instructional materials and curricular resources that can capture children’s naive ideas and furthermore, promote students’ abilities to develop more meaningful, accurate understandings over time. Funded by NSF GSE under award #0734091.
Author Last Name:	Capobianco
Author First Name:	B.M.
Additional Author:	Mena
:	I.
Publication Date:	2013
Page Numbers:	415-425
Publication Title:	International Journal of Engineering Education
Volume:	29
Issue:	2
Source:	IJEE
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Cultural Influences](#) » [Media & Entertainment Publications by Funder](#) » [NSF-HRD-GSEPublications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Longitudinal survey of female faculty in biological and agricultural engineering

Resource Title: Longitudinal survey of female faculty in biological and agricultural engineering

Description/Annotation: This paper discusses a longitudinal study of female faculty in biological and agricultural engineering to examine their professional experiences, motivations, and insight. Female faculty in Biological & Agricultural Engineering (BAE) were surveyed in 1998 and full results of the original survey were published in the Journal of Women and Minorities in Science and Engineering in 2000. Researchers re-surveyed the population of women in BAE in 2005-2006 to provide further insights into this group and its experiences in the profession.

Author Last Name: Abadie

Author First Name: Alicia

Additional Author: Christy

: Ann

Additional Author: Lima

: Marybeth

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Looking to the future: women in science and engineering

Resource Title: Looking to the future: women in science and engineering

Description/Annotation: As a result of the overall decrease in enrollment in science related fields and recent economic expansions, the United States is experiencing a shortage of trained scientists and engineers. One manner in which to increase the pool of scientists and engineers is to increase the participation of women in these fields. The purpose of this paper is discuss the progress that has been made and the issues that still need to be addressed in order to attract women to the fields of science and engineering.

Author Last Name: Moskal
Author First Name: B.M.
Publication Date: 2000
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Lost in Transition: Transfer Women in STEM

Resource Title: Lost in Transition: Transfer Women in STEM
Description/Annotation: Programming to specifically serve the needs of female transfer STEM students is not widely available in many Women in Engineering programs. We will discuss various program components and learning community structures as a part of a Transfer Learning Community at Iowa State University. Discussion about future programming for transfer students, based on the literature and our program experiences will be shared
Author Last Name: Chrystal
Author First Name: Lora Leigh G.
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Lost in Translation: Gender and High School Computer Science

Resource Title: Lost in Translation: Gender and High School Computer Science

Description/Annotation: This article describes issues related to understanding low female enrollment in computer courses in the Los Angeles School District. Interviews demonstrate the perceived difference between boys and girls in the classroom, and the general feelings associated with girls being outnumbered in these classes.

Author Last Name: Cohoon

Author First Name: J.

Additional Author: Aspray
:

Publication Date: 2004

Page Numbers: 89-114

Publication Title: Women and Information Technology: Research on Underrepresentation

Source: IEEE

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Machine-Learning Models of Problem Space Navigation: The Influence of Gender

Resource Title: Machine-Learning Models of Problem Space Navigation: The Influence of Gender

Description/Annotation: Researchers have developed models of how problem spaces are navigated as male and female secondary school, university, and medical students engage in repetitive complex problem solving. The strategies that students used when solving problem-solving simulations were first classified with self-organizing artificial neural networks resulting in problem solving strategy maps. Next, learning trajectories were developed from sequences of performances by Hidden Markov Modeling that stochastically described students' progress in understanding different domains. Across middle school to medical school there were few gender differences in the proportion of cases solved; however, six of the seven problem sets showed significant gender differences in both the strategies used (ANN classifications) as well as the in the HMM models of progress. These results were extended through a detailed analysis of one problem set. For this high school / university problem set, gender differences were seen in how the problems were encoded, consolidated and retrieved. These studies suggest that strategic problem solving differences are common across gender, and would be masked by simply looking at the outcome of the problem solving event. Funded by NSF GSE under award #0429156.

Author Last Name: Stevens
Author First Name: Ron
Additional Author: Soller
:
Amy
Publication Date: 2005
Publication Title: Computer Science Information Systems
Volume: 1
Source: UCLA
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Mainstreaming Gender Equality in Science in the European Union: the 'ETAN Report'

Resource Title:	Mainstreaming Gender Equality in Science in the European Union: the 'ETAN Report'
Description/Annotation:	This article examines the position of women in science in academe in the European Union. The data demonstrate how irrespective of discipline, proportion of female undergraduates in the discipline, and country, women leave scientific careers in disproportionate numbers at every stage, but particularly after the post-doctoral level. The article outlines three approaches to developing gender equality: equal treatment, positive action and gender mainstreaming, and shows how the position of women in science might be improved by the application of these three approaches by universities and research institutes.
Author Last Name:	Rees
Author First Name:	Teresa
Publication Date:	2001
Page Numbers:	243-260
Publication Title:	Gender and Education
Volume:	13
Issue:	3
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Majoring in Computer Science: Causal Models for Women and Men

Resource Title:	Majoring in Computer Science: Causal Models for Women and Men
Description/Annotation:	Data from 305 surveys to test a theory relating to the intent to major in Computer Science. Attitudes toward mathematics

seemed to play a larger part in the decision of the males while experience with computer science seemed to play a larger role in the intent of women.

Author Last Name: Lips
Author First Name: Hilary M.
Additional Author: Temple
:
Linda
Publisher: Springer Netherlands
Publisher Location: Rotterdam, Netherlands
Publication Date: 2005
Page Numbers: 99-113
Publication Title: Research in Higher Education
Volume: 31
Issue: 1
Source: SpringerLink
Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Makers: Women in Tech

Resource Title: Makers: Women in Tech

Description/Annotation: MAKERS is a digital and video storytelling platform that aims to be the largest and most dynamic collection of women's stories ever assembled. Through original interviews, MAKERS brings together well-known with the trailblazers.

Web site Link: [Link to Resource](#)

More: MAKERS.com launched in 2012 with the stories of 100 groundbreaking women. In 2013, MAKERS premiered the documentary, MAKERS: Women Who Made America, telling the story of the modern American women's movement for the first time on television. The film aired on PBS to 4.3 million viewers and trended #1 on Twitter worldwide when it premiered.

Site Access Details: This site is publicly accessible.
Partners and Funding: Verizon as well as many philanthropic foundations and individuals.
Contact E-mail: press@MAKERS.com
Last Update Date: 2015 Feb 16

Connected Advocates: [Projects & Programs » Engineering Inclusive Teaching \(EIT\)](#) Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors » Leadership & Management Cultural Influences » Media & Entertainment Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Making a difference on \$10 a Day: Creating a "Women in CSE" Seminar Linked to CS1

Resource Title: Making a difference on \$10 a Day: Creating a "Women in CSE" Seminar Linked to CS1

Description/Annotation: This paper discusses a one credit seminar focused on the recruitment and retention of women in technology. The seminar targeted undergraduate women who were co-enrolled in introductory programming at a four year research institution.

Author Last Name: Eney

Author First Name: Crystal

Additional Author: Hoyer

: Crystal

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Educational Factors » Pedagogy & Instruction Educational Factors » Retention](#)

Making a Difference: An Impact Study of Big Brothers Big Sisters

Resource Title: Making a Difference: An Impact Study of Big Brothers Big Sisters

Description/Annotation: A 71-page document that reports on a study of the impact of the Big Brother Big Sister program on youth who participate. Includes data on youth, volunteers, and the matches made, as well as the overall results of the matches in terms of youth behavior, relationships with family and peers, self-concept, and social and cultural enrichment. Concludes with a discussion of the reasons for the positive impacts of the BBBS program and suggestions for serving more youth and conducting further research.

Author Last Name: Tierney

Author First Name: Joseph P.

Additional Author: Grossman

: Jean Baldwin

Additional Author: Resch

: Nancy L.

Publisher: Public/Private Ventures

Publisher Location: Philadelphia, PA

Publication Date: 2000

Page Numbers: 1-71

Source: Issue Lab

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors Career Factors](#) » [Mentoring Individual Beliefs and Behaviors](#) » [Self-perception](#)

Making a Difference: How to Recruit More Community College Women and Underrepresented Minority Students Into Engineering and Computer Science

Resource Title: Making a Difference: How to Recruit More Community College Women and Underrepresented Minority Students Into Engineering and Computer Science

Description/Annotation: This 10-page paper, presented at the 2011 Annual American Society for Engineering Education (ASEE) Conference, describes a collaboration between a Research I university and five nonmetropolitan community colleges, some of which are minority institutions, to encourage more students to study engineering and computer science. The paper describes the impact of information and recruitment visits by university professors, staff, and students on high school and community college students at non-metropolitan community colleges and their visits to the university campus. The full paper is available in PDF format.

Author Last Name: Anderson-Rowland

Author First Name: Mary R.

Additional Author: Grierson

: Anita

Publisher: ASEE

Publisher Location: Washington, DC

Publication Date: 2011

Page Numbers: 10

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Making assessment centres inclusive: Good practice from STEM employers

Resource Title: Making assessment centres inclusive: Good practice from STEM employers

Description/Annotation: Recruitment by engineering employers contains many common elements. This good practice guide was compiled from contributions from a wide range of employers and gender inclusive experts. The guide follows anecdotes of poor experiences from women students and job seekers. The full report is available in PDF format.

Author Last Name: Peters
Author First Name: Jan
Additional Author: McWhinnie
:
Sean
Publisher: UCL Engineering
Publisher Location: London
Publication Date: 2012, Jul
Page Numbers: 12
Source: Katalytik
Source Type: Project website with link to PDF

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#)

Making Biology Learning Relevant to Students: Integrating People, History, and Context into College Biology Teaching

Resource Title: Making Biology Learning Relevant to Students: Integrating People, History, and Context into College Biology Teaching

Description/Annotation: With an ever expanding biology curriculum, some instructors may wonder how they will find space to bring in social issues, and what biological content may be omitted in the process. By strategically embedding social context into those topics that are traditionally reviewed in multiple biology courses we sacrifice little time and content, and allow students to reflect on that social context more than once. By extending the Biological Concepts Framework (Khodar et al., 2004) to issues of social relevance, we may improve student learning retention, since each concept has multiple points of entry, and therefore, multiple points of interest that can serve as avenues for the retrieval of information. Using real-world problems to thread a number of biological concepts together encourages students to move away from seeing biology as a collection of disparate concepts, subject areas, or chapters from textbooks that are far removed from society. This cues them to make connections to biology during their study of nonbiological disciplines. This approach leads to reinforcement of

the social connection and to the development of a habit of mind that students can carry forward as they progress through a 4-yr curriculum and beyond. Funded by NSF GSE under award #0337949.

Author Last Name: Chamany
Author First Name: Katayoun
Additional Author: Allen
:
Additional Author: Deborah
Additional Author: Tanner
:
Additional Author: Kimberly
Publication Date: 2008
Page Numbers: 267-278
Publication Title: CBE- Life Sciences Education
Volume: 7
Issue: 3
Source: Life Sciences Education
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Making Change: A Framework for Promoting Gender Equity in Organizations

Resource Title: Making Change: A Framework for Promoting Gender Equity in Organizations

Description/Annotation: Article presenting a comparative framework illustrating why most gender equity approaches do not create lasting results, and describing four frames to help organizations understand gender equity so they may have a new way to create initiatives addressing gender equity.

Author Last Name: Kolb

Author First Name: D.

Additional Author: Fletcher
:
Additional Author: Meyerson
:
Additional Author: Merrill-Sands
:
Additional Author: Ely
:
Publisher: Simmons Graduate School of Management
Publisher Location: Boston
Publication Date: October 1998
Page Numbers: 1-4
Publication Title: CGO Insights
Source Type: Link to pdf file

Resource Type Categories: [Articles/Reports](#)

Making Machines Talk: Formulating Research Questions

Resource Title: Making Machines Talk: Formulating Research Questions

Description/Annotation: This case study from Stanford's "Gendered Innovations" explores gender assumptions which can influence both the act of speaking and the act of listening even when the speaker is a machine. According to the case study, voices encode rich information about the speaker, even if such information is never directly articulated. The case study shows that analyzing sex (biological factors) and gender (socio-cultural factors) is important for creating text-to-speech (TTS) systems with a range of voices for assistive technologies and other human/computer interface.

Author Last Name: Schiebinger

Author First Name: L.

Additional Author: Klinge
:
Additional Author: Sanchez de Madariaga
:
Additional Author: Schraudner
:
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2011
Publication Title: Gendered Innovations in Science, Health and Medicine, and Engineering
Source: Stanford University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Making the Connection: Timing of Taking Algebra and Future College STEM Participation

Resource Title: Making the Connection: Timing of Taking Algebra and Future College STEM Participation

Description/Annotation: This study examined the connection between the timing of taking algebra in secondary schools and college STEM participation. Data for the study came from the National Education Longitudinal Study of 1988, which spans from 1988 to 2000. Results suggested that while the timing of taking algebra has implications for mathematics and science course enrollment during the first two years of college, its long-term impact on degree attainment is complex. Implications of these findings are discussed.

Author Last Name: Newton
Author First Name: Xiaoxia A.
Additional Author: Torres

: David
Additional Author: Rivero
: Rosario
Publication Date: 2011
Page Numbers: 111-128
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Educational Factors](#) »
[Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#)

Making the Right Moves

Resource Title: Making the Right Moves
Description/Annotation: Based on courses held in 2002 and 2005 by the Burroughs Wellcome Fund and HHMI, this book is a collection of practical advice and experiences from seasoned biomedical investigators. The second edition contains three new chapters on laboratory leadership, project management, and teaching and course design.
Author Last Name: Burroughs Wellcome Fund
Additional Author: Howard Hughes Medical Institute
Publisher: Howard Hughes Medical Institute & Burroughs Wellcome Fund
Publisher Location: Chevy Chase, MD
Publication Date: 2006
Source: HHMI
Source Type: Full text

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Career Factors](#) » [Leadership & Management](#)

Making the technology-intensive class gender-neutral

Resource Title: Making the technology-intensive class gender-neutral

Description/Annotation: This research reports on a study with doctoral level students in both a technology intensive class and a more people-oriented class. The results of the study indicate that although both men and women registered the same degree of social presence regardless of the type of class, the technology-intensive classes displayed significantly less social presence unless assignments were structured to specifically promote that type of interactivity.

Author Last Name: Cohen

Author First Name: M.S.

Additional Author: Ellis

:

T.J.

Publication Date: 2007

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Male Dominance in the Classroom: Does it Explain the Gender Difference in Young Adolescents' Science Ability Perceptions?

Resource Title: Male Dominance in the Classroom: Does it Explain the Gender Difference in Young Adolescents' Science Ability Perceptions?

Description/Annotation: This study examines whether students' level of active participation and perceptions of male dominance in the science ability perceptions. Participants included 165 students in six 5th through 8th-grade hands-on science classrooms in which the teachers associated with the classrooms were sensitive to increasing girls' participation in science.

Author Last Name: Dreves
Author First Name: Candice
Additional Author: Jovanovic
:
Publication Date: 1998
Page Numbers: 90-98
Publication Title: Applied Developmental Science
Volume: 2
Issue: 2
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Male Managers' Perceptions of the Role of Mentoring in Women's Career Advancement in the Chemical Industry

Resource Title: Male Managers' Perceptions of the Role of Mentoring in Women's Career Advancement in the Chemical Industry

Description/Annotation: This qualitative study of nine male managers in industrial chemistry explored their experiences of being mentored and mentoring, as well as their perceptions of women as mentees. Results indicate that (i) these male managers had experiences of being mentored that they believed were important to their careers; (ii) these male managers' own mentoring experiences informed how they mentored others; (iii) these managers accessed both mentors and mentees informally based on similarity, and mentored more men than women; and (iv) this study's male managers' experiences and perceptions of mentoring women were linked to their companies' climates regarding diversity. Implications for research, practice, and advocacy in the workplace are discussed.

Author Last Name: Paquin

Author First Name: Jill D.
Additional Author: Fassinger
: Ruth E.
Publication Date: 2011
Page Numbers: 51-68
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Male, Female: The Evolution of human sex differences

Resource Title: Male, Female: The Evolution of human sex differences
Description/Annotation: This book attempts to explain differences between males and females from the single theoretical perspective of Darwin's principle of sexual selection. An extensive review of biological, psychological and anthropological literature is used to explain differences across cultural and historical periods. The book is written for a general audience.
Author Last Name: Geary
Author First Name: David C.
Publisher: American Psychological Association
Publication Date: 1998
Page Numbers: 1-400
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Malleability in communal goals and beliefs influences attraction to STEM careers: Evidence for a goal congruity perspective

Resource Title: Malleability in communal goals and beliefs influences attraction to STEM careers: Evidence for a goal congruity perspective

Description/Annotation: This article provides evidence for the foundational predictions that gender differences emerge primarily on communal rather than agentic goals and that goal affordance stereotypes reflect beliefs that STEM careers are relatively dissociated from communal goals. The authors provide causal evidence that activated communal goals decrease interest in STEM fields and that the potential for a STEM career to afford communal goals elicits greater positivity. These studies thus provide a novel demonstration that understanding communal goals and goal affordance stereotypes can lend insight into attitudes toward STEM pursuits. Funded by NSF GSE under award #0827606.

Author Last Name: Diekman

Author First Name: A.B.

Additional Author: Clark
: E.K.

Additional Author: Johnston
: A.M.

Additional Author: Brown
: E.R.

Additional Author: Steinberg
: M.

Publication Date: 2011, Nov

Page Numbers: 902-918

Publication Title: Journal of Personality and Social Psychology

Volume: 101

Issue: 5

Source: NCBI

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors](#) » [Family & Peers Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Mama, PhD: Women Write About Motherhood and Academic Life

Resource Title: Mama, PhD: Women Write About Motherhood and Academic Life

Description/Annotation: A book of personal essays written by women who are both academics and mothers. Addresses a wide variety of topics from pregnancy, childcare, family issues, tenure, attitudes in academia, and more. Stories are relevant to academics whether male or female.

Author Last Name: Evans (ed.)

Author First Name: Elrena

Additional Author: Grant (ed.)

: Caroline

Publisher: Rutgers University Press

Publisher Location: New Brunswick, NJ

Publication Date: 2008, Jul

Page Numbers: 1-288

Source: Mama PhD

Source Type: Author website, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors Career Factors](#) » [Family Issues](#)

Managing Barriers and Building Supports in Science and Engineering Doctoral Programs: Conceptual

Underpinnings for a New Online Training Program for Women

Resource Title: Managing Barriers and Building Supports in Science and Engineering Doctoral Programs: Conceptual Underpinnings for a New Online Training Program for Women

Description/Annotation: This article from the Journal of Women and Minorities in Science and Engineering describes an online psychological education program for women in science and engineering doctoral programs. CareerWISE offers resilience training to strengthen women's personal and interpersonal skills for overcoming discouragers and barriers in STEM fields, and expanding supports to fulfill personal and professional ambitions. The foundations for the program, the design elements, program components, current status, and future directions are described. Funded by NSF GSE under award #0910384.

Author Last Name: Bernstein

Author First Name: Bianca L.

Publisher: Begell House, Inc. Publishers

Publisher Location: Redding, CT

Publication Date: 2011

Page Numbers: 97

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 17

Issue: 1

Source: Begell House

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Managing Differences: the Central Challenge of Global Strategy

Resource Title: Managing Differences: the Central Challenge of Global Strategy

Description/Annotation: This article addresses problematic assumptions in global strategies for international companies: first, that the challenge is to strike a balance between economies of scale and responsiveness to local conditions, and second, the more emphasis companies place on scale economies, the more global their strategies will be. The AAA Triangle: Adaption, Aggregation and Arbitrage are counterbalanced to present an effective global strategy.

Author Last Name: Ghemawat

Author First Name: Pankaj

Publication Date: 2007, Mar

Page Numbers: 58-68

Publication Title: Harvard Business Review

Volume: 85

Issue: 3

Source: Harvard Business Review

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Managing Diversity in Corporate America

Resource Title: Managing Diversity in Corporate America

Description/Annotation: In this paper, the authors develop a fact-based approach to modeling diversity management. They use the model to determine whether diversity-friendly corporations really do stand out from other companies by analyzing the strategies pursued by 14 large U.S. companies recognized for their diversity or human resource achievements.

Author Last Name: Marquis

Author First Name: Jefferson P.

Additional Author: Lim

: Nelson

Additional Author: Scott

: Lynn M.

Additional Author: Harrell
:
Additional Author: Margaret C. Kavanagh
:
Jennifer
Publisher: RAND Corporation
Publisher Location: Santa Monica, CA
Publication Date: 2008
Source: RAND Corporation
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Leadership & Management Career Factors](#) » [Organizational Culture](#)

Mapping international perspectives on gender in engineering education research

Resource Title: Mapping international perspectives on gender in engineering education research

Description/Annotation: This paper analyzes approximately 60 publications concerned with women and/or gender from a much larger database of engineering education conference papers and journal articles. Researchers focus on four regions that had at least two publications: North America, Australia, Europe, and the Middle East. Authors focus on geographic and disciplinary distribution of the researchers, topics and contexts represented, and the methods used. Authors found much overlap between regions, but also that certain topics, methods and contexts are more heavily represented in some regions than others. Regional variations as well as theoretical foundations are discussed here, and will be further analyzed in future work. Finally, authors suggest that international research collaborations on gender would benefit from a theory-oriented model of collaboration.

Author Last Name: Beddoes
Author First Name: K.
Additional Author: Borrego

: Maura
Additional Author: Jesiek
: B.K.
Publication Date: 2009
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Mapping Leaks in the Math, Science, and Technology Pipeline

Resource Title: Mapping Leaks in the Math, Science, and Technology Pipeline
Description/Annotation: Many adolescents, particularly female and minority students, choose not to pursue careers in math, science, and technology. This publication examines the issues and seeks to fabricate a solution.
Author Last Name: Jacobs
Author First Name: Janis E.
Additional Author: Simpkins
: Sandra D.
Publisher: Wiley Periodicals, Inc.
Publisher Location: Hoboken, NJ
Publication Date: 2005, Dec
Page Numbers: 3-6
Publication Title: New Directions for Child and Adolescent Development
Volume: 2005
Issue: 110
Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Market Your Profession

Resource Title: Market Your Profession

Description/Annotation: Short commentary encouraging professional engineers to engage in outreach to schools and community as ambassadors for the profession. Recommends involving women engineers for classroom visits to serve as role-models for girls. Useful for engineering professionals looking for examples of how to increase diversity in workforce.

Author Last Name: Almgren

Author First Name: Ray

Publisher: Design News

Publication Date: 2005, Jan 10

Source: Design News

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

Masculinities in organizational cultures in engineering education in Europe: results of the European Union projectWomEng

Resource Title: Masculinities in organizational cultures in engineering education in Europe: results of the European Union projectWomEng

Description/Annotation: The paper describes elements of engineering organizational cultures and structures in higher engineering education from the European project WomEng. Hypotheses, based on state of the art, refer to: women friendly presentation, attractiveness of interdisciplinary teaching methods, single sex education,

perceptions of minority status, feelings of isolation, existing discrimination and coping strategies of female students.

Author Last Name: Sagebiel
Author First Name: F.
Additional Author: Dahmen
:
Publication Date: 2006, Mar
Page Numbers: 5-14
Publication Title: European Journal of Engineering Education
Volume: 31
Issue: 1
Source: INES
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Math and Science Education and United States Competitiveness: Does the Public Care?

Resource Title: Math and Science Education and United States Competitiveness: Does the Public Care?

Description/Annotation: This 8 page summary report done by The Winston Group for the American Council on Education recounts results of a survey done in 2006. The survey included focus groups followed by a national survey of 1,000 registered voters to determine attitudes related to American competitiveness in the global economy and how math and science education affects this competitiveness. The report would be of particular interest to those in curriculum planning for higher education since more than 85% of the public believe jobs are going overseas due to cheaper labor instead of a more highly educated workforce.

Author Last Name: The Winston Group
Publisher: American Council on Education
Publisher Location: Washington, D.C.

Publication Date: 2006, Sep

Source: ECS

Source Type: Summary

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Math and Science Success and Nonsuccess: Journeys Within the Community College

Resource Title:	Math and Science Success and Nonsuccess: Journeys Within the Community College
Description/Annotation:	This manuscript uses transcript analysis blended with descriptive methods to trace the academic diversity of students enrolled in the Los Angeles Community College District. Patterns of success and nonsuccess with respect to the climb through developmental mathematics, time, course completion ratio, and grades disaggregated by gender and ethnicity are traced and reported for students expressing a desire for a STEM career. The study concludes that mathematics success is key to further success for STEM students. While the analysis found some differences by gender and ethnicity, the true diversity of the sample would be better described by differences in academic preparation for STEM.
Author Last Name:	Hagedorn
Author First Name:	Linda Serra
Additional Author:	DuBray
:	Daniel
Publication Date:	2010
Page Numbers:	31-50
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	16
Issue:	1
Source:	Begell House
Source Type:	Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic](#)
[Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Math Camp

Resource Title:	Math Camp
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Description/Annotation: Math Camp is a classroom-focused mathematics resource for teachers on the elementary, middle and high school levels, with a mission to make math interesting, relevant and fun for both teachers and your students using activity-based mathematics education.

Web site Link: [Link to Resource](#)

Resources: MathCamp offers:

- Activity based workshops
- Math education for teachers and curriculum guidance
- Math Classroom Library - classroom-ready mathematics-based activities that you can access, review, download and use
- Technology training so teachers can guide students in data gathering, analysis, and presentation

Site Access Details: Information about Math Camp is in the 'About Us' navigation item. Access to all other resources is managed by the Math Camp administrators.

Partners and Funding: Math Camp is funded by Heuristech Solutions, a private company.

Contact Name: Peter Garrity and Frank Pometti

Last Update Date: June 10, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Math Doesn't Suck

Resource Title: Math Doesn't Suck

Description/Annotation: In MATH DOESN'T SUCK, internationally known actress and bonafide math genius Danica McKellar rips the lid off the myth that math "sucks," helping to show that math can be easy, relevant, and even glamorous—while providing the tools needed to ace the next big math test!

Author Last Name: McKellar

Author First Name: Danica

Publisher: Penguin Group

Publication Date: 2007, Aug

Source: Math Doesn't Suck

Source Type: Author website

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Mathematicians, Attributional Complexity, and Gender

Resource Title: Mathematicians, Attributional Complexity, and Gender

Description/Annotation: This paper discusses a study investigating whether mathematicians were less attributionally complex than nonmathematicians. The Attributional Complexity Scale, a measure of social acuity, was administered to female and male faculty members and graduate students in four Midwestern schools. Additional studies offered some preliminary support for the possibility that it is generally female students who score low on AC who aspire to be mathematicians and for the underlying view that female students' perceived similarity to mathematicians can influence their vocational choices.

Author Last Name: Stalder

Author First Name: Daniel R.

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#)

Mathematics and Physics Faculty Conceptions of Teaching in a First-Year Integrated Project-Based Engineering Curriculum

Resource Title: Mathematics and Physics Faculty Conceptions of Teaching in a First-Year Integrated Project-Based Engineering Curriculum

Description/Annotation: This paper examines the experiences, perspectives, and concerns of mathematics and physics faculty involved in implementing a first-year integrated project-based engineering curriculum. Carried out at a small engineering college that uses project-based learning (PjBL) as its main curricular and pedagogical practice, this curriculum expects that mathematics and physics faculty team-teach in the environment of integrated course blocks. A semi-structured, open-ended interview protocol is employed and grounded theory is used to identify answers to the following questions: (1) What are the conceptions of teaching held by mathematics and physics faculty involved in implementing a first-year integrated project-based engineering curriculum as defined by Kember's categorization of faculty conceptions? (2) To what extent does the context, in which faculty instruct, affect their teaching approaches? (3) To which extent does passive involvement (i.e., no instruction or assessment of teaching techniques) in a student-centered educational environment affect faculty's adoption of learner/knowledge-centered teaching approaches? Preliminary analysis indicates that most mathematics and physics faculty teaching in the project-based environment have student-centered intentions in teaching and the context in which the instruction is implemented (e.g., academic discipline) plays an important role in shaping faculty intentions and teaching approaches. Most faculty identify a need to continually adjust their conceptions of teaching to have a successful teaching and learning experience. Funded by NSF GSE under award #0624738.

Author Last Name: Canfield
Author First Name: Casey
Additional Author: Zastavker
: Yevgeniya
Publication Date: 2009
Publication Title: Proceedings of the 2009 Annual ASEE Conference
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Mathematics Self-Efficacy, Ethnic Identity, Gender, and Career Interests Related to Mathematics and Science

Resource Title: Mathematics Self-Efficacy, Ethnic Identity, Gender, and Career Interests Related to Mathematics and Science

Description/Annotation: Four-hundred and fifteen 11th-grade parochial school students were surveyed to assess their mathematics self-efficacy (SE), ethnic identity, and career interests in mathematics and science. Path analysis disclosed a direct effect of gender on students' career interest (CI). In addition, CI was predicted by mathematics SE, and SE was, in turn, influenced by ethnic identity, academic achievement, and socioeconomic status. Educational implications are discussed, and recommendations are made for further study.

Author Last Name: O'Brien

Author First Name: Virginia

Additional Author: Martinez-Pons

: Manuel

Additional Author: Kopala

: Mary

Publication Date: 1999

Page Numbers: 231-235

Publication Title: The Journal of Educational Research

Volume: 92

Issue: 4

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Mathematics: The Nation's Report Card (NAEP)

Resource Title: Mathematics: The Nation's Report Card (NAEP)

Description/Annotation: NAEP, or the National Assessment of Educational Progress, is often called the "Nation's Report Card." It is the only measure of student achievement in the United States where you can compare the performance of students in your state with the performance of students across the nation or in other states.

Web site Link: [Link to Resource](#)

More: The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history.

Resources: Resources from the Mathematics Nation's Report Card include:

- NAEP 2011 math assessment results for grades 4 and 8
- State Results
- 2011 Trial Urban District Assessment (TUDA)
- NAEP Data Explorer for interactive data reporting
- Schedule of NAEP assessments
- NAEP Publications

Site Access Details: This site is publicly accessible.

Partners and Funding: The Commissioner of Education Statistics, who heads the National Center for Education Statistics in the U.S. Department of Education, is responsible by law for carrying out the NAEP project.

Last Update Date: Dec 26, 2012

Resource Type Categories: [Data and Statistics](#) » [Reports Database/Tool](#) » [Research Tools](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

McKinsey & Company: Women Matter

Resource Title: McKinsey & Company: Women Matter

Description/Annotation: McKinsey & Company is a global management consulting firm working with leading organizations across the private, public and social sectors. McKinsey's Women Matter research has explored the role women play in the global workplace, their experiences and impact in senior-executive roles, and the performance benefits that companies gain from gender diversity.

Web site Link: [Link to Resource](#)

More: Since 2007, Women Matter research has been making the business case for increasing the number of women in senior management roles.

Resources: The Women Matter webpage offers various resources regarding McKinsey's global research program into women's representation in business, including:

- [Women Matter series report](#)
- Key findings from latest research on women executives
- Links to additional resources, including: Catalyst and Women's Forum for the Economy & Society

Site Access Details: The webpage is publicly accessible.

Partners and Funding: McKinsey & Company is a privately owned management consulting firm.

Last Update Date: July 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » Industry Career Factors » Leadership & Management](#)

Measuring Diversity: An Evaluation Guide for STEM Graduate School Leaders

Resource Title: Measuring Diversity: An Evaluation Guide for STEM Graduate School Leaders

Description/Annotation: This guidebook provides a blueprint on how to implement change and benchmark progress in order to scale-up the production of under-represented minority (URM) graduate students who receive PhD degrees and enter the STEM workforce. This guidebook provides a framework and context for evaluation of STEM diversity programs, as well as indicators and other experimental design tips to examine changes in graduate student data. The book includes eight chapters and an epilogue with information written by 25 graduate school administrators and faculty, evaluators and researchers. The authors from the graduate schools are grant recipients of the NSF Alliance for Graduate Education and the Professoriate (NSF AGEP), a major graduate education diversity initiative focused on increasing the number of minority students who earn a PhD in STEM and enter the professoriate.

Author Last Name: George

Author First Name: Yolanda S.

Additional Author: Malcom
: Shirley M.
Additional Author: Campbell
: Patricia
Additional Author: Kibler
: Tom R.
Additional Author: Wiesman
: Jennifer L.
Publisher: American Association for the Advancement of Science
Publisher Location: Washington, DC
Publication Date: 2011
Page Numbers: 1-83
Source: NSF AGEP
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors » Retention](#)

Measuring Perceptions of the Work Environment of Female Faculty

Resource Title: Measuring Perceptions of the Work Environment of Female Faculty

Description/Annotation: This 16-page paper reports a study to measure the effects of some commonly reported barriers to women's career progress as faculty, such as sexist attitudes, work-family balance, and dual standards. Through interviews with women faculty from both US and Canadian institutions, the researchers developed a scale to measure the quality of the work environment that these women faced in academia. This scale is suggested by the authors to assess other institutions. The results indicate that the number of women in an academic department is related to women's perceptions of that department's working environment, making the measurement and improvement of the environment important to equal participation of women.

Author Last Name: Riger
Author First Name: Stephanie
Additional Author: Stokes
:
Additional Author: Raja
:
Additional Author: Sullivan
:
Publication Date: 1997
Page Numbers: 63-78
Publication Title: Review of Higher Education
Volume: 21
Issue: 1
Source: Project Muse
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Measuring the Educational Benefits of Diversity in STEM Education: A Multi-Institutional Survey Analysis of Women and Underrepresented Minorities

Resource Title: Measuring the Educational Benefits of Diversity in STEM Education: A Multi-Institutional Survey Analysis of Women and Underrepresented Minorities

Description/Annotation: The present study measured the educational benefits of diversity in STEM fields using a nationally representative sample of 8,000 undergraduates. Results indicated that students who reported more engagement with diverse peers also reported higher learning gains as indicated by two variables: personal/social learning and critical thinking.

Author Last Name: Strayhorn

Author First Name: Terrell
Publication Date: 2009
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Mediators of Gender Differences in Mathematics College Entrance Test Scores: A Comparison of Spatial Skills With Internalized Beliefs and Anxieties.

Resource Title: Mediators of Gender Differences in Mathematics College Entrance Test Scores: A Comparison of Spatial Skills With Internalized Beliefs and Anxieties.

Description/Annotation: The study reported in this 12-page article sought to determine if spatial skill, math ability, and math self-confidence were mediators of the gender difference on the SAT math test. Only the top third of college bound students were used for the sample. It was found that mental rotation and math self-confidence showed indirect effects but math-anxiety did not. The author suggests that methodologies be developed that incorporate both biological and environmental impacts.

Author Last Name: Casey
Author First Name: Beth
Additional Author: Nuttall
:
Ronald
Additional Author: Pezaris
:
Elizabeth
Publisher: American Psychological Association, Inc.
Publication Date: 1997, Jul
Page Numbers: 669-680

Publication Title: Developmental Psychology
Volume: 33
Issue: 4
Source: APA
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Meeting the Challenge: The Impact of the National Science Foundation's Program for Women and Girls

Resource Title: Meeting the Challenge: The Impact of the National Science Foundation's Program for Women and Girls

Description/Annotation: This article describes a study of the National Science Foundation's Program for Women and Girls (PWG) (now called the Program for Gender Equity in Science, Mathematics, Engineering, and Technology) conducted by the Urban Institute between 1998 and 2000. The study assessed the PWG's contributions to the field of science, mathematics, engineering, and technology (SMET) education and gender equity. The study found that the PWG successfully effected both positive, short-term changes in human capital and long-term changes in knowledge capital and social capital resources to improve equity in SMET.

Author Last Name: Darke
Author First Name: Katherine
Additional Author: Clewell
: Beatriz Chu
Additional Author: Sevo
: Ruta
Publication Date: 2002
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 3&4

Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Diversity Orgs & Pgms for Women and Girls](#) [Cultural Influences](#) » [Gender Diversity](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Memorial Tributes

Resource Title: Memorial Tributes

Description/Annotation: This is the 17th Volume in the series Memorial Tributes compiled by the National Academy of Engineering as a personal remembrance of the lives and outstanding achievements of its members and foreign associates. These volumes are intended to stand as an enduring record of the many contributions of engineers and engineering to the benefit of humankind. In most cases, the authors of the tributes are contemporaries or colleagues who had personal knowledge of the interests and the engineering accomplishments of the deceased.

Author Last Name: National Academy of Engineering

Publisher: National Academies Press, Inc.

Publisher Location: Washington, DC

Publication Date: 2013

Page Numbers: 1-352

Volume: 17

Source: National Academies Press

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Men and Women of the Corporation

Resource Title: Men and Women of the Corporation

Description/Annotation: An important work done by Kanter on corporate power, with an emphasis on women related to the corporation. A benchmark for the corporate world in measuring our success in changing power structures of men and women in the workforce. Interesting historical perspective for those studying or interested in the balance of corporate power and how it has or has not changed over the years.

Author Last Name: Kanter

Author First Name: Rosabeth M.

Publisher: Basic Books

Publisher Location: New York, NY

Publication Date: 1993

Page Numbers: 1-416

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Organizational Culture](#)

Mentoring and Networking Workshop for Junior Women Faculty in the Big Ten

Resource Title: Mentoring and Networking Workshop for Junior Women Faculty in the Big Ten

Description/Annotation: A mentoring and networking workshop for junior women faculty in the Big 10 was held to cultivate peer collaboration and mentoring relationships and foster interactions with senior engineering faculty role models. Post-workshop travel grants were awarded to ten of the junior women to support invited seminars and/or research discussions.

Author Last Name: Juhas

Author First Name: Mary C.

Additional Author: Arruda

: Ellen

Additional Author: Chesler

: Naomi
Additional Author: Tilbury
: Dawn
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Mentoring Early-Stage Faculty: Myths and Missing Elements

Resource Title: Mentoring Early-Stage Faculty: Myths and Missing Elements
Description/Annotation: This 44-page, inexpensive booklet is used in orientations and prof.-development sessions for adjuncts and tenure-track faculty at campuses and professional schools. Included are recommendations for both the content and process to use in readiness workshops for mentors and mentees. Also provided are action steps for provosts, deans, chairs, and mentoring program organizers.
Author Last Name: Moody
Author First Name: JoAnn
Publisher: JoAnn Moody
Publisher Location: San Diego, CA
Publication Date: 2009
Source: Diversity on Campus
Source Type: Summary, Table of Contents, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) »
[Mentoring Career Factors](#) » [Professional Development](#)

Mentoring for Academic Careers in Engineering: Proceedings of the PAESMEM/ Stanford School of Engineering Workshop

Resource Title: Mentoring for Academic Careers in Engineering: Proceedings of the PAESMEM/ Stanford School of Engineering Workshop

Description/Annotation: Notes from a two-day conference on mentoring for academic careers in engineering held at Stanford in 2004. The goal of the workshop was to provide a forum for mentors, mentees, and facilitators to share and educate each other while delivering the content on mentoring. Topics range from early career mentoring, best practices, leadership, mentoring, support, and children.

Author Last Name: Riskin (ed.)

Author First Name: Eve

Additional Author: Ostendorf (ed.)

: Mari

Additional Author: Cosman (ed.)

: Pamela

Additional Author: Effros (ed.)

: Michelle

Additional Author: Li (ed., et al)

: Jia

Publisher: PAESMEM, National Science Foundation, and Stanford University

Publisher Location: Stanford, CA

Publication Date: 2005

Source: PAESMEM

Source Type: full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Mentoring Men of Color and Women to Faculty Positions: Results from a Faculty Survey

Resource Title: Mentoring Men of Color and Women to Faculty Positions: Results from a Faculty Survey

Description/Annotation: This paper reports on an engineering faculty survey designed to provide insights into why under represented (women, African American men, Latinos, and Native American men) enter academia. There continues to be a shortage of participation from these groups in the engineering field and even with all the efforts of people, foundations, and agencies, the numbers are not increasing. Determining what the factors are that motivate and encourage young people to pursue Ph.D.s and then select academic careers, is vital to the economic growth of America.

Author Last Name: Rinehart

Author First Name: Jan

Additional Author: Metz

: Susan Staffin

Additional Author: Ostravskaya

: Natela

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Retention](#)

Mentoring Millenials: Evolving Practices for Guiding a New Generation of Women Engineers to Career Success

Resource Title: Mentoring Millenials: Evolving Practices for Guiding a New Generation of Women Engineers to Career Success

Description/Annotation: Based on research into the habits, persistence and success of college women in STEM, this paper will explore ways to close the gap between how a new generation of students form positive relationships for career support through social media and the lagging practices of private and academic guidance and recruitment to reach and encourage them.

Author Last Name: Porush

Author First Name: David

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Mentoring](#)

Mentoring Millennials: Evolving practices for guiding a new generation of women engineers to career success

Resource Title: Mentoring Millennials: Evolving practices for guiding a new generation of women engineers to career success

Description/Annotation: This WEPAN webinar discusses how millennial students, those born between 1977 and 1993, differ from their predecessors in important ways that can assist in recruiting and retaining more women in engineering. The webinar presenter David Porush, President and CEO of MentorNet, discusses how his non-profit matches engineering and science students with mentors in the professions, with a special focus on leveling the playing field for women and minorities in STEM disciplines. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Porush

Author First Name: David

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2011, Oct

Source: WEPAN

Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Educational Factors Career Factors » Mentoring Educational Factors » Retention Career Factors » Retention Webinars: WEPAN Professional Development Series

Mentoring Women Students in Engineering: Lessons Learned from the Sociology of Gender

Resource Title: Mentoring Women Students in Engineering: Lessons Learned from the Sociology of Gender

Description/Annotation: This paper discusses a number of challenges and obstacles that women in engineering who seek mentoring relationships face. Interpersonally- and institutionally-generated gender dynamics make the construction and maintenance of mentoring relationships especially difficult. Authors discuss how successful mentoring of women rests on, and can help create, a caring community in which women (and men) have equal access to all educational resources including those relevant to their psychosocial as well as technical growth and success.

Author Last Name: Chesler

Author First Name: Naomi C.

Additional Author: Chesler

: Mark A.

Publication Date: 2001

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Career Factors » Mentoring

Mentoring Workshops to Support Women Research Students in Science and Engineering

Resource Title: Mentoring Workshops to Support Women Research Students in Science and Engineering

Description/Annotation: This paper describes a Mentoring Workshop program developed at the University of Cincinnati which concentrates on improving the mentoring aspects of the student-advisor relationship. The Workshops are based on mentoring materials developed by WEPAN and have been used to improve mentor-mentee skills for women graduate students and their advisors, as well as for students in the University's Research Experiences for Women Undergraduates summer program. Workshop facilitators are drawn from faculty members of the University's Women in Science and Engineering (WISE) Committee. The Workshops make effective use of the valuable resource of faculty time contributed by the facilitators, and also expose the women participants to women faculty who have succeeded in science and engineering and who might provide additional mentoring in the future.

Author Last Name: Purdy

Author First Name: C.

Additional Author: German
: Rebecca

Additional Author: Ghia
: Urmila

Additional Author: Hogeland
: Lisa

Additional Author: Kinkle
: Brian

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Mentoring-in-a-Box: Technical Women at Work

Resource Title:	Mentoring-in-a-Box: Technical Women at Work
Description/Annotation:	"Mentoring-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. Informed by research from academic and business literature and by conversations with mentoring experts in the field, this Box is designed to help start and sustain a purposeful and rewarding mentoring relationship. This Box offers activities, guides, templates and tools to support a mentoring pair, presented in an easy-to-use format. The resources are available as Word documents or in PDF format.
Author Last Name:	NCWIT
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2007, May
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors » Faculty Student Interaction](#) [Career Factors » Mentoring](#)

Mentoring-in-a-Box: Women Faculty in Computing

Resource Title:	Mentoring-in-a-Box: Women Faculty in Computing
Description/Annotation:	"Mentoring-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. This guide is designed to help pre-tenure faculty women prepare for the next stage of their careers and look ahead to positions of accomplishment and influence. This resource supplies practical activities, resources, and templates to help faculty start and sustain a successful mentoring relationship. The full guide is available in PDF format.
Author Last Name:	NCWIT
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2007, Oct

Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Tenure Policies & Practices](#)

Mentoring: Making it Work

Resource Title: Mentoring: Making it Work

Description/Annotation: The Information Sheet outlines key research related to mentoring as it applies to the success of females in STEM fields and emphasizes how research on mentoring can be applied to aid in the development of mentoring programs or the improved implementation of existing mentoring programs in the K16 setting. The Literature Overview provides definitions and discusses theoretical constructs associated with mentoring, benefits of mentoring, the role gender in mentoring relationships, and specifically how mentoring can be used to address gender issues in STEM disciplines is reviewed. Also discussed are interventions and successful programmatic initiatives in STEM disciplines utilizing mentoring as well as assessment tools that are useful for evaluating a mentoring program.

Author Last Name: Amelink

Author First Name: Catherine T.

Publisher: SWE-AWE-CASEE

Publication Date: 2009

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

MentorNet: E-Mentoring for Women Students in Engineering and Science

Resource Title: MentorNet: E-Mentoring for Women Students in Engineering and Science

Description/Annotation: This 16-page paper discusses a study on the online mentoring network known as MentorNet. Evaluated the attitudes of users toward the program and the outcomes of the program, including increased self-confidence and an increased desire to continue studying in science and engineering among students.

Author Last Name: Boyle Single

Author First Name: Peg

Additional Author: Muller

: Carol B.

Additional Author: Cunningham

: Christine M.

Additional Author: Single

: Richard M.

Additional Author: Carlsen

: William S.

Publication Date: 2005

Page Numbers: 295-310

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11

Issue: 3

Source: Begell House

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

MentorNet

Resource Title: MentorNet

Description/Annotation: MentorNet is a non-profit initiative whose mission is to advance women and underrepresented individuals in science and technology

through mentoring services resulting in a more diverse global workforce.

Web site Link:

[Link to Resource](#)

Resources:

The MentorNet web portal provides a technology-supported mentoring network at no cost to participants. Through the portal, women and other underrepresented groups have access to the following resources:

- One-on-one mentoring services to community college, undergraduate, graduate and postdoctoral students, and untenured faculty. Over 24,000 mentor matches have been made since 1998.
- Discussion E-forums for web-based discussion group on topics such as diversity issues, job searching and work/life balance
- Resource links to bibliographies, reading lists, MentorNet News, and topical articles from Association for Women in Science (AWIS)
- Resume job search and review service for students and graduates seeking jobs or internships

Site Access Details:

Site visitors can join the MentorNet Community by providing their name, user name and a password. Additional profile information is required to access specific site services such as the resume database. A mentoring profile must be completed to qualify and be matched with a mentor or protege.

Partners and Funding:

Founded in 2002, MentorNet is supported by corporations, colleges and universities, government organizations and professional associations through sponsorships and providing personal mentors to students.

Last Update Date:

August 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Mentorship Primer

Resource Title:

Mentorship Primer

Description/Annotation:

This book explains the value of mentoring and its changing meaning to students, teachers, and leaders. It serves as a comprehensive introduction to mentoring and covers three areas: foundations of mentoring, technical mentoring, and alternative mentoring. Includes glossaries and references. For students, educators, and anyone interested in mentoring as a mentor or mentee.

Author Last Name: Mullen
Author First Name: Carol A.
Publisher: Peter Lang Pub.
Publisher Location: New York, NY
Publication Date: 2005
Page Numbers: 1-144
Database Name: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)
Metrics for Assessing Broadening Participation in a Title IX Context

Resource Title: Metrics for Assessing Broadening Participation in a Title IX Context

Description/Annotation: Title IX legislation mandates equal opportunity for women and men in all educational activities as well as in federally funded programs, including funded research programs. Although women have increased their numbers and visibility in many fields since Title IX became law in 1972, they remain a minority in most STEM fields and face barriers and discrimination at all stages of their education and careers. The Center for the Advancement of Scholarship on Engineering Education (CASEE) of the National Academy of Engineering convened a workshop to discuss possible metrics by which grantee efforts at broadening participation might be demonstrated. Metrics appropriate for use by grantee institutions as well metrics appropriate for use by individual investigators were identified.

Author Last Name: Cady
Author First Name: Elizabeth
Additional Author: Fortenberry
: Norman
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Metrics for Measuring Broadening Participation in NSF Programs

Resource Title: Metrics for Measuring Broadening Participation in NSF Programs

Description/Annotation: The National Science Foundation (NSF) has long encouraged its grantees to consider individual and institutional diversity in their activities, specifically through the Broader Impacts merit review criterion. A group representative of the NSF grantee community participated in a workshop to develop metrics by which grantee institutions and individual principal investigators could document their efforts to broaden participation in science and engineering by persons drawn from populations underrepresented in these fields, as well as from institutions that underparticipate in NSF grantee programs. Deliberations and recommendations of the working group are presented in this article.

Author Last Name: Fortenberry

Author First Name: Norman L.

Additional Author: Cady

: Elizabeth T.

Additional Author: Bramwell

: Fitzgerald

Additional Author: Clewell

: Beatriz Chu

Additional Author: Flaris

: Vicki

Publication Date: 2009

Page Numbers: 245-261

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15
Issue: 3
Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls »
STEM/Diversity Assoc and Not for Profits Diversity Orgs & Pgms for Women and Girls » STEM/Diversity
Outreach Programs

Michelle R. Clayman Institute for Gender Research

Resource Title: Michelle R. Clayman Institute for Gender Research

Description/Annotation: The Michelle R. Clayman Institute for Gender Research at Stanford University was founded in 1974 and is devoted to the study of gender and promoting gender equality. Through a series of workshops, conferences, and fellowships, the Clayman Institute brings together an intellectually diverse group of scholars to provide new insights into the barriers to women's advancement. The Institute also provides updated Gender News among a number of fields ranging from academia and work/career to medicine/science and history. The Institute's annual research magazine, upRising, identifies some of the best research articles from Gender News and uses them to address broader issues. In addition, the Institute offers access to an extensive Library and Media Center which archive academic videos, books, research publications, reports, press releases and fact sheets.

Web site Link: [Link to Resource](#)

Resources: The wealth of information on the Clayman Institute's website is broken down into the following areas:

- Programs
- News
- Strategic Focus
- Events
- Research Fellowships
- Library
- Media Center

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: The Clayman Institute is a part of Stanford's School of Humanities and Sciences. It receives support from a combination of University funds, endowments, and gifts. A Director appointed by the University works with a Faculty Advisory Board, an Advisory Council and a staff to run the Institute. Private gifts are accepted.

Contact E-mail: gender-email@stanford.edu

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs](#)

Microinequities: When Small Slightings Lead to Huge Problems in the Workplace

Resource Title: Microinequities: When Small Slightings Lead to Huge Problems in the Workplace

Description/Annotation: This article from DiversityInc Magazine discusses the cause and consequences of microinequities, or subtle messages that devalue, discourage and ultimately impair performance in the workplace. According to the article, the cumulative effect of microinequities often leads to damaged self-esteem and, eventually, withdrawal from co-workers in the office. The article urges employees and employers to deal with microinequities by bringing them to the forefront through discussion. The full article is available in PDF format.

Author Last Name: Hinton

Author First Name: Eric L.

Publisher: DiversityInc. Media, LLC

Publisher Location: Princeton, NJ

Publication Date: 2003

Publication Title: DiversityInc Magazine

Volume: 2003

Issue: March/April

Source: Stem Equity Pipeline

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) » [Career Factors](#) » [Organizational Culture Individual Beliefs and Behaviors](#) » [Self-perception](#)

Micron Foundation

Resource Title: Micron Foundation

Description/Annotation: The Micron Foundation, part of Micron Technology Inc., one of the world's leading semiconductor companies, is focused on developing effective programs that promote science, technology, engineering and math (STEM) education. The Micron Foundation offers resources for educators, as well as student and community programs.

Web site Link: [Link to Resource](#)

Resources: The Micron Foundation website offers a wealth of information to promote STEM education, including:

- Educator Resources
 - [University Educators](#) - Reserach Grants and University Partnernships
 - K-12 Educators - Hands on lessons that meet math and science standards to get kids excited about learning
- Student Programs
 - K-12 Programs - Camps; Job Shadow; [Girls Going Tech \(GGTech\)](#)
 - University Programs - Hand-on research opportunities for undergraduates and graduates
 - [Micron Student Site](#) - Tech career awareness information
- Community Programs - Volunteerism & Grants

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Micron Foundation is funded by Micron Technology, Inc., Crucial, and Lexar.

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) » [Diversity Orgs & Pgms for Women and Girls](#) » [Industry](#)

Middle School-Aged Children's Attitudes toward Women in Science, Engineering, and Technology and the Effects of Media Literacy Training

Resource Title: Middle School-Aged Children's Attitudes toward Women in Science, Engineering, and Technology and the Effects of Media Literacy Training

Description/Annotation: This study examined the efficacy of media literacy training designed to teach critical thinking about gender stereotypes on middle school-aged children's recognition of gender stereotypes; perceptions of women in science, engineering, and technology (SET); and attitudes toward SET and SET careers. A total of 302 seventh-grade students were randomly assigned to one of three conditions: discussion, discussion plus viewing of media images of women, or a control. No significant differences were found on attitudes toward women in science and attitudes toward science among middle school-aged children who participated in either media literacy training condition compared with those who did not participate in media literacy training. However, significant differences in girls and boys' perceptions of women in SET and their attitudes toward women in SET were found for girls and boys' evaluations of the characteristics of female scientists, with girls rating female scientists as more skillful, intelligent, expert, and qualified than did boys.

Author Last Name: Steinke

Author First Name: Jocelyn

Additional Author: Lapinski

: Maria

Additional Author: Zietsman-Thomas

: Aletta

Additional Author: Nwulu

: Paul

Additional Author: Crocker

: Nikki

Publication Date: 2006

Page Numbers: 295-323

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 12

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Cultural Influences](#)
» [Media & Entertainment](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#)
» [STEM Career Interest/Awareness](#)

Minority Dissent and team innovation: The importance of participation in decision making

Resource Title: Minority Dissent and team innovation: The importance of participation in decision making

Description/Annotation: This article examines minority dissent and its effect on teamwork in the workplace. It proposes minority dissent can increase innovation when teams have a high level of participation in decision making. The study looked at divergent teams and how the level of participation affected decision making, and thus, innovation. For industry leadership and those studying teamwork.

Author Last Name: De Dreu

Author First Name: Carsten K. W.

Additional Author: West

: Michael A.

Publisher: American Psychological Association, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2001

Page Numbers: 1191-1201

Publication Title: Journal of Applied Psychology

Volume: 86

Issue: 6

Source: APA

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Mirror, Mirror on the Wall, Which is the Fairest Test of All? An Examination of the Equitability of Portfolio Assessment Relative to Standardized Tests

Resource Title:	Mirror, Mirror on the Wall, Which is the Fairest Test of All? An Examination of the Equitability of Portfolio Assessment Relative to Standardized Tests
Description/Annotation:	This 34-page article reports on a quantitative study to test whether alternative assessments, in this case a type of assessment known as portfolio assessment, offer more equitable results than traditional standardized testing for 1st and 2nd grade students, particularly in terms of gender, socioeconomic, and racial disparity. Includes a brief history of alternative assessments, an explanation of the use of portfolio assessment in the Rochester, NY, school system, and the research design and findings. According to the study, the racial disparity in scores decreased with the use of portfolio assessment, but gender disparity increased, with girls receiving higher scores at both levels.
Author Last Name:	Supovitz
Author First Name:	Jonathan A.
Additional Author:	Brennan
:	Robert T.
Publication Date:	1997
Page Numbers:	472-506
Publication Title:	Harvard Educational Review
Volume:	67
Issue:	3
Source:	Harvard Education Publishing Group
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Mission Completed? Changing Visibility of Women's Colleges in England and Japan and Their Roles in Promoting Gender Equality in Science

Resource Title: Mission Completed? Changing Visibility of Women's Colleges in England and Japan and Their Roles in Promoting Gender Equality in Science

Description/Annotation: This paper argues that women's universities in Japan became beneficiaries of government initiatives since the early 2000s to reverse the low ratio of women in scientific research. The paper underscores the importance of the reputation of women's universities embedded in their institutional foundations, by explaining how female scientific communities take shape in different national contexts.

Author Last Name: Kodate

Author First Name: Naonori

Additional Author: Kodate

: Kashiko

Additional Author: Kodate

: Takako

Publication Date: 2010, Sep

Page Numbers: 309-330

Publication Title: Minerva

Volume: 48

Issue: 3

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

MIT-K12

Resource Title: MIT-K12

Description/Annotation: The MIT-K12 website, run by the Massachusetts Institute of Technology (MIT), offers fun videos and assignments pertaining to the fields of science, technology, engineering, and mathematics (STEM) geared towards engaging K-12 students in STEM fields. The goal of MIT-K12 is to create a platform for crowd-curated content relevant to K12 STEM Education and to identify specific and advantageous areas for student work. MIT-K12 allows educators from anywhere in the world to submit requests for demonstrations of scientific principles or experiments.

Web site Link: [Link to Resource](#)

More: In December, 2011, Ian Waitz, MIT's Dean of Engineering, launched the MIT-K12 project. As an initial test, the School of Engineering funded 38 student teams, at \$1,000 each, to produce videos illustrating that the best spokespeople in the battle to engage young people in science and engineering are other young people — especially MIT students.

Resources: The MIT-K12 website provides links for educators and students to explore and participate in various STEM assignments and videos:

- [Educators](#)- create an assignment
- Students- participate in open assignment
- Ask an Engineer at MIT
- Videos -search by category and grade level
- [Assignments](#)- search by category and grade level

Site Access Details: This is a publicly accessible site.

Partners and Funding: MIT-K12 is funded by the MIT School of Engineering and Khan Academy.

Last Update Date: july 27, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors](#) » [Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Mixing in Math

Resource Title: Mixing in Math

Description/Annotation: The Mixing in Math (MiM) website offers over 200 English and Spanish resources that aim towards building math skills and engagement among informal educators and children. MiM materials blend math with fitness, nature, cooking, and daily routines and thrive to change attitudes about math. The bank of MiM resources

include crafts, games, projects, movement activities, and museum-type displays for informal educators to use with children and families.

Web site Link: [Link to Resource](#)

More: MiM has served for years as a core component of hundreds of information education programs- both direct service and training organizations. MiM resources are used by at least 60,000 informal educators with 975,000 children and families.

Resources: The wealth of resources at the MIM website include:

- Research Reports
- Materials (English & Spanish), such as:
 - Activity list
 - Calendar
 - Games
 - Mixing in Math Moments
 - Newsletters
 - Posters
 - Activity Search
- Math in MIM
- Training and Use (Workshop modules for libraries and after-school educators)
- MIM Products
- MIM Webinars

Site Access Details: This site is publicly accessible free of charge.

Partners and Funding: MIM was developed at TERC and funded in part by the National Science Foundation.

Contact E-mail: mixinginmath@terc.edu

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Model Eliciting Activities: An In-class Approach to Improving Interest and Persistence of Women in Engineering

Resource Title: Model Eliciting Activities: An In-class Approach to Improving Interest and Persistence of Women in Engineering

Description/Annotation: This paper describes four Model Eliciting Activities (MEAs) that were implemented in a first-year problem solving and computer tools course at Purdue University in Fall 2002. The paper describes the nature of MEAs, overviews the research methodology, and demonstrates evidence of curriculum reform at Purdue. According to the authors, MEA creates an environment in which skills beyond mathematical abilities are valued because the focus is not on the use of prescribed equations and algorithms but on the use of a broader spectrum of skills required for effective engineering problem solving. Funded by NSF GSE under award #0120794.

Author Last Name: Diefes-Dux
Author First Name: Heidi
Additional Author: Follman
:
Additional Author: Imbrie
:
Additional Author: Zawojewski
:
Additional Author: Capobianco
:
Additional Author: Brenda
Publication Date: 2004
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Modeling the career pathways of women STEM faculty through oral histories and participatory research methods

Resource Title: Modeling the career pathways of women STEM faculty through oral histories and participatory research methods

Description/Annotation: This paper focuses on the ways oral histories and participatory research methods allow us to model the career pathways of women STEM faculty. Authors seek to illustrate how oral history and participatory research are effective methods to: 1) identify women's career pathways into STEM faculty; 2) compare and contrast career pathways to climate and pipeline metaphors as well as discover new metaphors; 3) identify critical points in women's career pathways; and 4) discover new information about women's paths into STEM faculty. Authors describe early results from a set of semi-structured interviews of women faculty in STEM disciplines collected as part of research done through an ADVANCE grant, a NSF- funded project intended to achieve improved career success for women faculty in STEM disciplines. Funded by NSF ADVANCE under award #0811194.

Author Last Name: Hoegh

Author First Name: Jordana

Additional Author: Pawley

: Alice

Publication Date: 2010

Publication Title: 2010 ASEE Annual Conference & Exposition

Source: Academia.edu

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Professional Development Publications by Funder Career Factors](#) » [Retention](#)

Modeling the Development of Problem Solving Skills in Chemistry with a Web-Based Tutor

Resource Title: Modeling the Development of Problem Solving Skills in Chemistry with a Web-Based Tutor

Description/Annotation: This research describes a probabilistic approach for developing predictive models of how students learn problem-solving skills in general qualitative chemistry. The goal is to use these models to

apply active, real-time interventions when the learning appears less than optimal. Researchers use self-organizing artificial neural networks to identify the most common student strategies on the online tasks, and then apply Hidden Markov Modeling to sequences of these strategies to model learning trajectories. Results indicate that strategic learning trajectories, which are consistent with theories of competence development, can be modeled with a stochastic state transition paradigm; trajectories differ across gender, collaborative groups and student ability; and, these models can be used to accurately (>80%) predict future performances. This approach is applicable to many science domains where learning in a complex domain can be followed over time. Funded by NSF GSE under award #0429156.

Author Last Name: Stevens
Author First Name: Ron
Additional Author: Soller
: Amy
Additional Author: Cooper
: Melanie
Additional Author: Sprang
: Marcia
Publication Date: 2004
Page Numbers: 580-591
Publication Title: Intelligent Tutoring Systems: Lecture Notes in Computer Science
Volume: 3220
Source: Springer
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Momox

Resource Title: Momox

Description/Annotation: Website by Ruta Sevo that informs and educates parents, afterschool leaders, educators, researchers, girls and boys on the history, current status and future direction of women in science and engineering. The website is loaded with resources all hand-selected by Ruta for relevancy.

Web site Link: [Link to Resource](#)

More:

- Serving Up - A guide for people who find themselves involved in outreach programs, or want to know about them.
- Title IX and Science and Engineering - narrative timeline, summary overview, position paper, relevant websites
- Research on Discrimination: Bias Literacy - concepts in research on discrimination, literature overview (accessible with free registration), reading list
- Timeline for Women in Science and Engineering
- Boomer Links

Resources: Ruta's 10 x 10 List is an easily digestible, categorized and annotated list of 100 resources. Resources include:

- Self-study guide
- Bibliographies
- Biographies
- Inspirational videos and cds for girls
- Guides for parents and afterschool leaders
- Afterschool activities, materials and kits
- Training and consulting services
- Best practices for K12
- University-level transformation/change
- International activity
- National policy reports
- Research on discrimination and women in science and engineering
- Statistics on diversity in science and engineering
- Title IX and science and engineering education
- Games and online activities for children
- Related organizations

Site Access Details: This site is publicly accessible.

Partners and Funding: This site is supported by momox.org.

Contact Name: Ruta Sevo

Contact E-mail: ruta@momox.org

Last Update Date: June 7, 2013

Resource Type Categories: Website/Portal Topical Categories: Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Monitoring long term effects of an outreach program for girls

Resource Title: Monitoring long term effects of an outreach program for girls

Description/Annotation: This paper discusses a study performed for WPI Camp REACH, a two-week residential program to interest 7th grade girls in engineering, which examined interest in engineering and self-reporting of abilities in a variety of skills. A control group was used to comparatively measure the effects.

Author Last Name: Nicoletti

Author First Name: D.

Additional Author: Petruccelli

: J.D.

Additional Author: Russell

: J.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Monolith or Mosaic: Using Demographics and Detailed Surveys to Understand the Many and Varied Dimensions of First-Year Female Engineering Students

Resource Title: Monolith or Mosaic: Using Demographics and Detailed Surveys to Understand the Many and Varied Dimensions of First-Year Female Engineering Students

Description/Annotation: The observation of substantially different retention rates of men versus women in a required first-year, two-course “Introduction to Engineering Systems” sequence at the University of Notre Dame motivated an examination of demographic and survey data to assess retention patterns. In the course of examining these data, it became evident that different sub-groups of women exhibit different retention patterns.

Author Last Name: Pieronek

Author First Name: Catherine

Additional Author: McWilliams

: Leo H.

Additional Author: Silliman

: Stephen E.

Additional Author: Uhran

: John J.

Additional Author: Gunty

: Mark

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

More than a Bumper Sticker: The Factors Influencing Information Systems Career Choice

Resource Title: More than a Bumper Sticker: The Factors Influencing Information Systems Career Choice

Description/Annotation: Considering the ongoing concerns regarding enrollments in MIS programs, it is necessary for MIS educators to understand the underlying motivations that influence student choices of major, as well as how students view the field of MIS related to these factors. To address this problem, a series of focus group sessions

were conducted on three distinct samples of students which examined the following questions: (1) What factors influence a business student's selection of a field of study and/or career? (2) What factors encourage or deter a business student's choice to enter the field of MIS? and (3) What strategies can an MIS department employ to increase awareness about MIS-related careers among business students? Results from these focus groups suggest that most students rated job scope as an important issue in their deciding on a major; however, students with little or no knowledge of MIS perceived this career path as narrowly focused (e.g., sitting at a computer and coding all day). Results also suggest that non-MIS majors held more negative perceptions of the characteristics associated with MIS professionals, whereas freshman and sophomore students declaring MIS as their future major held more positive perceptions than non-MIS majors, and junior and senior MIS majors held even more positive perceptions. Funded by NSF GSE under award #0733747.

Author Last Name: Scott
Author First Name: Christopher
Additional Author: Fuller
: Mark A.
Additional Author: Macindoe
: Kimberly M.
Additional Author: Joshi
: K.D.
Page Numbers: 7
Publication Title: 2009, Mar
Volume: 24
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

More Women in Science

Resource Title: More Women in Science

Description/Annotation: The authors of this article explore the reasons for the lack of women scientists in academia. They offer strategies used at universities to help improve recruitment, retention, and advancement of women scientists. For academics and higher education leadership.

Author Last Name: Handelsman

Author First Name: Jo

Additional Author: Cantor

: Nancy

Additional Author: Carnes

: Molly

Additional Author: Denton

: Denice

Additional Author: Fine et al

: Eve

Publisher: American Association for the Advancement of Science (AAAS)

Publisher Location: Washington, D.C.

Publication Date: 2005, Aug

Page Numbers: 1190-1191

Publication Title: Science

Volume: 309

Source: AAAS

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Most Mentoring Programs Stink- But Yours Doesn't Have To

Resource Title: Most Mentoring Programs Stink- But Yours Doesn't Have To

Description/Annotation: Outlines the pitfalls and benefits of mentoring programs. Model program at Ernst & Young increased retention of women and saved the firm \$10 million that would have been spent in recruiting and training replacements. Useful for WEP directors, engineering colleges, and industry members looking for model program design.

Author Last Name: Boyle

Author First Name: Matthew

Publication Date: 2005, Aug 1

Publication Title: Training

Source: Training Magazine

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Mother Daughter Technology Engineering Aptitude (T.E.A.)

Resource Title: Mother Daughter Technology Engineering Aptitude (T.E.A.)

Description/Annotation: The Mother/Daughter Technology Engineering Aptitude (T.E.A.) workshop will showcase the Mother/Daughter TEA event by providing examples of the hands-on activities and strategies used to encourage middle school girls to explore valuable, high-wage careers in engineering and technology. This workshop emphasizes problem solving and creative solutions.

Author Last Name: Baine

Author First Name: Celeste

Additional Author: Bredeson

: Mary Kaye

Additional Author: Avary

: Ann

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Motherhood, the Elephant in the Laboratory: Women Scientists Speak Out

Resource Title: Motherhood, the Elephant in the Laboratory: Women Scientists Speak Out

Description/Annotation: This book contains essays by women scientists across many different specialties about their experiences of being a mother and a scientist at the same time. While the book is relevant to anyone faced with the challenges of trying to juggle family and career in any field, it also brings to light the difficulties women face in the scientific fields. The authors provide an honest and interesting look at balancing work and family in a traditionally male-dominated industry. Valuable for women and men in the sciences with families or thinking about how to combine a family with different career paths in science.

Author Last Name: Monosson (ed.)
Author First Name: Emily
Publisher: Cornell University Press
Publisher Location: Ithaca, NY
Publication Date: 2008, May
Page Numbers: 1-219
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors Career Factors](#) » [Family Issues](#)

Mothers and Millenials: Career Talking Across the Generations

Resource Title: Mothers and Millenials: Career Talking Across the Generations

Description/Annotation: This paper explores career decision communication between mothers and daughters living in the information age. Qualitative data from telephone interviews of eleven matched pairs of mothers and their high school daughters indicate that daughters are turning first to their mothers for career advice and communication is taking place while simple routine tasks of daily living are performed. Findings suggest generational differences in communication with quality and quantity of conversation about careers improving. Mothers are a source of career information for their daughters and could benefit from additional resources about non-traditional careers so that the guidance they provide to their Millennial daughters in this information age includes a wide range of career options. Funded by NSF GSE under award #0120458.

Author Last Name: Meszaros

Author First Name: Peggy S.

Additional Author: Creamer
: Elizabeth

Additional Author: Burger
: Carol

Additional Author: Matheson
: Jennifer

Publication Date: 2005

Publication Title: Family Communication in the Information Age

Volume: 16

Issue: 1

Source: Kappa Omicron Nu

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories](#): [Individual Beliefs and Behaviors](#) » [Family & Peers](#)

Mothers on the Fast Track: How a New Generation can Balance Family and Careers

Resource Title:	Mothers on the Fast Track: How a New Generation can Balance Family and Careers
Description/Annotation:	Book provides a guide for working women on when and if to have children. Provides advice and anecdotes on balancing career and family. Targeted chapters by age/life phase include "Staying the Course" and "Second Changes for Mothers".
Author Last Name:	Mason
Author First Name:	Mary Ann
Additional Author:	Mason Ekman
:	Eve
Publisher:	Oxford University Press
Publisher Location:	NY, NY
Publication Date:	2007
Page Numbers:	149
Source:	Google Books
Source Type:	Availalbe for sale, Partial test

Motivating Women Engineering Students through Community-Based Projects

Resource Title:	Motivating Women Engineering Students through Community-Based Projects
Description/Annotation:	This paper describes a collaborative project between the Virtual Development Center (VDC) site at Santa Clara University and HomeSafe, a transitional housing community for survivors of domestic violence. Researchers found that in addition to showing the students the benefits of serving the community, and of having to design for a specific real world user population, VDC was able

to attract many women students to the project. This paper describes the experience of the students and the projects they produced for the women at HomeSafe.

Author Last Name: Davis
Author First Name: Ruth E.
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Motivation and self-regulated science learning in high-achieving students: differences related to nation, gender, and grade-level

Resource Title: Motivation and self-regulated science learning in high-achieving students: differences related to nation, gender, and grade-level

Description/Annotation: A total of three hundred and fifteen gifted students from the 10th through 12th grade from the United States, China, and Germany were surveyed regarding their motivation and self-regulation in chemistry learning.

Author Last Name: Tang
Author First Name: Min
Additional Author: Neber
: Heinz
Publication Date: 2008
Page Numbers: 103-116
Publication Title: High Ability Studies
Volume: 19
Issue: 2

Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

MOTIVATION Project Final Report: Promoting positive images of SET in young people under gender perspective

Resource Title: MOTIVATION Project Final Report: Promoting positive images of SET in young people under gender perspective

Description/Annotation: This 44-page report describes the MOTIVATION Project, a coordination action funded by the European Commission within the 7th Framework Program. According to the report, the aim of MOTIVATION was to learn more about factors which influence the image of science, engineering and technology (SET) to attract more young people for these fields. The report details the project's 7 work packages and results show that more diverse and realistic job images should be integrated in youth media like magazines and soap operas. The full report is available in PDF format.

Author Last Name: Sagebiel

Author First Name: Felizitas

Additional Author: Alemany

: Carme

Additional Author: Dahmen

: Jennifer

Additional Author: Davidsson

: Bodil

Additional Author: GodfroyGenin

: Anne-Sophie

Publisher: Publications Office of the European Union

Publisher Location: Luxembourg

Publication Date: 2010

Page Numbers: 1-44
Source: Community Research and Development Information Service (CORDIS)
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Cultural Influences](#) » [Media & Entertainment](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Motivation to Learn Science: Differences Related to Gender, Class Type, and Ability

Resource Title: Motivation to Learn Science: Differences Related to Gender, Class Type, and Ability

Description/Annotation: Motivation differences of gender, science class type (biological vs. physical), and ability level of 242 high school students were investigated. High achievers and physical science students had higher scores than did low achievers and biological science students on academic goals, valuing science, and perceived ability. Boys had higher scores than did girls on perceived ability and stereotyped views of science.

Author Last Name: Debacker

Author First Name: Teresa K.

Additional Author: Nelson
: R. Michael

Publication Date: 2000

Page Numbers: 245-254

Publication Title: The Journal of Educational Research

Volume: 93

Issue: 4

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Motivation Toward a Graduate Career in the Physical Sciences: Gender Differences and the Impact on Science Career Productivity

Resource Title: Motivation Toward a Graduate Career in the Physical Sciences: Gender Differences and the Impact on Science Career Productivity

Description/Annotation: This study examines gender differences in motivations toward a graduate career in the physical sciences and their ability to predict select future success outcomes (publications and grant funding) for physical scientists. The data were obtained as part of Project Crossover, a national study of physicists and chemists. Overall, motivations for males and females were similar. Regression results indicate that individuals who chose a graduate career in the physical sciences primarily because they enjoyed thinking about science or were encouraged by significant others were more productive in terms of primary/first- author publications and generation of grant funding than those who were motivated by factors such as academic performance or desire to impact society.

Author Last Name: Hazari

Author First Name: Zahra

Additional Author: Potvin

: Geoff

Additional Author: Tai

: Robert H.

Additional Author: Almarode

: John T.

Publication Date: 2012, Mar

Page Numbers: 90

Publication Title: Journal of College Science Teaching

Volume: 41

Issue: 4

Source: Clemson University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Motivational Factors in STEM: Interest and Academic Self-Concept

Resource Title:	Motivational Factors in STEM: Interest and Academic Self-Concept
Description/Annotation:	Information Sheet presents an illustration of how achievement influences self-concept and interest in STEM. Literature Overview reviews the empirical research on the development of self-concept and interest and report on interventions designed to increase self-concept and interest in STEM.
Author Last Name:	Beier
Author First Name:	Margaret E.
Publisher:	SWE-AWE, NAE-CASEE
Publication Date:	2009
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) [Topical](#) Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Moving Beyond Computer Literacy: Why schools should teach computer science

Resource Title:	Moving Beyond Computer Literacy: Why schools should teach computer science
Description/Annotation:	This 2-page guide from the National Center for Women and Information Technology (NCWIT), the Computer Science Teachers Association (CSTA), and the Association for Computing Machinery (ACM) provides information about the value of

computer science curriculum for students, educators, local and national economies as well as global society. The guide also offers steps schools can take to successfully incorporate computer science education. The report is available in PDF format.

Author Last Name: NCWIT
Additional Author: CSTA
Additional Author: ACM
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2009
Page Numbers: 1-2
Publication Title: Talking Points
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) »
[Curriculum Educational Factors](#)

Moving Beyond the "add and Stir" Approach to Increasing Diversity in the Sciences: Design and Implementation of an Undergraduate Course Entitled Ethnic Minorities in Science

Resource Title: Moving Beyond the "add and Stir" Approach to Increasing Diversity in the Sciences: Design and Implementation of an Undergraduate Course Entitled Ethnic Minorities in Science

Description/Annotation: In an effort to create a more culturally inclusive undergraduate science curriculum, a course entitled "Ethnic Minorities in Science" was designed and implemented. The course has the following learning objectives: to understand the history and culture of science in the U.S., in order to recognize what has led to the current under representation of specific ethnic groups in the sciences; to appreciate the often undervalued or overlooked contributions of minority scientists and physicians; to gain a perspective on the disparities in the quality of health care available to various ethnic groups in the U.S.; and to identify

ways to initiate change and improve the climate for minorities in the fields of science and medicine. Course readings, pedagogical methods, and the impact of the course on students' awareness of diversity issues in science are discussed.

Author Last Name: Bauer-Dantoin
Author First Name: Angela C.
Additional Author: Ritch
:
Donna
Publication Date: 2005
Page Numbers: 329-343
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Moving Beyond the Double-Bind: WIE and MEP Programs and Serving the Needs of Women of Color in Engineering

Resource Title: Moving Beyond the Double-Bind: WIE and MEP Programs and Serving the Needs of Women of Color in Engineering

Description/Annotation: This 20-page paper reports preliminary results of a pilot study that explores the following within a set of nine institutions: the trend in representation of women, underrepresented minority women, and underrepresented minority men in engineering; the key features of Women in Engineering (WIE) and Minority Engineering Programs (MEP) offices; institutional/contextual factors affecting the representation of women; and the role of scholarship programs on leveling the field for women of color in engineering. The preliminary analyses in the paper focuses on a specific subset of the 50 institutions that are in a partnership with a large non-profit

engineering scholarship and research organization, the National Action Council for Minorities in Engineering, Inc. (NACME). The full paper is available in PDF format.

Author Last Name: Frehill
Author First Name: Lisa
Publisher: American Society for Engineering Education (ASEE)
Publisher Location: Washington, DC
Publication Date: 2011
Page Numbers: 1-20
Publication Title: Proceedings of the 2011 American Society for Engineering Education Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#)[Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#)

Moving Women from School to Work in Science: Curriculum Demands/Adult Identities. And Life Transitions

Resource Title: Moving Women from School to Work in Science: Curriculum Demands/Adult Identities. And Life Transitions

Description/Annotation: This article proposes that the organization of some college curriculum programs as well as some workplaces presents special and perhaps unnecessary obstacles to women who might pursue science or engineering. The article begins with a framework for thinking about connections between school and work in various fields and reveals important differences in the way college degree programs are organized and in their implications for the transition to work. The article reviews results of previous ethnographic research about women's actual experiences in college and work.

Author Last Name: Eisenhart
Author First Name: Margaret

Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Career Factors](#) »
[Professional Development](#) [Educational Factors](#) » [Retention](#)

Multiple Roles, Multiple Burdens: The Experiences of Female Scientists With Children

Resource Title: Multiple Roles, Multiple Burdens: The Experiences of Female Scientists With Children

Description/Annotation: This article from the Journal of Women and Minorities in Science and Engineering details a qualitative case study of faculty at one research institution which examined the factors that shape female scientists' ability to balance motherhood and their careers. The results indicated that female scientists' ability to balance competing demands was shaped by the nature of the academic work in the sciences, departmental colleagues, and features of home life. According to the article, the underlying norms suggested that faculty should prioritize work over family. The article concludes with suggestions of ways institutions might create a culture that supports female scientists in balancing their work and home demands.

Author Last Name: Sallee
Author First Name: Margaret W.
Additional Author: Pascale
:
Amanda Blakewood
Publisher: Begell House, Inc
Publisher Location: Redding, CT
Publication Date: 2012

Page Numbers: 135-152
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 18
Issue: 2
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

My College Options

Resource Title: My College Options

Description/Annotation: MyCollegeOptions.org is a comprehensive, free online college planning program offering assistance to students, parents, high schools, counselors, and teachers nationwide.

Web site Link: [Link to Resource](#)

Logo:

More: Service provided by the National Research Center for College & University Admissions™ (NRCCUA®). For almost 40 years, NRCCUA has conducted the largest nationwide survey of high school students, which serves as a communications link between college-bound high school students and public and private colleges and universities.

Resources: Resources for students, parents, counselors/educators.

- Student profile populated via online survey; search tools to locate colleges related to profile interests
- Advice and resources on college funding and choosing a major
- Educator resources to deliver survey to students, high school/state/national reports, scholarship resources

Site Access Details: The site is publicly accessible requiring a free login to access a student's personal online college and career planning profile and for educators to access their institution's information.

Partners and Funding: NRCCUA is a non-profit educational research organization based in Lee's Summit, MO.

Contact Name: Ryan Munce

Contact E-mail: ryan@mycollegeoptions.org

Last Update Date: July 1, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

NASA Pennsylvania Space Grant Consortium (PSGC)

Resource Title: NASA Pennsylvania Space Grant Consortium (PSGC)

Description/Annotation: One of 52 members of the National Space Grant College and Fellowship Program, mission is to expand opportunities for Pennsylvanians to learn about and participate in NASA's aeronautics and space programs by supporting and enhancing science, technology. The Pennsylvania Space Grant Consortium sponsors several camps, exploration days, competitions, and programs in engineering in science for K-12 students.

Web site Link: [Link to Resource](#)

More: The Pennsylvania Space Grant Consortium (PSGC) was established in 1989 as a component of NASA's National Space Grant College and Fellowship Program. The PSGC is comprised of fourteen public and private universities and colleges working together with industry and precollege partners to increase Pennsylvania's participation in the economic, educational, and scientific benefits of our nation's space program.

The PSGC is part of a national network of 52 state-wide Consortia. The Space Grant mission is to expand opportunities for Americans to learn about and participate in NASA's aeronautics and space programs by supporting and enhancing science and engineering education, research, and outreach programs.

Resources: Site has scholarships, internships, fellowships, competitions, and projects opportunities for undergraduate students, graduate students, faculty and post-doctorate students.

Site has opportunities for K12 educators, K-8 students and 9-12 grade students.

Site Access Details: This site is publicly accessible.

Partners and Funding: Penn State University, NASA Training Grant

Contact E-mail: spacegrant@psu.edu

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » Government Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

NASA's Imagine the Universe

Resource Title: NASA's Imagine the Universe

Description/Annotation: This website from NASA is full of resources for anyone aged 14 and over who is interested in learning about the universe.

Web site Link: [Link to Resource](#)

Resources: Information rich site contains descriptions of:

- Science - the Basics, Cosmic Objects, Cosmic Questions, the Search for Answers
- Advanced Science - Advanced Fundamentals, Cosmic Objects, Cosmological Questions, the Search for Answers
- Special Exhibits
- Satellites and Data
- Teacher's Corner
- Ask an Astrophysicist

Site Access Details: This site is publicly accessible.

Partners and Funding: Imagine the Universe! is a service of the High Energy Astrophysics Science Archive Research Center (HEASARC), Dr. Alan Smale (Director), within the Astrophysics Science Division (ASD) at NASA's Goddard Space Flight Center.

Contact Name: Dr. Jim Lochner

Contact E-mail: lochner@lheamail.gsfc.nasa.gov

Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors » Informal Academic Preparation](#)

NASA/Ames Lunar Prospector Education Resources

Resource Title: NASA/Ames Lunar Prospector Education Resources

Description/Annotation: This website provides 25 hands-on science activities that are relevant to the Lunar Prospector Mission.

Web site Link: [Link to Resource](#)

More: Activities encourage an understanding of the basics of our solar system, address the Moon and the Earth/Moon system, relate to launch engineering issues, and address the future of space science.

Resources: Resources include:

- Teacher's Guide
- Lesson Plans
- Simple Models
- Hands-on Activities
- Internet-based classroom modules

Site Access Details: This site is publicly accessible.

Partners and Funding: NASA/Ames Research Center

Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Informal Academic Preparation](#)

National Academies Press (NAP)

Resource Title: National Academies Press (NAP)

Description/Annotation: The NAP publishes more than 200 books a year on a wide range of topics in science, engineering, and health, capturing the most authoritative views on important issues in science and health policy.

Web site Link: [Link to Resource](#)

More: The National Academies Press (NAP) was created by the National Academies to publish the reports issued by the [National Academy of Sciences](#), the [National Academy of Engineering](#), the [Institute of Medicine](#), and the [National Research Council](#), all operating under a charter granted by the Congress of the United States.

Over 4000 resources available on the site, all accessible via an array of full text searching and viewing tools.

Resources: Search and viewing tools include:

- **Reference Finder** - uses terms from content YOU supply to find similar resources.
- **Chapter Skim** - enables reader to get the gist of a chapter, and to focus in on particular pages of interest.
- **Web Search Builder** - allows you to build queries selecting pre-defined keywords and targeting specific resource directories (Google Web, Google Scholar, Google Books, Yahoo Web, and MSN Web)

Site Access Details: This site is publicly accessible.

Partners and Funding: The National Academy of Sciences was created by the federal government to be an adviser on scientific and technological matters. However, the Academy and its associated organizations are private, not governmental, organizations and do not receive direct federal appropriations for their work. Studies undertaken for the government by the National Academies usually are funded out of appropriations made available to federal agencies. The great majority of the studies carried out by the National Academies are at the request of government agencies.

Contact E-mail: customer_service@nap.edu

Last Update Date: Oct 20, 2009

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#)

National Academy of Engineering (NAE)

Resource Title: National Academy of Engineering (NAE)

Description/Annotation: The National Academy of Engineering (NAE) mission is to promote the technological welfare of the nation by marshaling the knowledge and insights of eminent members of the engineering profession. In addition to its role as advisor to the federal government, the NAE also conducts independent studies to examine important topics in engineering and technology.

Web site Link: [Link to Resource](#)

More: The National Academies perform an unparalleled public service by • bringing together committees of experts in all areas of scientific and technological endeavor. These experts serve pro bono to address critical national issues and give advice to the federal government and the public.

- Four organizations comprise the Academies: the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine and the National Research Council

Resources:

Major resources include:

- Programs including
 - Diversity of the Engineering Workforce
 - Center for the Advancement of Scholarship in Engineering Education(CASEE)
- Publications including
 - The Bridge - opinion and analysis on engineering research, education, and practice; science and technology policy; and the roles of engineering and technology in all aspects of society
 - NAE Program Reports
 - National Academies Press
- News - press releases, speeches, remarks, NAE calendar, engineering in the news
- Awards - The NAE dedicates more than \$1 million annually to recognize these leaders and to bring better understanding of the importance of engineering and engineering education to society.

Site Access Details:

The site had both publicly accessible areas and a members-only area.

Partners and Funding:

The NAE is a private, independent, nonprofit institution with more than 2,000 peer-elected members and foreign associates, senior professionals in business, academia, and government.

Contact Name:

Extensive list of contacts under Staff Directory

Last Update Date:

June 19, 2009

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

National Center for Science and Engineering Statistics (NCSES)

Resource Title:

National Center for Science and Engineering Statistics (NCSES)

Description/Annotation:

The National Center for Science and Engineering Statistics (NCSES) designs, supports, and directs periodic national surveys and performs a variety of other data collections and research.

NCSES is responsible for statistical data on research and development; the science and engineering workforce; U.S. competitiveness in science, engineering, technology, and R&D; and the condition and progress of STEM education in the United States.

Web site Link: [Link to Resource](#)

More: NCSES, formerly the Division of Science Resource Statistics, is one of 13 federal statistical agencies.

Resources: NCSES prepares about 30 statistical reports a year, including:

- Science and Engineering State Profiles
 - [2012](#)
 - [2006-2008](#)
- S&E Degrees, By Race/Ethnicity of Recipients (1990-2006, select years)
 - [Most current: 1997-2006](#)
- S&E Doctorate Awards (1994-2011, select years)
 - [Most current: 2011](#)
- Science & Engineering Indicators (1993-2012, select years)
 - [Most current: 2012](#)
- Women, Minorities, & Persons with Disabilities in S&E (1994-2011, select years)
 - [Most current: 2011](#)
- Characteristics of Scientists and Engineers in the United States (1993-2006, select years)
 - [Most current: 2006](#)
 - [Diversity in Science and Engineering Employment in Industry, March 2012](#)
- Characteristics of Doctoral Scientists and Engineers in the United States (1993-2008, select years)
 - [Most current: 2008](#)
- Characteristics of Recent Science and Engineering Graduates (1993-2008, select years)
 - [Most current: 2008](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: NCSES was established within NSF by Section 505 of the America COMPETES Reauthorization Act of 2010.

Contact E-mail: ncsesweb@nsf.gov

Last Update Date: July 30, 2013

Resource Type Categories: [Database/Tool](#) » [Research Tools Website/Portal](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention Career Factors](#) » [Retention](#)

National Center for Technological Literacy (NCTL)

- Resource Title: National Center for Technological Literacy (NCTL)
- Description/Annotation: Under the Science Museum of Boston, the NCTL provides guidance and resources to those who want to integrate engineering as a new discipline in schools and museums nationwide.
- Web site Link: [Link to Resource](#)
- More: The NCTL aims to introduce engineering and technology education into the K-12 curriculum and into exhibits and programs of science museums and other informal educational venues nationwide.
- Resources: K-12 education programs
- The Gateway to Engineering and Technology Education project involves a community of Massachusetts school district leaders in sharing best practices, experiencing hands-on engineering activities, and helping each other solve problems in order to implement the state's K-12 technology / engineering standards.
 - Evaluate, develop, test and standardize curricular materials for K-12 classrooms
 - Provide professional development for teachers about engineering and technology
- Museum and Online programs
- National Nanoscale Informal Science Education Network (NISE Network) of multiple science museums and research institutions. The NISE Network will collaboratively develop and distribute innovative approaches to engaging Americans in nanoscale science and engineering education, research, and technology.
 - **Star Wars: Where Science Meets Imagination** is the first traveling exhibit created by the Museum with engineering education at the heart of its mission. This exhibition, developed in cooperation with Lucasfilm Ltd., takes the fantasy technologies presented in the Star Wars movies as engineering design challenges and explores their potential as technologies that might someday be developed.
 - The Educator Resource Center (ERC) in the Lyman Library is a comprehensive resource that includes both a physical collection of materials housed in the Museum's Lyman Library and online resources to support grades K – 12.
- Advocacy and policy resources.

Site Access Details: This site is publicly accessible.

Partners and Funding: Funding comes from a long list of corporate, educational and individual supporters.

Contact E-mail: information@mos.org

Last Update Date: June 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

National Center for Women & Information Technology (NCWIT)

Resource Title: National Center for Women & Information Technology (NCWIT)

Description/Annotation: NCWIT was created to identify the reasons why there aren't more women in IT; identify what research and interventions can best attract and retain women to IT; leverage existing, effective efforts; and build a united, national platform for progress.

Web site Link: [Link to Resource](#)

More: NCWIT provides practices, research, outreach resources, awards, conferences, outreach and image campaigns and organizational guidance to support recruitment, retention and educational and institutional reform.

Resources: The NCWIT website has a wealth of resources which can be sorted by audience, goals, category, and resource type. NCWIT resources include:

- [Promising practices](#) - Living document from NCWIT social scientists presenting brief summaries of promising and effective practices to increase women's representation in computing.
- [Talking points](#) to help people talk about the issues
- [Programs-in-a-box](#) with downloadable program guides and materials covering topics such as mentoring, surveys and outreach
- [NCWIT statistics and reports](#)
- [Top 10 Ways](#)
- [Multimedia](#)

Site Access Details: The NCWIT site has both public and members-only resources.

Partners and Funding: NCWIT is a non-profit coalition of more than 170 prominent corporations, academic institutions, government agencies, and non-

profits working to increase women's participation in information technology (IT).

Contact E-mail: info@ncwit.org

Last Update Date: March 5, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

National Center for Women in Technology Programs-in-a-Box (NCWIT)

Resource Title: National Center for Women in Technology Programs-in-a-Box (NCWIT)

Description/Annotation: NCWIT's "Programs-in-a-Box" offer turnkey solutions to pressing issues facing the IT community. Programs-in-a-Box provide all the components necessary for quick and strategic action. Each Box includes instructions, letters, templates, slide presentations, and other resources designed for practical use by IT professionals.

Web site Link: [Link to Resource](#)

More: NCWIT is the National Center for Women & Information Technology. It is a coalition of over 200 prominent corporations, academic institutions, government agencies, and non-profits working to increase women's participation in information technology (IT).

Resources: Programs in a Box include:

1. For K12 teachers:

- Outreach in a Box: Discovering IT - targeted for middle school
- Computer Science: Unplug Your Curriculum - targeted for K12 students, specifically 9-14 years old.

2. For college, university academics and diversity program leaders:

- Survey in a Box: Student Experience of the Major - for undergraduates
- Roadshow in a Box: Capitalizing on Models for Outreach - targeted for those at universities and colleges involved in outreach
- Faculty Mentoring: Academic Women in Computing - targeted for computer science faculty

- Pipeline: Promoting Advancement of CS/IT Students from Two-Year to Four-Year Institutions
 - Pair Programing in a Box: The Power of Collaborative Learning - targeted for instructors of introductory college programming classes
3. For industry:
- Mentoring in a Box: Technical Women at Work - targeted for women in industry
 - International Women's Day in a Box: Raising Awareness, Igniting Change - targeted for those interested in promoting diversity in industry IT
 - Supervising in a Box - targeted for HR and managers of technical teams

Site Access Details: All programs in a box are publicly accessible, but registration is required to initiate each download.

Partners and Funding: Strategic Partners: NSF, Microsoft Investment Partners: Avaya, Pfizer, Bank of America

Last Update Date: July 1, 2013

Resource Type Categories: [Guide/Handbook Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#)

National Clearinghouse on Academic Worklife (NCAW)

Resource Title: National Clearinghouse on Academic Worklife (NCAW)

Description/Annotation: NCAW includes selected resources on all aspects of academic work and related issues: faculty careers, including tenure track and non tenure track faculty, benefits, climate and satisfaction, flexibility and work/life balance, policy development and policies that affect faculty, graduate students as future faculty, administrators' concerns, and more.

Web site Link: [Link to Resource](#)

More: Resources can be suggested by site visitors for inclusion in the Clearinghouse.

Resources: Resources include:

- Search interface providing access to articles, research & policy reports, policies, and demographics from 2000 on
- NCAW community

- Related Links to Associations and Organizations, Information Sources and Publications, Research Centers and Foundations, and Government Agencies

Site Access Details: This site is publicly accessible. A registration is required to participate in the NCAW community.

Partners and Funding: Developed at the University of Michigan's Center for the Education of Women, with support from the Alfred P. Sloan Foundation.

Contact E-mail: acadclearinghouse@umich.edu

Last Update Date: July 8, 2010

Resource Type Categories: [Database/Tool](#) » [Database Database/Tool](#) » [Directory Topical Categories: Career Factors Career Factors](#) » [Professional Development Career Factors](#) » [Tenure Policies & Practices](#)

National Engineers Week Foundation

Resource Title: National Engineers Week Foundation

Description/Annotation: The National Engineers Week Foundation is the global leader in attracting and cultivating the next generation of engineers and celebrating the engineering profession. The Foundation aims to prepare the next generation of talent by helping to remove the social, education and economic barriers that deter young students from engineering and technology education and careers. The Foundation delivers turnkey programs, toolkits and a variety of resources used by partners locally, nationally and internationally.

Web site Link: [Link to Resource](#)

More: The Foundation is a formal coalition of more than 100 professional societies, major corporations and government agencies.

Resources: The Foundation website contains information regarding the Coalition and Foundation programs, including:

- **Portfolio of Programs:**
 - Engineers Week
 - Diversity Council
 - Engineering Women
 - Discover Engineering
 - International Programs
- **News and Media:**
 - Newsletter
 - Press Releases
 - Events Calendar

- **All About Engineering:**
 - Types of Engineering
 - Statistics
 - Engineering Schools

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Foundation is managed by a Leadership Council and is funded by a number of corporate sponsors.

Last Update Date: July 28, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

National Institute for Women in Trades, Technology & Science (IWITTS)

Resource Title: National Institute for Women in Trades, Technology & Science (IWITTS)

Description/Annotation: National Institute for Women in Trades, Technology & Science (IWITTS) provides tools to help integrate women into male-dominated careers, including science, technology, and engineering. IWITTS offers training and assistance for educators and employers, publications, products, and technical assistance for women and industry.

Web site Link: [Link to Resource](#)

Resources: Resources include:

- Special sections directed toward educators, law enforcement, women and girls (middle school/high school), employers
- E-newsletter sign-up
- Research projects
- Multi-media products for sale such as training kits
- Link to womentechworld.org, an online forum for women to network and communicate with other women in male-dominated careers
- Proven practices collection - journal articles and proven practice case studies about recruiting and retaining women and girls in the technology classroom

Site Access Details: Free access to the general public.

Contact E-mail: <http://www.iwitts.org/about/contact-us>

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

National Report on 2001 ACT Assessment Scores; Selections from the 2001 National Score Report

Resource Title:	National Report on 2001 ACT Assessment Scores; Selections from the 2001 National Score Report
Description/Annotation:	This website is a listing of scoring tables of undergraduate student ACT scores by state, ethnic group, gender or some combination of the above. Additional data is available regarding student satisfaction and curriculum adequacy. Useful resource for compiling statistics related to ACT testing and relating to other variables.
Author Last Name:	ACT
Publication Date:	2001
Publication Title:	ACT News
Source:	ACT
Source Type:	Website

Resource Type Categories: Data and Statistics » Reports Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

National Science Board (NSB)

Resource Title:	National Science Board (NSB)
Description/Annotation:	National Science Board (NSB) is a government organization providing oversight of and establishing policies for the National Science Foundation (NSF). The NSB is also an advisory resource for the President and Congress on science and engineering research and education.
Web site Link:	Link to Resource
Resources:	<ul style="list-style-type: none">• Publications<ul style="list-style-type: none">• Science and Engineering Indicators (SEI) report every two years providing national and global quantitative data on science and engineering.• Annual awards• Committee Meeting actions/approvals, summaries and minutes (6 times a year)

Partners and Funding: Founded in 1950, the NSB is comprised of 24 members appointed by the President and approved by the Senate. Members serve 6 year terms with staggered term maturities and come from academia and business.

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Government

National Science Digital Library (NSDL)

Resource Title: National Science Digital Library (NSDL)

Description/Annotation: STEM-focused digital library funded by the U.S. National Science Foundation (NSF) to provide access to resources and tools that support innovations in teaching and learning at all levels of science, technology, engineering, and mathematics (STEM) education,

Web site Link: [Link to Resource](#)

More: [Subject-specific pathways](#) for Biological and Health Sciences; Engineering, Computing, and Technology; General Science and STEM; Geosciences; Mathematics; Physical Sciences; and Social Sciences.

NSDL seeks to serve a vital role as STEM educational cyberlearning for the nation, meeting the informational and technological needs of educators and learners at all levels.

Resources: Resources include:

- Topical resources from the NSDL and contributing organizations
- Science literacy maps for teachers and students relating concepts to resources
- (Apple) iTunes U access to the NSDL resources including videos, podcasts, educators' guides and other teaching and learning resources
- Blogs by experts
- Professional development resources such as articles, brown bags, web seminars and outreach materials
- NSDL Wiki for community submitted and annotated resources
- Science Refreshers for K-6 educators to locate interactive tutorials, diagrams, articles, and other materials to expand or update one's topical knowledge

- NSDL Publications including the bi-weekly NSDL Whiteboard report (newsletter) and NSDL annual reports

Site Access Details: This site is publicly accessible.

Partners and Funding: The NSDL is funded the the National Science Foundation (NSF).

Contact Name: Kaye Howe (Director)

Last Update Date: May 14, 2009

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Informal Academic Preparation Career Factors » Professional Development](#)

National Science Foundation's Merit Review Criteria: Review and Revisions

Resource Title: National Science Foundation's Merit Review Criteria: Review and Revisions

Description/Annotation: This 300-page report is the culmination of a thorough review by the National Science Board (NSB) Task Force on Merit Review to determine if the criteria used by the National Science Foundation (NSF) to evaluate all proposals since 1997 remain appropriate. The NSB also recognized that the America COMPETES Reauthorization Act of 2010 included a provision mandating the retention of the Broader Impacts criterion. Based on the Task Force's analyses, NSB concluded that the two current Merit Review Criteria of Intellectual Merit and Broader Impacts remain appropriate for evaluating NSF proposals, though with revisions. The revisions to the Criteria are described in the report, available in PDF format.

Author Last Name: National Science Board

Publisher: NSB

Publisher Location: Arlington, VA

Publication Date: 2011, Dec 14

Page Numbers: 1-340

Source: NSF

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Legal Considerations](#) [Career Factors](#) » [Organizational Culture](#)

National Women's Law Center (NWLC)

Resource Title: National Women's Law Center (NWLC)

Description/Annotation: The National Women's Law Center works to improve the lives of girls, women and families through legal and public policy initiatives.

Web site Link: [Link to Resource](#)

More: Initiatives include:

- Education program to ensure Title IX is enforced and to remove educational barriers for girls
- Employment program to ensure equal treatment of women in the workplace
- Family economic security program to advocate for "economically vulnerable women"
- Health and Reproductive Rights program to protect reproductive rights

Resources: Resources include:

- [Action Center](#) for email alerts and updates
- Publications offered free or for a nominal fee via an [Information Center](#)
- Multi-authored [Womenstake.org](#) blog
- [Topical webinars](#) and conference calls
- [Legal assistance](#) resources

Site Access Details: The site is publicly accessible.

Partners and Funding: In existence since 1972, the National Women's Law Center is funded by organizational and individual donations.

Contact E-mail: action@nwlc.org

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Navigating a Complex Landscape to Foster Greater Faculty and Student Diversity in Higher Education

Resource Title: Navigating a Complex Landscape to Foster Greater Faculty and Student Diversity in Higher Education

Description/Annotation: 242 page handbook from the American Association for the Advancement of Science (AAAS) and the Association of American Universities (AAU) offering in-depth, cross-referenced legal resources to help create, implement and sustain successful diversity programs.

Author Last Name: Burgoyne

Author First Name: Robert

Additional Author: Shaw

: Theodore M.

Additional Author: Dawson

: Ralph C.

Additional Author: Scheinkman

: Rena

Additional Author: Coleman

: Arthur L. (et al.)

Publisher: American Association for the Advancement of Science (+AAU)

Publisher Location: Washington, D.C.

Publication Date: 2010

Page Numbers: 242

Source: AAAS

Source Type: Full text, Sections can be downloaded separately

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Navigating Community College Transfer in Science, Technical, Engineering, and Mathematics Fields

Resource Title: Navigating Community College Transfer in Science, Technical, Engineering, and Mathematics Fields

Description/Annotation: Given financial barriers facing community college students today, and workforce projections in science, technical, engineering, and math (STEM) fields, the costs of unnecessary delays while

navigating transfer pathways are high. In this phenomenological study, we analyzed the delay experiences of 172 students (65% female) navigating community college transfer pathways in STEM fields in Massachusetts. When focusing on institutional delays, three central elements emerged: (a) informational setbacks from dissatisfactory advising, (b) imperfect program alignment with four-year institutions, and (c) college resource limitations. Students took unnecessary courses or could not get into courses in a timely manner, resulting in lost time, money, and credit. An accumulation of delays is particularly detrimental to STEM women and men, given the sequential nature of their programming. Implications for policy and practice are discussed. Funded by NSF GSE under award #0734000.

Author Last Name: Wai-Ling Packard
Author First Name: Becky
Additional Author: Gagnon
: Janelle L.
Additional Author: Senas
: Arleen J.
Publication Date: 2012
Page Numbers: 670-683
Publication Title: Community College Journal of Research and Practice
Volume: 36
Issue: 9
Source: Mount Holyoke College
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Publications by](#)
[Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Navigation-related Structural Change in the Hippocampi of Taxi Drivers

Resource Title: Navigation-related Structural Change in the Hippocampi of Taxi Drivers

Description/Annotation: The posterior hippocampi of taxi drivers were analyzed and found to be significantly larger than a control group of human beings. Furthermore, the size of the hippocampus directly correlated with the number of years of taxi driving experience. This confirmed the idea that the posterior hippocampus stores a spatial representation of the environment. The hippocampi seemed to enlarge regionally to accommodate the higher dependence upon navigation.

Author Last Name: Maguire
Author First Name: Eleanor A.
Additional Author: Gadian
: David G.
Additional Author: Johnsrude
: Ingrid S.
Additional Author: Good
: Catriona D.
Additional Author: Ashburner
: John
Publisher: National Academy of the Sciences
Publisher Location: Washington, D.C.
Publication Date: 2009, Jan
Page Numbers: 4398-4403
Publication Title: Proceedings of the National Academy of the Sciences
Volume: 97
Issue: 8
Source: PNAS
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

NCWIT Can Help with That: Academic Alliance Webinar #1 (NCWIT Resources for Recruiting and Retention)

Resource Title:	NCWIT Can Help with That: Academic Alliance Webinar #1 (NCWIT Resources for Recruiting and Retention)
Description/Annotation:	This 50-minute webinar is the inaugural webinar in the National Center for Women and Information Technology (NCWIT) Academic Alliance Webinar Series. This webinar features an introduction to NCWIT resources, specifically highlighting research based resources for recruiting and retaining female students in computing. The webinar also presents NCWIT resources offered to help academics and computing professionals reach into local schools and assess their efforts. The resource is available as a webinar recording.
Author Last Name:	Cphoon
Author First Name:	J. McGrath
Additional Author:	DuBow
:	Wendy
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2010, Nov
Source:	International Society for Technology in Education (ISTE)
Source Type:	Webinar Recording

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors » Retention](#) [Career Factors » Retention](#) [Webinars: ENGAGE in Engineering](#)

NCWIT Can Help with That: Academic Alliance Webinar #2 (Retaining Undergraduates in Computing)

Resource Title:	NCWIT Can Help with That: Academic Alliance Webinar #2 (Retaining Undergraduates in Computing)
Description/Annotation:	This 49-minute webinar is the second webinar in the National Center for Women & Information Technology (NCWIT)

Academic Alliance Webinar Series. This webinar examines ways to retain undergraduates in computing through mainstreamed interventions. The webinar discusses three practices that affect retention: pedagogy, curriculum and student support. The resource is available as a webinar recording.

Author Last Name: Barker
Author First Name: Lecia
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2011, Feb
Source: International Society for Technology in Education (ISTE)
Source Type: Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Educational Factors Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Educational Factors » Pedagogy & Instruction Educational Factors » Retention Webinars: ENGAGE in Engineering

NCWIT Can Help with That: Academic Alliance Webinar #3 (K-12 Outreach)

Resource Title: NCWIT Can Help with That: Academic Alliance Webinar #3 (K-12 Outreach)

Description/Annotation: This 60-minute webinar is the third in the National Center for Women & Information Technology (NCWIT) Academic Alliance Webinar Series. This webinar discusses attracting K-12 students to the field of computing. The webinar presents a summary, lessons learned, research results, and where to find resources for K-12 outreach. The resource is available as a webinar recording.

Author Last Name: Ericson
Author First Name: Barbara
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2011, Apr
Source: International Society for Technology in Education (ISTE)
Source Type: Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Educational Factors Career Factors » Mentoring Educational Factors » Retention Webinars: ENGAGE in Engineering

NCWIT Scorecard: A report on the status of women in information technology

Resource Title:	NCWIT Scorecard: A report on the status of women in information technology
Description/Annotation:	The NCWIT Scorecard is a status report on girls' and women's participation in computing and IT professions in the U.S. over time. The report uses current knowledge and research to provide a benchmark for measuring progress and identifying areas for improvement throughout the IT pipeline, from secondary education through workforce and innovation. The full report is available online in PDF and EZINE formats. Customizable powerpoint slides and charts (.JPG modules) are also available.
Author Last Name:	DuBow
Author First Name:	Wendy
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2011
Page Numbers:	1-62
Source:	NCWIT
Source Type:	Flash presentation

Resource Type Categories: Data and Statistics » Reports Webinar/Video Topical Categories: Career Factors Educational Factors Educational Factors » Retention Career Factors » Retention

NDSU Advance FORWARD: Challenges and Recommendations to Enhancing Recruitment, Retention, and Advancement of Faculty

Resource Title: NDSU Advance FORWARD: Challenges and Recommendations to Enhancing Recruitment, Retention, and Advancement of Faculty

Description/Annotation: The NDSU Advance FORWARD project seeks to develop and implement a comprehensive research-driven strategy to increase participation of women in all science and engineering faculty and academic administrative positions. Advance FORWARD builds on the earlier work of North Dakota State University's self-initiated FORWARD committee, a group of faculty and administrators who came together in 2002 out of a shared concern about the slow advancement of women faculty in science and engineering departments. Specifically, Advance FORWARD strives to improve the climate across campus, enhance faculty recruitment efforts, increase faculty retention and advancement, and open leadership opportunities. This paper discusses various challenges encountered while implementing the programs and offers recommendations so that other institutions interested in developing similar programs can avoid the same pitfalls. Funded by NSF ADVANCE under award #0811239.

Author Last Name: Bilen-Green

Author First Name: Canan

Additional Author: Birmingham

: Elizabeth

Additional Author: Burnett

: Ann

Additional Author: Green

: Roger

Publication Date: 2010

Publication Title: 2010 ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Professional Development Publications by Funder](#) [Career Factors](#) » [Retention](#)

Nerd Girls

Resource Title:	Nerd Girls
Description/Annotation:	Nerd Girls is a movement working to break the stigmas and stereotypes of women in engineering and to encourage girls to change their world through science, technology, engineering and math, while embracing their feminine power. The Nerd Girls website is an international online community that unites students, young professionals and anyone else who supports what the Nerd Girls are about.
Web site Link:	Link to Resource
More:	Nerd Girls was founded in 2000 by Dr. Karen Panetta, a professor of electrical and computer engineering at Tufts University.
Resources:	<p>The Nerd Girls website offers resources to help inspire girls/women in the STEM fields:</p> <ul style="list-style-type: none">• Blog - searchable by field• Profiles of real-life "Nerd Girls"• Links to Engineering organizations
Site Access Details:	This is a publicly accessible site.
Partners and Funding:	Nerd Girls is sponsored by Tufts University and the IEEE Education Partners Program.
Last Update Date:	June 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc](#) and [Not for Profits](#)

Networking and Access to Social Capital: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Resource Title:	Networking and Access to Social Capital: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field
Description/Annotation:	This 7-page briefing report from the National Center for Women and Information Technology (NCWIT) is part of the Entrepreneurial Report Series. This report provides a summary of research literature on the effect of social capital on women's underrepresentation among IT entrepreneurs. According to the

report, gender differences in networks are clear, but their impact on entrepreneurial behavior remains ambiguous. The full report is available in PDF format.

Author Last Name: Aspray
Author First Name: William
Additional Author: Cohoon
: J. McGrath
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2007, Mar
Page Numbers: 1-7
Publication Title: National Center for Women and Information Technology
Entrepreneurial Report Series
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development](#)

New Directions in Engineering Excellence: Building Career Awareness

Resource Title: New Directions in Engineering Excellence: Building Career Awareness

Description/Annotation: This booklet offers practical guidance for educators seeking ways to increase awareness of engineering as a career field to women – including women of color and those with physical disabilities – and to engage them in engineering-relevant coursework. It describes techniques that educators have found to work, evidence that education researchers have used to demonstrate success, and programs that serve as models to encourage women to begin their engineering education.

Author Last Name: CASEE
Publisher: National Academy of Engineering

Publication Date: 2009
Source: Barnes & Noble
Source Type: Abstract, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors » Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

New Directions in Engineering Excellence: Helping Students Succeed

Resource Title: New Directions in Engineering Excellence: Helping Students Succeed

Description/Annotation: This booklet presents practical advice for helping young women stay academically successful and well adjusted while studying the math, science, and engineering courses that lay the foundation for future careers as engineers. It complements a full series of resources addressing how educators can approach engineering education differently, to make it more attractive to a bigger pool of students. This booklet addresses how educators can help young women who choose to study engineering and related courses succeed along the way, through enrichment programs, support services, and out-of-class activities.

Author Last Name: CASEE

Publisher: National Academy of Engineering

Publication Date: 2009

Source: Barnes & Noble

Source Type: Abstract, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors » Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Educational Factors » Informal Academic Preparation](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

New Directions in Engineering Excellence: Keeping Students Engaged

Resource Title: New Directions in Engineering Excellence: Keeping Students Engaged

Description/Annotation: Booklet helps educators find practical ways to anticipate and address the factors that lead women – including women of color and those with physical disabilities – away from engineering-relevant coursework. The text describes techniques that other educators have found to work, evidence that education researchers have used to demonstrate success, and retention programs that serve as models to encourage women to continue their engineering education.

Author Last Name: CASEE

Publisher: National Academy of Engineering

Publication Date: 2009

Source: Barnes & Noble

Source Type: Abstract, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors » Retention](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

New Formulas for America's Workforce 2: Girls in Science and Engineering

Resource Title: New Formulas for America's Workforce 2: Girls in Science and Engineering

Description/Annotation: NSF's investment in projects to improve the representation of girls and women in the sciences, mathematics, engineering and technology, from mid-2002 through 2005.

Author Last Name: NSF

Publisher: National Science Foundation

Publication Date: 2007

Volume: NSF0660

Source: NSF

Source Type: Full text

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Career Factors » Leadership & Management Individual Beliefs and Behaviors » STEM Career Interest/Awareness

New Formulas for America's Workforce: Girls in Science and Engineering

Resource Title:	New Formulas for America's Workforce: Girls in Science and Engineering
Description/Annotation:	NSF "book" collects and presents the body of research resulting from 10 years of investments from the Gender Diversity in STEM Education NSF program (1993-2002). Visual presentation of programs as periodic table, grouping like programs. Qualitative program comments such as lessons learned along with program grant specifics including subjective keywords.
Author Last Name:	NSF
Publisher:	National Science Foundation
Publisher Location:	Arlington, VA
Publication Date:	2003
Source:	NSF
Source Type:	Full text

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Career Factors » Hiring Practices Individual Beliefs and Behaviors Career Factors » Leadership & Management Individual Beliefs and Behaviors » STEM Career Interest/Awareness

New Ideas from the ADVANCE Community: Using a Dialogical Change Process and Strategic Planning to Diversify Academic Departments

Resource Title:	New Ideas from the ADVANCE Community: Using a Dialogical Change Process and Strategic Planning to Diversify Academic Departments
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Description/Annotation: This 13-page paper from the 2012 WEPAN National Conference describes an intervention which engages academic departments in a dialogical change process to promote collective engagement in institutional transformation and the achievement of gender-equity and diversity goals. The paper provides the results from a pilot implementation of this process in two departments at a large public institution. The full paper is available in PDF format.

Author Last Name: Nolan

Author First Name: Jim

Additional Author: Jackson

: J. Kasi

Additional Author: Latimer

: Melissa

Additional Author: Tower

: Leslie

Additional Author: Borres

: Awilda

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-13

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

New Image for Computing: Report on Market Research

Resource Title: New Image for Computing: Report on Market Research

Description/Annotation: This report is the first phase (market research an initial message testing) of a larger study aimed at improving the image of computer science among high school students, with particular emphasis on issues related to gender and ethnic disparities, and increasing participation at the post-secondary level. The findings indicate little racial/ethnic difference in attitude of college-bound

students toward computer science, but significant gender differences in attitude among college-bound students. Moreover, computer science was held in high regard by college-bound African American and Hispanic males. Data was obtained from a national online survey of college-bound high school students that mirrored the gender and ethnic make-up of incoming US college freshman.

Author Last Name: Benyo
Author First Name: Julie
Additional Author: White
:
John
Publisher: WGBH Educational Foundation and the Association for Computing Machinery
Publication Date: 2009, Jun
Page Numbers: 21
Publication Title: New Image for Computing: Report on Market Research
Source: ACM
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

New Perspectives on Mentoring

Resource Title: New Perspectives on Mentoring
Description/Annotation: Mentoring is typically defined as a relationship between an experienced and a less experienced person in which the mentor provides guidance, advice, support, and feedback to the protégé. The Information Age demands a wide range of cognitive, interpersonal, and technical skills, and mentoring is changing to cope with these expanded needs. This Digest looks at new forms of and perspectives on mentoring and the kinds of learning that result from mentoring relationships.

Author Last Name: Kerka

Author First Name: Sandra
Publisher: ERIC
Publication Date: 1998
Publication Title: ERIC Digest
Database Name: ERIC
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

New SAT Could Shrink Test's Gender Gap

Resource Title:	New SAT Could Shrink Test's Gender Gap
Description/Annotation:	A brief online article that discusses the potential for a new version of the SAT to close the gender gap in college entrance exam performance. Along with adding a third section to the exam, the new version was examined for gender bias leads to an inaccurate picture of women's potential for success in college. Also contains statistics on the gender gap in performance on the SAT and the writing section in particular, and a brief overview of women's performance in school in general.
Author Last Name:	Alaimo
Author First Name:	Kara
Publisher:	Women's E News
Publisher Location:	New York
Publication Date:	2005, Mar 15
Publication Title:	Women's E News
Source:	Women's E News
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

New Study Reveals Distressing Trends in Work-Life Balance for Women and Men in STEM Fields

Resource Title:	New Study Reveals Distressing Trends in Work-Life Balance for Women and Men in STEM Fields
Description/Annotation:	This article from "Science Progress" discusses results of a survey by the Association for Women in Science (AWIS) which offers an international snapshot of perceptions and attitudes on work-life satisfaction among women and men in the STEM workforce. According to results of the survey, women are more likely than men to report that work-life integration difficulties have negatively impacted their careers. The article also introduces current efforts launched by federal agencies to raise awareness

about the importance of work-life integration in the sciences and engineering.

Author Last Name: Popejoy
Author First Name: Alice
Publisher: Center for American Progress
Publisher Location: Washington, DC
Publication Date: 2012, Mar
Publication Title: Science Progress: Where Science, Technology, and Policy Meet
Source: Science Progress
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Professional Development](#)

New Tools for America's Workforce: Girls in Science and Engineering

Resource Title: New Tools for America's Workforce: Girls in Science and Engineering

Description/Annotation: New Tools is the third volume in the New Formulas for America's Workforce series. This publication is a catalog of the products created by the NSF Program for Women and Girls grant projects from 1993 through 2005. These products include CDs, DVDs, brochures, program guides, special reports, and informational Web sites.

Author Last Name: NSF
Publisher: National Science Foundation
Publication Date: 2006
Page Numbers: 68
Publication Title: NSF 06-59
Source: NSF
Source Type: Full text

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors Educational Factors Career Factors » Professional Development Educational Factors » Retention Career Factors » Retention](#)

Nice Girls Don't Ask

Resource Title: Nice Girls Don't Ask

Description/Annotation: This article examines one of the reasons women and men are still treated unfairly in the workplace- men negotiate more. Three separate studies were done that all showed men are more likely to negotiate than women. The reasons are discussed, and suggestions are made for management to address the problem. Interesting research for women and men in any situations.

Author Last Name: Babcock

Author First Name: Linda

Additional Author: Laschever

:

Sara

Additional Author: Gelfand

:

Michele

Additional Author: Small

:

Deborah

Publisher: Graduate School of Business Administration

Publisher Location: Boston, MA

Publication Date: 2003, Oct

Page Numbers: 1-2

Publication Title: Harvard Business Review

Source: Harvard Business Review

Source Type: Full Text

Resource Type Categories: [Articles/Reports » Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Negotiation Skills](#)

NIH Director's Pioneer Awards: Could the Selection Process Be Biased against Women?

Resource Title: NIH Director's Pioneer Awards: Could the Selection Process Be Biased against Women?

Description/Annotation: Analyzes process used to select National Institutes of Health (NIH) Director's Pioneer Award to assess if there are aspects about the process of nomination, evaluation, and selection that inadvertently favored men. Presents evidence to suggest that women scientists would be disadvantaged by the following components of the NIH Director's Pioneer Award initiative. Encourages the NIH to embark on self-study and to educate all reviewers regarding an evidence-based approach to gender and evaluation.

Author Last Name: Carnes

Author First Name: Molly

Additional Author: Geller

: Stacie

Additional Author: Fine

: Evelyn

Additional Author: Sheridan

: Jennifer

Additional Author: Handelsman

: Jo

Publication Date: 2005

Page Numbers: 684-691

Publication Title: Journal of Women's Health

Volume: 14

Issue: 8

Source: WISELI

Source Type: Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

Nobel Prize Women in Science

Resource Title:	Nobel Prize Women in Science
Description/Annotation:	A book of biographical essays of 14 women in science who received the Nobel Prize in Science (only 9 since 1901) or were crucial to someone else receiving it. A sobering yet inspiring glimpse into the barriers women faced and the personal sacrifices they made for the work they loved. Interesting historical perspective on issues such as restrictive or non-admission policies at universities for women interested in studying science. For everyone interested in science - especially academics and women scientists.
Author Last Name:	McGrayne
Author First Name:	Sharon B.
Publisher:	Joseph Henry Press
Publisher Location:	Washington, D.C.
Publication Date:	2001, Mar
Page Numbers:	1-464
Source:	NAP
Database Name:	The National Academies Press
Source Type:	Description Reviews, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Non-traditional Career Preparation: Root Causes & Strategies

Resource Title:	Non-traditional Career Preparation: Root Causes & Strategies
Description/Annotation:	48 page, two-part report identifying research and effective strategies related to recruiting and retaining students into non-traditional careers. Part I contains a reference table of root causes, applicable theories and practical strategies. Part II contains the evidence for each theory, effective practices and resources.

Author Last Name: Reha
Author First Name: Lynn
Additional Author: Lufkin
:
Additional Author: Harrison
:
Additional Author: Laurie
Publisher: National Alliance for Partnerships in Equity, National Alliance for Partnerships in Equity Education Foundation
Publisher Location: Cochranville, PA
Publication Date: 2009
Page Numbers: 48
Source: NAPE
Source Type: [Link to Full Text](#)

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Nonparametric Survival Analysis of the Loss Rate of Undergraduate Engineering Students

Resource Title: Nonparametric Survival Analysis of the Loss Rate of Undergraduate Engineering Students

Description/Annotation: The impact of cohort, gender, ethnicity, and SAT math and verbal scores on the loss rate of undergraduate engineering students was investigated to answer the questions: Does the profile of risk of dropout differ among groups with different backgrounds? When are students most likely to leave engineering? Which SAT scores better predict the risk of dropout? Results indicated that white or female students tend to leave engineering earlier than other populations. Engineering students leave engineering during the third semester the most, although students who have an SAT math score less than 550 tend to leave engineering during the second semester. SAT math score better predicts the risk of dropout than SAT verbal score. Funded by NSF GSE under awards #0734085 & #0734062.

Author Last Name: Youngkyoung

Author First Name: Min
Additional Author: Zhang
: Guili
Additional Author: Long
: Russell A.
Additional Author: Anderson
: Timothy J.
Additional Author: Ohland
: Matthew W.
Publication Date: 2011
Page Numbers: 349-373
Publication Title: Journal of Engineering Education
Volume: 100
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Northeast Meets Northwest Women in Technology Project

Resource Title: Northeast Meets Northwest Women in Technology Project

Description/Annotation: This paper discusses the “Northeast Meets Northwest Women in Technology Project”, which encourages young women to consider careers in technology and engineering by direct exposure to a complex problem in industry. The project partnered women in high school from Washington and Massachusetts, high school teachers, an engineer from Texas Instruments, and an engineering advisor from Western Washington University. The students’ objective was to solve an on-going problem for Texas Instruments at one of their manufacturing facilities. The problem-based

learning project created an opportunity for students on the team to investigate engineering as a career option.

Author Last Name: Hoekstra
Author First Name: Nicole
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Career Factors](#) » [Mentoring](#)

Not All Women Leave! Reflections of a Cohort of "Stayers" in Civil Engineering

Resource Title: Not All Women Leave! Reflections of a Cohort of "Stayers" in Civil Engineering

Description/Annotation: This 14-page paper reports on a recent study of the careers of all female graduates from civil engineering at an Australian technical university. The study found that a much higher proportion of female graduates had remained in the profession than would be expected. Despite the cohort reporting higher rates of parental and other care responsibilities than typically found in engineering women, the group were more satisfied with their workplaces and jobs as a whole than the respondents of a comparative national survey of women engineers in Australia in 2007. The reasons for this satisfaction and retention are explored with the hope that these may provide inspiration for other women engineers and their employers. The full paper is available in PDF format.

Author Last Name: Ayre
Author First Name: Mary
Additional Author: Mills
:
Additional Author: Gill
:
Judith

Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2011
Page Numbers: 14
Publication Title: 118th ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

NSF 2011 Joint Annual Meeting (JAM11): Inclusive Excellence

Resource Title: NSF 2011 Joint Annual Meeting (JAM11): Inclusive Excellence

Description/Annotation: The Joint Annual Meeting is a conference held by the Division of Human Resource Development (HRD) within the NSF Directorate for Education and Human Resources (EHR). Principal investigators and the leadership teams of HRD Awards gathered in Washington, DC, in June 2011 to support and encourage collaboration among researchers, educators, and administrators; to leverage resources across projects; and to further advance the missions of NSF, EHR, and HRD. Post-meeting materials, such as program agendas and presentations, are available as downloadable files.

Web site Link: [Link to Resource](#)

More: JAM11 occurred at the Washington Hilton Hotel in Washington, DC, from June 6 through June 8, 2011.

Resources: The JAM11 website contains conference information and post-meeting materials including:

- Staff and participants
- Breakout session presentations
- Program agenda
- Keynote speaker biographies
- Professional development presentations and agenda

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: The Division of Human Resource Development (HRD) serves as a focal point for NSF's agency-wide commitment to enhancing the quality and excellence of STEM education and research through broadening participation by historically underrepresented groups: minorities, women, and persons with disabilities. HRD is run by a 32-person staff and is overseen by an advisory committee for the Directorate for Education and Human Resources.

Contact Name: Chantalle Hinton

Contact E-mail: JAM11@ms2kplus.com

Last Update Date: July 23, 2013

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings Website/Portal](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

NSF Survey of Earned Doctorates (SED) Tabulation Engine

Resource Title: NSF Survey of Earned Doctorates (SED) Tabulation Engine

Description/Annotation: The SED Tabulation Engine is a pilot data tool that provides statistical data for the number and characteristics of individuals receiving research doctoral degrees from all accredited U.S. institutions from 2006 through 2009. The SED Tabulation engine provides access to selected variables from the NSF's Survey of Earned Doctorates (SED), including year, gender, race/ethnicity, discipline, control, and citizenship. The tabulation engine uses multiple programs to create data tables and provide cell suppression on a real-time basis.

Web site Link: [Link to Resource](#)

More: The following SED variables are available in the Tabulation Engine • to create data tables:

- Year of doctorate
- Institutional control (Public/private)
- Gender
- Carnegie classification
- Citizenship
- Race/Ethnicity
- Discipline

Site Access Details: This site provides data to the public free of charge. Registration is not required to access information.

Partners and Funding: The SED Tabulation Engine was developed by NSF through a contract to NORC at the University of Chicago. The SED is sponsored by the following 6 federal agencies: National Science Foundation (NSF), National Institutes of Health (NIH), U.S. Department of Education (USED), U.S. Department of Agriculture (USDA), National Endowment for the Humanities (NEH), and National Aeronautics and Space Administration (NASA). The National Center for Science and Engineering Statistics (NCSES) of NSF monitors the contract to conduct the SED.

Contact E-mail: ncses@norc.org

Last Update Date: July 23, 2013

Resource Type Categories: [Database/Tool](#) » [Database Database/Tool](#) » [Surveys Topical Categories: Educational Factors Educational Factors](#) » [Formal Academic Preparation](#)

NSF: ADVANCE program

Resource Title: NSF: ADVANCE program

Description/Annotation: ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE). The goal of the ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science, technology, engineering and mathematics (STEM) careers, thereby contributing to the development of a more diverse science and engineering workforce.

Web site Link: [Link to Resource](#)

More: ADVANCE is a NSF program initiative created in 2001 designed to increase the inclusion and advancement of women in science, technology, engineering and mathematics (STEM) careers by addressing the academic programs and environments that prepare women for STEM careers.

The program has three funding areas.

1. Institutional Transformation (IT) awards support systemic organizational approaches in higher education that will result in increasing the participation and advancement of women in STEM academic careers.

2. Institutional Transformation Catalyst (IT-Catalyst) awards support organizational self-assessment activities that will result in issue identification and resolution of barriers in the recruitment, retention and promotion of women faculty in STEM academics.

3. Partnerships for Adaptation, Implementation, and Dissemination (PAID) awards support the extensibility of materials, tools, research and practices that have been demonstrated as effective in increasing the participation and advancement of women in STEM academic careers.

Resources:

Site Topics include:

- [Portfolio Overview](#)
- Awardee websites
- Abstracts of awards including award type, organization, principal investigator, award amount and program start date.
- Calendar of program-related events

Site Access Details:

The site is a freely accessible site from the U.S. Government.

Partners and Funding:

The ADVANCE initiative is a part of the Education and Workforce program from the NSF aimed at preparing professionals in computing and information technologies.

Contact Name:

Kelly Mack

Contact E-mail:

ADVANCE@nsf.gov

Last Update Date:

August 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Oakland Program Aims to Pique Girls' Interest in Science, Tech Careers

Resource Title:

Oakland Program Aims to Pique Girls' Interest in Science, Tech Careers

Description/Annotation:

This 9-minute video from PBS NewsHour features correspondent Spencer Michels report on Techbridge, an after-school program based in Oakland, CA. As part of the NewsHour's American Graduate series, this newscast tells how Techbridge shows hundreds

of female students a path to pursuing careers in science and technology, while also trying to minimize the chances of them dropping out of school.

Web site Link:

[Link to Resource](#)

More:

This newscast first aired on December 27, 2011, on PBS.

Resources:

This resource includes a 9-minute video as well as a full transcript of the newscast.

The website also includes links to a multitude of PBS NewsHour resources, including:

- Topics
- Video
- Recent Programs
- Teacher Resources
- The Rundown (News Blog)
- Recent Headlines

Site Access Details:

This is a publicly accessible site.

Partners and Funding:

PBS NewsHour is produced by MacNeil/Lehrer Productions and is funded by the John S. and James L. Knight Foundation, BNSF Railway, Intel, and The Corporation for Public Broadcasting.

Contact E-mail:

onlineda@newshour.org

Last Update Date:

2012, Feb 13

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Obstacles and Solutions for Underrepresented Minorities in Technology

Resource Title:

Obstacles and Solutions for Underrepresented Minorities in Technology

Description/Annotation:

This study examined diversity at seven Silicon Valley high-tech industries. It is known that underrepresented minorities make up only a fraction of the majors in technical degrees programs. Among the findings of this study: the percentage of underrepresented minorities in engineering and technical staff positions was approximately one-third that of those receiving degrees in these fields; the percentage of these minorities

decreases even further as you climb the corporate ladder in these companies. Lastly, the study found that many of these minorities quit their jobs because of the lack of diversity. In fact over half of the minority women in this study were wanting to do just that.

Author Last Name: Simard
Author First Name: Caroline
Publisher: Anita Borg Institute for Women and Technology
Publication Date: 2009
Page Numbers: 44
Source: ABI
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Educational Factors](#) [Career Factors](#) » [Employment Educational Factors](#) » [Formal Academic Preparation Career Factors](#) » [Leadership & Management Career Factors](#) » [Retention](#)

Obstacles as Challenges: Retention of Female Engineering Students in Mexico

Resource Title: Obstacles as Challenges: Retention of Female Engineering Students in Mexico

Description/Annotation: As part of a larger study examining the experiences of female engineering students in Mexico, the purpose of this qualitative study was to explore the experiences of women college students in engineering programs in Mexico and to understand how the students reframe their experiences and remain in their programs. This study is set in a particular social context where, although the proportion of women in college has achieved parity with men, in some college programs such as engineering the proportion of males is still far greater than females. Only 24% of engineering students are female, while women constitute 50% of the total enrollment in higher education institutions in Mexico. It is thus important to understand how female engineering students who have persisted perceive their experiences in college. This study focused on the experiences and strengths of women in engineering programs in Mexico that helped them remain in their programs.

Author Last Name: Villa

Author First Name: Carmen
Additional Author: Clark
:
Additional Author: Sandlin
:
Jennifer
Publication Date: 2009
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Occupational matching into science and technology jobs: gender-based differences

Resource Title: Occupational matching into science and technology jobs: gender-based differences

Description/Annotation: This analysis of mid-career STEM workers finds that significant gender-based differences exist in the role that education and other factors play in occupational matching.

Author Last Name: Srinivas
Author First Name: Sumati
Publication Date: 2011, Jul
Page Numbers: 146-155
Publication Title: New Technology, Work and Employment
Volume: 26
Issue: 2
Source: Wiley
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Organizational Culture](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Occupational Outlook Handbook, 2012-13 Edition

Resource Title: Occupational Outlook Handbook, 2012-13 Edition

Description/Annotation: The United States Department of Labor, Bureau of Labor Statistics, 2012-13 edition of the Occupational Outlook Handbook (OOH) profiles hundreds of occupations and describe what they do, work environment, and pay. The engineering profiles include the nature of the work, job descriptions of different types of engineers, required training, job outlook, projections, earnings, and sources of additional information.

Web site Link: [Link to Resource](#)

More: For each engineering subfield, the OOH website provides: •

- Occupation Quick Facts
- What They Do
- Work Environment
- How to Become One
- Pay
- Job Outlook
- Similar Occupations
- Contacts for More Info

Resources: The OOH contains a wealth of resources pertaining to occupational data and statistics, including:

- [Occupation Finder](#)
- [OOH FAQs](#)
- [Highest Paying Occupations](#)
- [Fastest Growing Occupations](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: The OOH is published by the U.S. Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections.

Contact E-mail: blsdata_staff@bls.gov

Last Update Date: July 28, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) [Database/Tool](#) » [Directory](#) [Data and Statistics](#) » [Reports](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Off-Ramp - or Dead End?

Resource Title:	Off-Ramp - or Dead End?
Description/Annotation:	A fictional case study illustrates the dilemma women often face when trying to balance their family with their career. Advice on what to do when weighing the decision to cut back or leave your job, and how to manage management when they seem unsupportive or even threatening. For industry and the workplace.
Author Last Name:	Esarey
Author First Name:	Sharman
Additional Author:	Haslberger
:	Arno
Publisher:	Harvard Business School Publishing
Publisher Location:	Boston, MA
Publication Date:	2007, Feb
Page Numbers:	57-62
Publication Title:	Harvard Business Review
Volume:	85
Issue:	2
Source:	Harvard Business Review
Source Type:	Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

Off-Ramps and On-Ramps: Keeping Talented Women on the Road to Success

Resource Title:	Off-Ramps and On-Ramps: Keeping Talented Women on the Road to Success
Description/Annotation:	A 13-page article by Sylvia Hewlett, Founder and President of Center for Work-Life Policy, and Carolyn Buck Luce, in top management with Ernst & Young examining how companies can retain talented women even when they leave the workforce

temporarily (off-ramping). This opt-out phenomenon creates a brain drain that is damaging to industries, and possibly preventable. The authors explore ways companies can offer alternatives to women so that when they are ready to return to the workforce (on-ramping) it will be an easier transition; or ways of creating options other than full time to allow women to remain in the workforce while meeting necessary family or other obligations. Valuable research for industry, the workforce, and women.

Author Last Name: Hewlett
Author First Name: Sylvia A.
Additional Author: Luce
:
: Carolyn B.
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2005, Mar
Page Numbers: 1-13
Publication Title: Harvard Business Review
Volume: 43
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Offer Computing Workshops and Camps: They Benefit Both Students and the Teachers Who Offer Them

Resource Title: Offer Computing Workshops and Camps: They Benefit Both Students and the Teachers Who Offer Them

Description/Annotation: This 2-page guide for computer science teachers includes ideas and strategies for offering computer workshops and camps. The guide offers tips for partnering, existing curriculum, and materials for implementation. The guide is available in PDF format.

Author Last Name: NCWIT Social Science Team

Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2009, Oct
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Office of Science and Technology Policy

Resource Title: Office of Science and Technology Policy

Description/Annotation: Established in 1976 by Congress to advise the President/Executive Office on the effects of science and technology on domestic and international affairs. Also leads interagency efforts to develop and implement sound science and technology policies and budgets, and to work with the private sector, state and local governments, the science and higher education communities, and other nations toward this end.

Web site Link: [Link to Resource](#)

More:

- [National Science and Technology Council \(NSTC\)](#) - Cabinet-level Council chaired by Pres. Obama and co-chaired by the OSTP Director; principal means within the executive branch to coordinate science and technology policy across the diverse entities that make up the Federal research and development enterprise.
- Administers the [President's Council of Advisors on Science and Technology \(PCAST\)](#) - created by Pres. Obama in 2009, this group consists of scientists and engineers who make policy recommendations related to science, technology and innovation as it pertains to strengthening the U.S. economy.

Resources: Site resources include:

- [OSTP Blog](#)
- [STEM Education Budget](#) (actual budgets for two historical years and projected budget for one year)
- Issues addressed by OSTP include Science, Technology, Energy/Environment, National Security and International Affairs

Site Access Details: This site is publicly accessible.
Partners and Funding: U.S. Government site.
Contact Name: John P. Holdren, Director
Last Update Date: June 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness

On Being A Mentor: A Guide for Higher Education Faculty

Resource Title: On Being A Mentor: A Guide for Higher Education Faculty

Description/Annotation: A guide for higher education faculty in mentoring students and junior faculty by a well known expert in clinical psychology and graduate mentorship . The author gives advice in managing mentor relationships and measuring outcomes. He believes "intentional and deliberate" mentoring is essential in improving a student's educational experience and chance for success. The book includes the benefits of mentoring, methods, case studies, and advice on particular topics such as mentoring specific populations. Excellent information for higher education faculty, students, and department chairs and deans who wish to encourage a positive mentoring culture at their institutions.

Author Last Name: Johnson

Author First Name: Brad W.

Publisher: Lawrence Erlbaum Associates

Publisher Location: Mahwah, NJ

Publication Date: 2006, Aug

Page Numbers: 1-272

Source: Amazon

Source Type: Available for sale

Resource Type Categories: Guide/Handbook Topical Categories: Career Factors Educational Factors Educational Factors » Faculty Student Interaction Career Factors » Mentoring

On Belay: Peer-Mentoring and Adventure Education for Women Faculty in Engineering

Resource Title: On Belay: Peer-Mentoring and Adventure Education for Women Faculty in Engineering

Description/Annotation: Six-page article evaluates an adventure activity designed to encourage peer mentoring within female engineering faculty members. Participants were especially interested in informal interactions with senior women faculty and women deans. Electronic peer-mentoring continued after the activity.

Author Last Name: Chesler

Author First Name: Naomi

Additional Author: Single

: Peg

Additional Author: Mikic

: Borjana

Publisher: American Society for Engineering Education (ASEE)

Publication Date: 2003, Jul

Page Numbers: 257-262

Publication Title: Journal of Engineering Education

Volume: 92

Issue: 3

Source: University of Wisconsin-Madison

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

On Belay: Peer-Mentoring and Adventure Education for Women Faculty in Engineering

Resource Title: On Belay: Peer-Mentoring and Adventure Education for Women Faculty in Engineering

Description/Annotation: Intervention program for women engineering faculty using adventure education from Outward Bound to foster peer mentoring, networking and role modeling. Post workshop results show short term positive effects in confidence, leadership and trust.

Author Last Name: Chesler

Author First Name: Naomi C.

Additional Author: Single

: Peg Boyle

Additional Author: Mikic

: Borjana

Publication Date: 2003, Jul

Page Numbers: 257-262

Publication Title: Journal of Engineering Education

Source: University of Wisconsin-Madison

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

On Campus With Women (OCWW)

Resource Title: On Campus With Women (OCWW)

Description/Annotation: OCWW is the magazine of the Association of American Colleges and Universities (AAC&U)'s Program on the Status and Education of Women. OCWW provides readers with the most up-to-date information on women in higher education. It focuses on women's leadership, the campus climate, curriculum and pedagogy, and new research and data on women.

Web site Link: [Link to Resource](#)

More: OCWW is available in both online and print formats.

Resources: The OCWW website provides articles from the current and archived issues, as well as:

- [Links](#) to other organizations focused on the advancement of women
- Conference information
- Suggested reading

Site Access Details: This is a publicly accessible site.

Partners and Funding: OCWW is sponsored by AAC&U's Program on the Status and Education of Women.

Contact Name: Kathryn Peltier Campbell

Contact E-mail: campbell@aacu.org

Last Update Date: July 27, 2013

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

On Hiring Science Faculty with Education Specialties for Your Science (Not Education) Department

Resource Title: On Hiring Science Faculty with Education Specialties for Your Science (Not Education) Department

Description/Annotation: This article highlights an issue in science education facing many university and college science departments: hiring faculty who can bring to the department specialized expertise in science education. With increased attention on the scholarship of teaching and on research on teaching and learning approaches unique to individual science disciplines, many science departments find themselves exploring the hiring of a faculty member who is both a scientist by training and a specialist in science education. Although a relatively recent idea in most biology departments, it is increasingly common to find biology, chemistry, geosciences, and physics educators in science departments in colleges across the country. As the visibility of these positions grows, more administrators and faculty in science departments are posing variations on the following questions: How can our science department hire faculty members with expertise in the teaching and learning of our scientific discipline? What roles could this individual play in our department? What background and training would we expect this individual to have? How would the responsibilities for a “science educator” position in our department compare with those of other faculty members? And how do we begin to facilitate a conversation among our science

faculty about hiring a specialist in education for our science department? Funded by NSF GSE under award #0337949.

Author Last Name: Bush
Author First Name: S.D.
Additional Author: Pelaez
:
Additional Author: Rudd
:
Additional Author: Stevens
:
Additional Author: William
:
Publication Date: 2006
Page Numbers: 297-305
Publication Title: CBE- Life Sciences Education
Volume: 5
Issue: 4
Source: Life Sciences Education
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

On or Off the Tenure Track: The Work Lives of Women Engineering and Technology Faculty

Resource Title: On or Off the Tenure Track: The Work Lives of Women Engineering and Technology Faculty

Description/Annotation: Using data from a survey of women faculty members of the American Society for Engineering Education, this study examines the work-life balance and job satisfaction of women engineering and technology faculty both on and off the tenure track. Findings

indicate that many women faculty fear the consequences of having children before tenure. In response, they may be opting out of the race for tenure in order to achieve what they perceive as a more desirable work-life balance by choosing part-time or nontenure-track academic positions. Recommendations are offered that would encourage women to pursue and remain in tenure-track positions without sacrificing their work-life balance.

Author Last Name: Birmingham
Author First Name: Stacy G.
Additional Author: Wasburn
:
Mara H.
Publication Date: 2008
Page Numbers: 411-425
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

On the gender orientation of the design task domain: empirical study results

Resource Title: On the gender orientation of the design task domain: empirical study results

Description/Annotation: This paper is a sequel to the FIE conference paper published in 2002, which highlighted the potential effect of the gender orientation of the product design task domain on the performance of design teams with different gender compositions. Building on the previous work, this study presents a designed experiment where reasons underlying the perceived gender orientation of the task domain were studied using six sections of an introductory engineering course during Fall 2003. This paper reveals survey study results of the study focusing on understanding task domain's

gender orientation. The major finding of the study is that when a task domain is deemed favoring a gender, the reasons for doing so are related to the gender associations of the institutions, objects, actions, and related knowledge. This finding's implications are that if a task's domain is framed in a way to neutralize the gender orientations, a more equitable education environment can be established both for male and female students.

Author Last Name: Okudan
Author First Name: G.E.
Additional Author: Mohammed
:
Publication Date: 2004
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Organizational Culture](#)

On the gender orientation of the product design task

Resource Title: On the gender orientation of the product design task

Description/Annotation: This study highlights the potential effect of the gender orientation of the product design task on the performance of design teams with different gender compositions. Results of an experiment conducted at the Pennsylvania State University are also presented. Design team's gender composition, average of team members' cumulative grade point average (GPA), design project topic, average contribution level and the meeting time for the class were investigated for their effects on the performance of design teams via a multiple regression study.

Author Last Name: Okudan
Author First Name: G.E.
Publication Date: 2002
Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Career Factors » Organizational Culture

On the Market: Surviving the Academic Job Search

Resource Title: On the Market: Surviving the Academic Job Search
Description/Annotation: Book containing essays from PhDs about the their job searches in academia. Not always encouraging, this book attempts to give a realistic picture from several points of view. For academics.
Author Last Name: Boufis
Author First Name: Christina
Additional Author: Olse
: Victoria C.
Publisher: Riverhead Trade
Publisher Location: New York, NY
Publication Date: 1997
Page Numbers: 1-382
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Hiring Practices Career Factors » Professional Development

On the Outskirts of Engineering: Learning Identity, Gender, and Power via Engineering Practice

Resource Title: On the Outskirts of Engineering: Learning Identity, Gender, and Power via Engineering Practice

Description/Annotation: On the Outskirts of Engineering: Learning Identity, Gender, and Power via Engineering Practice falls at the intersection of research about women in sites of technical practice and ethnographic studies of learning in communities of practice. Grounded in long-term participation on student teams completing real-world projects for industry and government clients, Outskirts provides an insider look at forms of engineering practice - the cultural production of engineer identity, of the ways that gender is made real in such sites of practice, and of power relations that emerge in response to enculturated practices that organize everyday life. Outskirts contributes to understanding cultural obduracy and the movement of some men and most women to the outskirts of engineering.

Author Last Name: Tonso
Author First Name: Karen
Publisher: Sense Publishers
Publisher Location: Rotterdam
Publication Date: 2007
Source: Sense Publishers
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Career Factors » Organizational Culture Career Factors » Retention

On the Recruitment of Female Students to the Systems Engineering Department at the U.S. Naval Academy

Resource Title: On the Recruitment of Female Students to the Systems Engineering Department at the U.S. Naval Academy

Description/Annotation: The Systems Engineering Department at the U.S. Naval Academy is seeking to increase the number of female students enrolled in the major. This paper discusses the reasons capable female students are not choosing the Systems Engineering major. Enrollment numbers from the Naval Academy and its peer military and civilian institutions are compiled to quantify the under representation of female students in Systems Engineering

and engineering in general. This paper proposes several recruitment strategies for use at the U.S. Naval Academy and peer institutions.

Author Last Name: Piepmeier
Author First Name: Jenelle Armstrong
Additional Author: O'Brien
:
Richard T.
Publication Date: 2001
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences Educational Factors Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

One Reason Women Don't Make It to the C-Suite

Resource Title: One Reason Women Don't Make It to the C-Suite
Description/Annotation: An article written from a different perspective - a neuropsychiatrist studying the differences between female and male brains. The author explains that perhaps timing is the main ingredient for women opting out instead of making a power play for the executive position in their 40s. She examines the amount of stress on the brain of men and women in their 40s and suggests that waiting a few years could make a big difference in advancing women's careers. For industry and the workforce.
Author Last Name: Brizendine
Author First Name: Louann
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2008, Jun
Publication Title: Harvard Business Review
Volume: 86

Issue: 6
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#)

Online Evaluation Resource Library (OERL)

Resource Title: Online Evaluation Resource Library (OERL)

Description/Annotation: Resource portal that collects and makes available evaluation plans, instruments, and reports for NSF projects that can be used as examples by Principal Investigators, project evaluators, and others outside the NSF community as they design proposals and projects.

Web site Link: [Link to Resource](#)

More: Plans, instruments and reports are provided from the following exemplary programs:

- The Course, Curriculum, and Laboratory Improvement (CCLI) seeks to improve the quality of science, technology, engineering, and mathematics (STEM) education for all undergraduate students.
- The Centers for Learning and Teaching (CLT) program focuses on the advanced preparation of science, technology, engineering, and mathematics (STEM) educators, as well as the establishment of meaningful partnerships among education stakeholders, especially Ph.D. granting institutions, school systems, and informal education performers.
- The ITEST program was established by the National Science Foundation in direct response to the concern about shortages of information technology workers in the United States.

Resources: Resources include:

- Instruments, plans, and reports from evaluations that have proven to be sound and representative of current evaluation practices.
- These resources are organized into project categories, including curriculum development, teacher education, faculty

development, laboratory improvement, underrepresented populations and technology.

- Also included are **alignment tables** that contain criteria and a glossary to help you develop your own plans, reports, and instruments.

Site Access Details: This site is publicly accessible.

Partners and Funding: OERL is supported by the Division of Research, Evaluation and Communication, Directorate for Education and Human Resources, National Science Foundation.

Last Update Date: June 6, 2013

Resource Type Categories: [Digital Library/Collection Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Online Tour: Using the WEPAN Knowledge Center to Make Your Job Easier

Resource Title: Online Tour: Using the WEPAN Knowledge Center to Make Your Job Easier

Description/Annotation: This workshop will help experienced and new users explore the resources and professional community in the WEPAN Knowledge Center (WKC). We will do a short tour of the WKC, answer questions, request ideas about resources you would like to see in the WKC, and show you all that the WEPAN Knowledge Center offers.

Author Last Name: Litzler

Author First Name: Elizabeth

Additional Author: Louie

: Bev

Additional Author: Cordes

: Judy

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Presentation

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Educational Factors Career Factors » Professional Development Educational
Factors » Retention

Opportunities to Serve: Important from Middle School to Retirement

Resource Title: Opportunities to Serve: Important from Middle School to Retirement

Description/Annotation: This study presents persistent themes from interviewing twenty engineering women (and a control group of eight men) alumni from three different types of universities. In contrast to their male peers, many women express a preference toward leaving engineering and a majority emphasize a desire to serve people or environment.

Author Last Name: Wilson

Author First Name: Denise

Additional Author: Plett
:
Melani

Additional Author: VanAntwerp
:
Jennifer

Additional Author: Bruxvoort
:
Crystal

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Career Factors » Retention

Opting into Leadership: Finding a Parsimonious Model

Resource Title: Opting into Leadership: Finding a Parsimonious Model

Description/Annotation: This 10-page paper from the 2012 WEPAN National Conference describes a study which utilized role congruity theory (RCT) and social cognitive career theory (SCCT) to examine the underrepresentation of women in the STEM disciplines. According to the conference paper, the study sought to explore the degree to which the combination of theoretical approaches has more explanatory power than either alone. The full paper is available in PDF format.

Author Last Name: Grappendorf
Author First Name: Heidi
Additional Author: Wyer
: Mary
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-10
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Organisational Culture and Successful Women Leadership in Science, Engineering and Technology

Resource Title: Organisational Culture and Successful Women Leadership in Science, Engineering and Technology

Description/Annotation: This 13-page paper from the 2012 WEPAN National Conference presents results from two qualitative empirical projects about conditions for success for women leaders in science, engineering and education. The paper explores gendered working styles, gender stereotypes and acceptance of women leadership. The full paper is available in PDF format.

Author Last Name: Sagebiel
Author First Name: Felizitas
Additional Author: Showunmi

: Victoria
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-13
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#) [Cultural Influences](#) » [Stereotype Threat](#)

Organization-Level Determinants of Women in Management

Resource Title: Organization-Level Determinants of Women in Management
Description/Annotation: This article tests the hypothesis that characteristics of organizations can accurately predict the percentage of women in management positions within the organizations. Research was done on medium and large private sector workplaces. Valuable research for industry leaders.

Author Last Name: Blum
Author First Name: Terry C.
Additional Author: Fields
: D. L.
Additional Author: Goodman
: J. S.
Publisher: Academy of Management
Publisher Location: Ada, OH
Publication Date: 1994, Apr
Page Numbers: 241-268
Publication Title: Academy of Management Journal
Volume: 37

Issue: 2
Source: JSTOR
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Organizational Variations in Women Scientists' Representation in Academia

Resource Title: Organizational Variations in Women Scientists' Representation in Academia

Description/Annotation: Investigates links between organizational conditions and women's representation on college facilities.

Author Last Name: Kulis

Author First Name: Stephen

Publisher: Arizona State University

Publisher Location: Tempe, AZ

Publication Date: 1998

Page Numbers: 43-68

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 4

Issue: 1

Source: Arizona State University

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Outcomes-Based Assessment: Driving Outreach Program Effectiveness

Resource Title: Outcomes-Based Assessment: Driving Outreach Program Effectiveness

Description/Annotation: Using the example of an engineering outreach program for high school girls, this paper describes good outreach practices, including use of proven practices and relevant research, effective assessment, and reports of outcomes; provides resources for tools that outreach professionals and practitioners can use to measure and continuously improve outreach impact; and makes the case that application of good engineering practice to outreach delivery is essential to reach engineering professional society outreach goals. Funded by NSF GSE under award #0937306.

Author Last Name: Bogue

Author First Name: Barbara

Additional Author: Shanahan

: Betty

Additional Author: Marra

: Rose M.

Additional Author: Cady

: Elizabeth T.

Publication Date: 2013

Page Numbers: 27-34

Publication Title: Leadership and Management in Engineering

Volume: 13

Issue: 1

Source: ASCE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Outreach Initiative for Recruiting Women to Engineering: Doing a Good Deed for Girl Scouting

Resource Title: Outreach Initiative for Recruiting Women to Engineering: Doing a Good Deed for Girl Scouting

Description/Annotation: This paper reports on a local initiative by the University of North Carolina at Charlotte to invest in the female youth of today through some proven hands-on learning techniques. It envisions an outreach initiative to teach, train, and aid in the learning of female youth of greater Charlotte in the many exciting facets of construction and engineering. However, the program reaches outside the traditional K-12 education system and targets 10-18 year old girls within the Girls Scouts of the Hornets Nest Council in Charlotte, North Carolina.

Author Last Name: Cottrell

Author First Name: David

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Outreach Teaching, Communication, and Interpersonal Skills Encourage Women and may Facilitate their Recruitment and Retention in the Engineering Curriculum

Resource Title: Outreach Teaching, Communication, and Interpersonal Skills Encourage Women and may Facilitate their Recruitment and Retention in the Engineering Curriculum

Description/Annotation: This paper discusses a study in which researchers incorporated an outreach teaching activity and emphasized communication and interpersonal skills in an undergraduate engineering course. Researchers found that women undergraduates had higher confidence than men in these areas and viewed these activities as most worthwhile for their career.

Author Last Name: Atwood

Author First Name: Sara
Additional Author: Patten
:
Additional Author: Pruitt
:
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Outreach-in-a-Box: Discovering IT

Resource Title: Outreach-in-a-Box: Discovering IT

Description/Annotation: "Outreach-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. This Box provides everything IT professionals need to help introduce middle-school students to the world of computing as well as inspire and inform them about opportunities in IT. This Box includes a powerpoint presentation, robotics activity, and program guide for how to use the materials. Resources are available in PDF format, Word documents, and Powerpoint presentations.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2007, May

Source: NCWIT

Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Pedagogy & Instruction Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Outstanding women in mechanical engineering

Resource Title: Outstanding women in mechanical engineering

Description/Annotation: The article aims to sensitise teachers to their perception of engineers and scientists. It also highlights the life and achievements of one outstanding woman mechanical engineer, namely Ilene J. Busch-Vishniac, and summarises the achievements of other outstanding women in mechanical engineering.

Author Last Name: Hoh

Author First Name: Yin Kiong

Publication Date: 2007

Publication Title: International Journal of Mechanical Engineering Education

Volume: 35

Issue: 3

Source: PB Works

Source Type: Full text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Overcoming Barriers: Engineering Program Environments that Support Women

Resource Title: Overcoming Barriers: Engineering Program Environments that Support Women

Description/Annotation: This study examines factors within the program environment that affect the progress of women pursuing undergraduate engineering degrees. Intensive case studies of six mechanical engineering programs that graduate a relatively high proportion of women yielded insight into the interplay of critical environmental elements within departments. Study results give rise to a greater understanding of strategies and approaches that can help

engineering women battle the commonplace obstacles of lack of critical mass, chilly climate, and paucity of female mentors and role models.

Author Last Name: Tsui
Author First Name: Lisa
Publication Date: 2010
Page Numbers: 137-160
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Overcoming the Gender Gap: New Concepts of Study in Technological Areas

Resource Title: Overcoming the Gender Gap: New Concepts of Study in Technological Areas

Description/Annotation: This paper presents several models of co-educative, gender-sensitive model-courses developed through the project GENESIS, located at Technische Universität Berlin. The courses, in three major areas of natural sciences, computer sciences and engineering, and their underlying concepts are discussed.

Author Last Name: Dahlmann
Author First Name: Nina
Additional Author: Jeschke
:
Additional Author: Thomsen
:
Additional Author: Wilke

: Marc
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Packetville

Resource Title: Packetville

Description/Annotation: Instructional, game-based website for children aged 8-14, parents, educators and club advisors on how the internet works.

Web site Link: [Link to Resource](#)

More: This project began when an executive at Cisco asked programmers to create an engaging program for "Bring Your Daughter to Work Day." The result was a dynamic learning adventure in video game format that intrigued all the girls in attendance. The game, Peter Packet, taught students about the Internet as they made their way through its challenges.

Resources: Interactive and informational resources for:

- Packet Riders for ages 8-11 - games and activities
- Hacker Busters for ages 12-14 - games and activities
- Parents
- Educators
- Club Advisors

Site Access Details: This site is publicly accessible.

Partners and Funding: Cisco Networking Academy

Last Update Date: May 8, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Pair programming in CS1: Overcoming objections to its adoption

Resource Title:	Pair programming in CS1: Overcoming objections to its adoption
Description/Annotation:	In academic year 2005-06, the Bren School considered incorporating pair programming into CS1, primarily because of reports it increased students' satisfaction with the course and improved their performance in it. Though not denying its benefits, objectors asserted that certain obstacles doomed pair programming to failure and so was not worth undertaking. This article refuted some of these assertions sufficiently to proceed with pair programming in CS1; evidence from that offering allowed us to refute the remainder (as does evidence from subsequent ones). Authors contend their findings apply to programming classes generally and will help convince objectors that pair programming is worth attempting. Funded by NSF GSE under award #0533580.
Author Last Name:	Jacobson
Author First Name:	Norman
Additional Author:	Schaefer
:	Suzanne K.
Publication Date:	2008
Page Numbers:	93-96
Publication Title:	ACM SIGCSE Bulletin
Volume:	40
Issue:	2
Source:	ACM
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Pair Programming-in-a-Box: The Power of Collaborative Learning

Resource Title: Pair Programming-in-a-Box: The Power of Collaborative Learning

Description/Annotation: "Pair Programming-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. Pair programming is a collaborative learning method in which students program in pairs instead of individually. Pair programming has shown to improve computer science (CS) enrollment, retention, and students' performance, as well as increase students' confidence. This Box provides all the components faculty need to successfully use pair programming methods in their courses. This Box includes handouts, questionnaire, and a survey available as Word documents.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2009, Apr

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction Educational Factors](#) » [Retention](#)

Parental support for female IT career interest and choice

Resource Title: Parental support for female IT career interest and choice

Description/Annotation: This article reviews research on parental support for female career choice, including the research findings from the Women and Information Technology project funded by the National Science Foundation. Funded by NSF GSE under award #0522767.

Author Last Name: Meszaros

Author First Name: Peggy S.

Additional Author: Laughlin

:

Additional Author: Creamer

: Elizabeth G.
Additional Author: Burger
: Carol J.
Additional Author: Soyoung
: Lee
Publication Date: 2006
Page Numbers: 963-969
Publication Title: Encyclopedia of Gender and Information Technology
Source: IGI Global
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Parenting and Professing Balancing Family Work with an Academic Career

Resource Title: Parenting and Professing Balancing Family Work with an Academic Career
Description/Annotation: Twenty four essays that focus on academic women who describe the challenges and possibilities of combining a personal and professional life. Useful for faculty, graduate, and returning students.
Author Last Name: Bassett
Author First Name: Rachel Hile
Publisher: Vanderbilt University Press
Publication Date: 2005
Page Numbers: 253
Database Name: Vanderbilt University Press
Link Type: Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Family Issues

Parent's Social Support for Children's Outdoor Physical Activity: Do Weekdays and Weekends Matter?

Resource Title: Parent's Social Support for Children's Outdoor Physical Activity: Do Weekdays and Weekends Matter?

Description/Annotation: 7-page study by Public Health researchers. Gendered effects of recreation support on child outdoor physical activity by either parent is dependent on when the parent is available and whether type of support is considered gendered. Useful for parents and teachers K-12.

Author Last Name: Beets

Author First Name: Michael W.

Additional Author: Vogel

: Randy

Additional Author: Chapman

: Stanley

Additional Author: Pitetti

: Kenneth H.

Additional Author: Cardinal

: Bradley J.

Publisher: Springer

Publisher Location: New York, NY

Publication Date: 2007

Page Numbers: 125-131

Publication Title: Sex Roles

Volume: 56

Issue: 1-2

Database Name: SpringerLink

Link Type: Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Participation, Performance, and Advancement of Women in Academic Science and Engineering: What is at issue and why

Resource Title:	Participation, Performance, and Advancement of Women in Academic Science and Engineering: What is at issue and why
Description/Annotation:	Using multi-staged methods developed in this research for coding/analysis of interview data, this article portrays women's reported experiences of participation, performance, and advancement in academic science and engineering in a major technological institution. The methods and findings have implications for understanding the complexity underlying women's participation and performance, and for practices and policies to support advancement of women faculty, particularly those in research universities.
Author Last Name:	Fox
Author First Name:	Mary Frank
Additional Author:	Colatrella
:	Carol
Publication Date:	2006
Page Numbers:	377-386
Publication Title:	Journal of Technology Transfer
Volume:	31
Issue:	3
Source:	RePEc
Source Type:	Abstract/PDF Available

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Participation, Performance, and Advancement of Women in Academic Science and Engineering: What Is at Issue and Why

Resource Title:	Participation, Performance, and Advancement of Women in Academic Science and Engineering: What Is at Issue and Why
Description/Annotation:	This report details women's reported experiences in an academic science and engineering environment at a major technological institution. Interviews are used to cover new faculty through tenure. Institutional recommendations (such as clear, written guidelines for promotion and tenure) to promote fairness are presented.
Author Last Name:	Fox
Author First Name:	Mary
Additional Author:	Colatrella
:	Carol
Publication Date:	2006, May
Page Numbers:	377-386
Publication Title:	Journal of Technology Transfer
Volume:	31
Issue:	3
Source:	SpringerLink
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Partnering with Teachers to Educate Girls in the New Computer Age

Resource Title:	Partnering with Teachers to Educate Girls in the New Computer Age
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Description/Annotation: This paper discusses a study conducted in 2 consecutive years at the same public middle school. The project was designed to challenge the view that technology is a male domain. In the main study, teachers partnered with researchers to implement an innovative educational intervention focused on disrupting gender stereotype—producing dynamics among students' peer groups. Girls in the treatment group reported greater interest in future computer and technology involvement than girls in the control group. In addition, girls in the intervention reported less endorsement of boys' computer expertise than girls in the control group. Although the intervention was designed for girls, overall, boys' reactions were quite positive.

Author Last Name: Gilbert
Author First Name: Lucia Albino

Additional Author: Bravo
:

Additional Author: Kearney
:

Publication Date: 2004

Publication Title: Journal of Women and Minorities in Science and Engineering

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study](#)
[Choices](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual](#)
[Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Partnering with University Faculty and Students to Design Engineering Outreach Sessions for Middle School Students

Resource Title: Partnering with University Faculty and Students to Design Engineering Outreach Sessions for Middle School Students

Description/Annotation: Innovation to Reality (I2R) is a free, after-school engineering program launched by the Purdue University Women in

Engineering Program in an effort to provide local 6th-8th grade students an opportunity to learn about engineering through socially relevant themes (e.g., addressing global water scarcity). For practitioners, the I2R program demonstrates methods to build educational engineering programs utilizing resources on a university campus.

Author Last Name: Fitzpatrick
Author First Name: Velvet R.
Additional Author: Groh
:
Additional Author: Jennifer L.
:
Additional Author: Holloway
:
Additional Author: Beth M.
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference).
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#)[Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

Paving an Alternative Route: Gender Differences in Managerial Networks

Resource Title: Paving an Alternative Route: Gender Differences in Managerial Networks

Description/Annotation: A study on gender and networks and what kind of networks provide support to women for their careers. A primary question answered by the author is how women's and men's networks differ. The types of networks women form that provide job-related information are explored. Useful for women and men in the workforce.

Author Last Name: Ibarra
Author First Name: Herminia
Publisher: American Sociological Association

Publisher Location: Washington, D.C.
Publication Date: 1997, Mar
Page Numbers: 91-102
Publication Title: Social Psychology Quarterly
Volume: 60
Issue: 1
Source: JSTOR
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

PBS Teachers: STEM Education Resource Center

Resource Title: PBS Teachers: STEM Education Resource Center

Description/Annotation: Searchable database of 4,000 science, technology, engineering and math resources for grades pre K-5 and grades 6-12. Printable STEM Resources Round-up also available.

Web site Link: [Link to Resource](#)

More: The STEM Education Resource Center is a part of the larger [PBS Teachers website](#) with resources including a professional community for teachers.

Resources: Resources include:

- Science, technology, engineering and math topical resources organized by grade level
- PBS Teacherline Online Professional Development resources
- Free monthly webinars featuring leading education technology experts and PBS producers sharing resources and strategies to help teachers use digital media to engage students in rich learning experiences.
- PBS Videos

Site Access Details: This site is publicly accessible but also has a "PBS teachers" area available via a login with special resources and community features.

Partners and Funding: U.S. Dept. of Education, Corporation for Public Broadcasting and selected sponsored Google links.

Last Update Date: June 10, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Informal Academic Preparation Educational Factors](#) » [Pedagogy & Instruction](#)

Pedagogical Agents as Social Models for Engineering: The Influence of Agent Appearance on Female Choice

Resource Title: Pedagogical Agents as Social Models for Engineering: The Influence of Agent Appearance on Female Choice

Description/Annotation: 8-page study of 79 undergraduate women who would choose to learn from a teacher (pedagogical agent) who looked most like themselves. Conversely same women picked the "engineer" who was most unlike themselves as a teacher. Exposure to any agent resulted in positive attitudes towards mathematics and engineering. Useful for WEP directors and educators K-20.

Author Last Name: Baylor

Author First Name: Amy L.

Additional Author: Plant

: E. Ashby

Publisher: IOS Press

Publication Date: 2005

Page Numbers: 65-72

Publication Title: Proceedings of the 2005 conference on Artificial Intelligence in Education: Supporting Learning through Intelligent and Socially Informed Technology

Source: ACM

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors Educational Factors Educational Factors](#) » [Faculty Student Interaction Career Factors](#) » [Mentoring Educational Factors](#) » [Pedagogy & Instruction](#)

Pedagogical Methods for Improving Women's Participation and Success in Engineering Education: A Review of Recent Literature

Resource Title:	Pedagogical Methods for Improving Women's Participation and Success in Engineering Education: A Review of Recent Literature
Description/Annotation:	This literature review looks at 281 articles published between 2005 and 2008 that appeared in one or more of the following: Society of Women Engineers (SWE) annual Literature Review, Journal of Engineering Education, Journal of Women and Minorities in Science and Engineering and Engineering Education. It focuses on articles that deal with instructional practices and learning interventions aimed at improving retention and success in undergraduate engineering education of women.
Author Last Name:	Osborne
Author First Name:	Lynette
Additional Author:	Miller
:	Kevin
Additional Author:	Farabee-Siers
:	Robin
Publisher:	Institute for Women's Policy Research
Publisher Location:	Washington, D.C.
Publication Date:	2008
Page Numbers:	20
Source:	IWPR
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Pedagogical Reform and College Women's Persistence in Mathematics

Resource Title: Pedagogical Reform and College Women's Persistence in Mathematics

Description/Annotation: Using questionnaires administered to 355 traditional-age female college students, the authors examined the relationship between alternative teaching strategies in high school mathematics classes and two categories of outcome variables: mathematics-related attitudes and mathematics persistence in college. Multivariate analysis showed that experience with this so-called female-friendly pedagogy is positively related to students' math-related attitudes and that these attitudes predict math persistence in college. However, the authors' data also indicate that alternative teaching strategies have no discernible direct effect on students' choices of mathematics courses or math related

Author Last Name: Strand

Author First Name: Kerry J.

Additional Author: Mayfield

: M. Elizabeth

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Source: Begell House

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Pedagogies of Engagement: Classroom-Based Practices

Resource Title: Pedagogies of Engagement: Classroom-Based Practices

Description/Annotation: This 15-page paper describes pedagogies of engagement (i.e. cooperative and problem-based learning) and their use in engineering education. Includes a brief history of the topic, theoretical and research support for its application, and a discussion of classroom implementation practices in engineering. Also includes a discussion of future directions for research and implementation.

Author Last Name: Smith
Author First Name: Karl A.
Additional Author: Sheppard
:
Additional Author: Johnson
:
Additional Author: Johnson
:
Additional Author: Roger T.
Publication Date: 2005
Page Numbers: 87-101
Publication Title: Journal of Engineering Education
Source: University of Minnesota
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Pedatronics: robotic toys as a source to evoke young girls' technological interest

Resource Title: Pedatronics: robotic toys as a source to evoke young girls' technological interest

Description/Annotation: This paper presents some results within Pedatronics, a fusion between pedagogics and mechatronics. The authors' research interest is to study what emerges in the play with robotic toys. Field-experimental studies of 6-7 year old children's purposeless play with robotic toys created a self-developmental sphere, as well as evoked young girls' technological interest. Both girls and boys prolonged and intensified their interest according to the amount of gadgets involved. The results disclose a learning potential, indicating the importance to develop strategies at an early stage in order to encourage girls to choose technological and engineering educations. The study recommend engineers and toy designers, in cooperation with children, to move towards 'Integrated Play Systems'.

Author Last Name: Aderklou
Author First Name: C.
Additional Author: Fritzdorf
:
Additional Author: Tebelius
:
Additional Author: Bengtsson
:
Publication Date: 2002
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences » Media &
Entertainment Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Peer Group Contexts of Girls' and Boys' Academic Experiences

Resource Title: Peer Group Contexts of Girls' and Boys' Academic Experiences
Description/Annotation: Girls have caught up with boys in math course taking in high school but reasons for taking math still differ by gender. This study, therefore, investigated gender differences in the linkage between peer relations and math course taking by applying multilevel modeling to a nationally representative data set that includes peer networks and school transcripts. For all adolescents, math course taking was associated with the achievement of their close friends and, to a lesser extent, their classmates. These associations tended to be stronger toward the end of high school and weaker among adolescents with a prior record of failure in school. Each of these patterns was somewhat more consistent among girls. Funded by NSF GSE under award #0523046.

Author Last Name: Crosnoe
Author First Name: R.

Additional Author: Riegle-Crumb
:
Additional Author: Field
:
Additional Author: Frank
:
Additional Author: Muller
:
Publication Date: 2008
Page Numbers: 139-155
Publication Title: Child Development
Volume: 79
Issue: 1
Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Peer Mentoring: A New and Intentional Look at an Old Favorite

Resource Title: Peer Mentoring: A New and Intentional Look at an Old Favorite
Description/Annotation: This paper from the 2012 WEPAN National Conference summarizes recent efforts by the Center for Women in Technology (CWIT) at the University of Maryland Baltimore County (UMBC) to implement a peer mentoring program that targets all new undergraduate women pursuing computing and engineering majors in The College of Engineering and Information Technology (COEIT). The presentation describes the ten-year evolution of the peer mentoring program, including lessons learned and recent outcomes data. The full presentation is available in PDF format.

Author Last Name: Martin
Author First Name: Susan C.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Mentoring](#) [Educational Factors](#) »
[Retention](#)

Peer-Mentoring for Untenured Women Faculty: The Leadership Skills and Community-Building Workshop

Resource Title: Peer-Mentoring for Untenured Women Faculty: The Leadership Skills and Community-Building Workshop

Description/Annotation: This paper discusses an Outward Bound-based Leadership Skills and Community-Building Workshop held in August 2001. Participants included 14 untenured women faculty in engineering, a psychologist, and one invited senior woman faculty member in engineering. Based on post-workshop participant reflections, significant positive impact on participants' informational, psychosocial and instrumental well-being was achieved. Preliminary evidence suggests that these new skills and perspectives, as well as post-workshop peer- mentoring, will contribute to longer-term success in academe for the participating women faculty members in engineering.

Author Last Name: Chesler
Author First Name: Naomi C.
Additional Author: Mikic
:
Borjana M.
Additional Author: Single
:
Peg Boyle
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development](#)

Perceived gender differences in STEM learning in the middle school

Resource Title: Perceived gender differences in STEM learning in the middle school

Description/Annotation: Using data from a survey and written responses, this report reveals perceptions of engineering experiences following the introduction of engineering education in middle school classes across three schools in Australia and New Zealand. The written responses revealed gender differences across a number of themes in the students' responses, including resources, group work, the nature and type of learning experiences, content knowledge, and teachers' instructional style. The report concludes that exposing students to STEM education facilitates an awareness of their learning and may assist girls to consider studying STEM subjects or STEM careers.

Author Last Name: English

Author First Name: Lyn D.

Additional Author: Hudson

: Peter B.

Additional Author: Dawes

: Les A.

Publication Date: 2011

Page Numbers: 389-398

Publication Title: International Journal of Engineering Education

Volume: 27

Issue: 2

Source: Queensland University of Technology

Source Type: Abstract

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Perceived Social Support: Ethnic and Gender Differences in the Computing Disciplines

Resource Title: Perceived Social Support: Ethnic and Gender Differences in the Computing Disciplines

Description/Annotation: This paper examines the role of gender and ethnicity on students' perceived social support from faculty and students, as well as their overall satisfaction with that support. Data from the first year of a three-year study conducted at 42 U.S. institutions were analyzed to determine if there are gender and ethnic differences in perceived social support in the computing disciplines compared to the non-computing disciplines, as well as in computer science. Results and implications of findings in relation to the recruitment and retention of students in the computing disciplines are discussed. Funded by NSF GSE under award #0332780.

Author Last Name: Giguette

Author First Name: M.S.

Additional Author: Lopez

: A.M.

Additional Author: Schulte

: L.J.

Publication Date: 2006

Page Numbers: 9-12

Publication Title: Proceedings of the Thirty-sixth ASEE/IEEE Frontiers in Education Conference

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Cultural Influences Cultural Influences » Family Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Publications by Funder

Perceptions of Fairness: Gender and Attitudes about Opportunity among Scientists in Germany and the United States

Resource Title: Perceptions of Fairness: Gender and Attitudes about Opportunity among Scientists in Germany and the United States

Description/Annotation: This paper discusses a study in which researchers investigate women scientists' attitudes about getting ahead using data from the International Social Survey Program (ISSP) for former East Germany, West Germany, and the United States in 1987, 1992, and 1999. The three samples provide an interesting contrast given the different contexts within which science structures have developed in these countries. Our findings suggest that both gender and country of residence (and their interactions) have powerful influences on scientists' attitudes.

Author Last Name: Hanson

Author First Name: Sandra L.

Additional Author: Kennelly

:

Ivy

Additional Author: Fuchs

:

Stefan

Publication Date: 2007

Page Numbers: 231-258

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 3

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Organizational](#)
[Culture](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Perceptions of Information Technology Careers Among Women in Career Development Transition

Resource Title: Perceptions of Information Technology Careers Among Women in Career Development Transition

Description/Annotation: This study examines attitudes toward computer/IT careers among women, mostly employed, who are considering career options. Most of the 42 women in this questionnaire study were attending career transition workshops conducted by non-profit organizations. Specifically the study focuses on computer usage and personal knowledge of women in IT in relation to attitudes toward computer/IT jobs, aspects of the IT work environment, and preparation for computer/IT careers.

Author Last Name: Ballard

Author First Name: John

Additional Author: Scales

: Karen

Additional Author: Edwards

: Mary Ann

Publication Date: 2006

Page Numbers: 1-9

Publication Title: Information Technology, Learning, and Performance Journal

Volume: 24

Issue: 2

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Perceptions of Women's Treatment in Engineering Education: From the Voices of Male and Female Students

Resource Title: Perceptions of Women's Treatment in Engineering Education: From the Voices of Male and Female Students

Description/Annotation: This study uses a web questionnaire and interviews with sophomore engineering students to address the perceptions of gendered treatment of women as compared to men in higher education engineering programs. The themes that emerged indicate that male and female students view the treatment of females differently both between and within gender groups.

Author Last Name: Osborne

Author First Name: Lynette

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Performance in College Chemistry: A Statistical Comparison Using Gender and Jungian Personality Type

Resource Title: Performance in College Chemistry: A Statistical Comparison Using Gender and Jungian Personality Type

Description/Annotation: This study sorted college introductory chemistry students by gender and Jungian personality type. It recognized differences from the general population distribution and statistically compared the students' grades with their Jungian personality types. Data from 577 female students indicated that ESFP (extroverted, sensory, feeling, perceiving) and ENFP (extroverted, intuitive, feeling, perceiving) profiles performed poorly at statistically significant levels when compared with the distribution of females enrolled in introductory chemistry.

Author Last Name: Van der Eb Greene

Author First Name: Susan

Additional Author: Wheeler
: Henry R.
Additional Author: Riley
: Wayne D.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Persistence of Interest in Science, Technology, Engineering, and Mathematics: A Minority Retention Study

Resource Title: Persistence of Interest in Science, Technology, Engineering, and Mathematics: A Minority Retention Study

Description/Annotation: Increased enrollment has not produced more degrees for minorities in the science, technology, engineering, or mathematics disciplines. Although there are a variety of reasons for students not persisting, a number of students undoubtedly change majors or drop out due to loss of interest. This study focused solely on interest and interaction variables for predicting persistence in a sample of students from 15 institutions in Ohio.

Author Last Name: White
Author First Name: Jeffry L.
Additional Author: Altschuld
: James W.
Additional Author: Lee

: Yi-Fang
Publication Date: 2006
Page Numbers: 47-64
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Source: Research Gate
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Persistence of Women in Engineering Careers: A Qualitative Study of Current and Former Female Engineers

Resource Title: Persistence of Women in Engineering Careers: A Qualitative Study of Current and Former Female Engineers

Description/Annotation: This study investigated women's variability in persistence in engineering by interviewing 11 former and 14 current engineers. Five domains captured these women's experiences in engineering, including: identifying and coping with workplace inequities; support and/or barriers in work and family; self-evaluation and identity in a nontraditional work environment; reasons for and reactions to leaving the field; and compromising future advancement. Women who had left engineering cited as reasons the need to care for their children, movement into roles with more opportunities, and a dislike of engineering tasks or environment.

Author Last Name: Fouad
Author First Name: Natya
Additional Author: Fitzpatrick
:
Additional Author: Mary
:
Additional Author: Liu
:
Additional Author: Jane P.
Publisher: Begell House, Inc

Publication Date: 2011
Page Numbers: 69-96
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 1
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Perspectives of Best Practices for Learning Gender-Inclusive Science: Influences of Extracurricular Science for Gifted Girls and Electrical Engineering for Women

Resource Title: Perspectives of Best Practices for Learning Gender-Inclusive Science: Influences of Extracurricular Science for Gifted Girls and Electrical Engineering for Women

Description/Annotation: This study attempted to explore the perceptions of gifted girls regarding how the family, home, and school environments influenced their choices to take extracurricular science classes. In addition, findings from a focused case study of a graduate electrical engineer are interwoven with the girls' perspectives of science. The varying ages and experiences with science of the participants provide interesting views.

Author Last Name: Wood
Author First Name: Shaunda L.
Publication Date: 2002
Page Numbers: 25-40
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 1

Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and
Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors »
STEM Career Interest/Awareness

Perspectives on "Career and Family" Alternatives for Female Engineering Faculty

Resource Title: Perspectives on "Career and Family" Alternatives for Female Engineering Faculty

Description/Annotation: This paper discusses the arrangement that was made at the University of Minnesota for a female engineering faculty member who was deciding between family and career. The young female faculty, who has started a family with two children and a third on the way, remained teaching and conducting research half-time and was performing admirably. She won “the excellence in teaching award” in the college of nearly 140 faculty, and was awarded tenure and promotion to Associate Professor. This paper offers perspectives by the former department chair (male) and the faculty member. Authors present their perspectives on the benefits, challenges, and the limitations of the arrangement and suggest ways to improve similar future arrangements.

Author Last Name: Moaveni

Author First Name: Saeed

Additional Author: Nykanen
: Deborah

Additional Author: Chou
: Karen

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Ph.D. Completion Project

Resource Title: Ph.D. Completion Project

Description/Annotation: A seven-year, grant-funded project guided by the Council of Graduate Schools to gather data and provide intervention programs for Ph.D. completion. Funding was given to 29 major U.S. and Canadian research universities to develop intervention programs and then evaluate the programs related to Ph.D. completion and attrition patterns.

Web site Link: [Link to Resource](#)

Resources:

- News
- Featured Profiles
- Project Calendar
- Resources
 - Presentations
 - Web links
 - Bibliography
- Quantitative Data
 - Program data
 - Demographic data
 - Publications
- Promising Practices
 - Student selection and admissions
 - Mentoring and advising
 - Financial support
 - Program environment
 - Research experience
 - Curricular and administrative processes and procedures

Site Access Details: Free access to all areas of the website by the general public.

Partners and Funding: Partners are The Council of Graduate Studies, Pfizer and Ford Foundation.

Contact E-mail: phdcompletion@cgs.nche.edu

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Physical Science Lessons for K-12

- Resource Title:** Physical Science Lessons for K-12
- Description/Annotation:** This website provides hundreds of physical science lessons for students in elementary to high school.
- Web site Link:** [Link to Resource](#)
- More:** Michigan Reach Out! is a 501(c)(3) nonprofit organization that links college, business, and community mentors with youth to provide educational and career exploration opportunities both inside and outside the classroom.
- Resources:** Lessons organized by subject and grade level.
Accepts lesson and experiment submissions from teachers.
- Site Access Details:** This site is publicly accessible.
- Partners and Funding:** Michigan Reach Out! is supported by numerous foundation, corporate, university and government grants and gifts and individual gifts.
- Last Update Date:** June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Physics Doctorates Initial Employment

- Resource Title:** Physics Doctorates Initial Employment
- Description/Annotation:** This 8-page report from the American Institute of Physics (AIP) details the initial employment outcomes of physics PhDs from the classes of 2007 and 2008. The report summarizes the findings of the follow-up survey to the Fall 2008 survey of all degree-granting physics and astronomy departments in the US and inquires about post-degree information. The report includes data and figures on initial employment by type of position, sector, field, and starting salaries. According to the report, the private sector employed the majority of physics PhDs who accepted potentially permanent positions. Almost three-quarters of the new PhDs who accepted a postdoctoral appointment were employed in the academic sector and almost a quarter accepted positions with the government.

Author Last Name: Mulvey
Author First Name: Patrick
Additional Author: Shinde
:
Publisher: AIP Statistical Research Center
Publisher Location: College Park, MD
Publication Date: 2011, Jun
Page Numbers: 1-5
Publication Title: Focus On
Volume: 2011
Issue: June
Source: AIP
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Physics for All? A Million and Counting!

Resource Title: Physics for All? A Million and Counting!
Description/Annotation: Article discussing ways to teach and learn high school physics and why it is so important for students to study physics in high school.
Author Last Name: Hehn
Author First Name: Jack
Additional Author: Neuschatz
:
Publisher: American Institute of Physics
Publisher Location: Melville, NY
Publication Date: 2002
Page Numbers: 37-50

Publication Title: Physics Today
Volume: 59
Issue: 2
Source: AIP
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) »
[Retention](#)

Physics Trends Flyers (2012)

Resource Title: Physics Trends Flyers (2012)

Description/Annotation: These flyers from the American Institute of Physics (AIP) Statistical Research Center offer snapshots of the latest trends in physics. Intended to communicate basic information to students, the individual flyers are available in PDF format. The flyers include data and statistics on physics education and employment from spring 2000 through 2012.

Web site Link: [Link to Resource](#)

More: The AIP Statistical Research Center was formerly called the Education and Employment Statistics Division. The Center collects, analyzes and disseminates data on education and employment in physics and related fields.

Resources: The flyers include data and statistics on physics trends from Spring 2000 through 2012, including:

- Salaries
 - Starting Salaries (Physics Bachelor's, Master's, PhD)
 - [Physics Bachelor's, Spring 2012](#)
 - Faculty
- Women
 - Among Physics Faculty Members
 - [1998 through 2010](#)
 - In Selected Fields
- Enrollment
 - Physics in US High Schools by Course
 - First-Year Graduate Student
 - [Spring 2011](#)

- High School Physics Growth
- Degrees
 - Bachelor's
 - Largest Physics Bachelors Class in History, Fall 2011
 - Master's
 - PhD
- Employment
 - PhD Initial Employment
 - PhD Unemployment

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Physics Trends Flyers are produced by the AIP Statistical Research Center.

Last Update Date: July 26, 2013

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

Pilot Study of a “Women in Engineering Seminar” That Is Responsive to Regional Attitudes

Resource Title: Pilot Study of a “Women in Engineering Seminar” That Is Responsive to Regional Attitudes

Description/Annotation: The paper describes a pilot study of a one-hour seminar designed for incoming female freshmen students. The seminar includes many features of existing women in engineering seminars including external guest speakers, introductions to the female faculty members, and presentations by Career Services.

Author Last Name: Hailey

Author First Name: Christine

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition Educational Factors](#) [Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation](#)

Pipeline or personal preference: women in engineering

Resource Title: Pipeline or personal preference: women in engineering

Description/Annotation: This paper re-examines the pipeline for bringing women into engineering and, based on survey data, examines the attitudes, motivations, and interests of 969 male and female engineering students. Gender similarities and differences are identified, and their implications for recruitment and retention of women are considered.

Author Last Name: Schreuders

Author First Name: P.D.

Additional Author: Mannon

: S.E.

Additional Author: Rutherford

: B.

Publication Date: 2009

Page Numbers: 97-112

Publication Title: European Journal of Engineering Education

Volume: 34

Issue: 1

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Pipeline persistence: Examining the association of educational experiences with earned degrees in STEM among U.S. students

Resource Title: Pipeline persistence: Examining the association of educational experiences with earned degrees in STEM among U.S. students

Description/Annotation: This article summarizes a two-part analysis assessing the school-based factors related to students choosing to complete a major in science, technology, engineering, and mathematics (STEM). The results indicate that the majority of students who concentrate in STEM make that choice during high school, and that choice is related to a growing interest in mathematics and science rather than enrollment or achievement. These results indicate that the current policy focus on advanced-level course taking and achievement as measures to increase the flow of students into STEM may be misguided.

Author Last Name: Maltese

Author First Name: Adam V.

Additional Author: Tai

: Robert H.

Publisher: Wiley

Publication Date: 2011, Sep

Page Numbers: 877-907

Publication Title: Science Education

Volume: 95

Issue: 5

Source: Science Education

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Pipeline-in-a-Box: Promoting Advancement of CS/IT Students from Two-Year to Four-Year Institutions

Resource Title: Pipeline-in-a-Box: Promoting Advancement of CS/IT Students from Two-Year to Four-Year Institutions

Description/Annotation: "Pipeline-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. This Box is a complete set of resources designed for strengthening the relationship between faculty, administrators, and advisors at community colleges and four-year institutions in order to increase the number of students, including underrepresented groups, graduating with computer science (CS) or information technology (IT) baccalaureate degrees. This Box includes strategies, data, templates, posters, presentations, and other resources for recruiting, transferring, and graduating students obtaining degrees in CS and IT. Resources are available in PDF format and as Powerpoint presentations.

Author Last Name: NCWIT
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2009, Jan
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Pipelines and Pathways: Women of Color in Undergraduate STEM Majors and the College Experiences That Contribute to Persistence

Resource Title: Pipelines and Pathways: Women of Color in Undergraduate STEM Majors and the College Experiences That Contribute to Persistence

Description/Annotation: This 32-page journal article from the Harvard Educational Review reviews a quantitative study examining the effect of precollege characteristics, college experiences, and institutional setting on the persistence of undergraduate women of color in STEM majors. The study also investigates how this pathway might differ for women of color in comparison to their White peers. According to the article, results revealed the paramount role of women's college experiences: women of color who persisted in STEM frequently engaged with peers to discuss course content, joined

STEM-related student organizations, participated in undergraduate research programs, had altruistic ambitions, attended private colleges, and attended institutions with a robust community of STEM students. The full article is available for purchase.

Author Last Name: Espinosa
Author First Name: Lorelle L.
Publisher: Harvard Education Publishing Group
Publisher Location: Cambridge, MA
Publication Date: 2011, Jun
Page Numbers: 209-241
Publication Title: Harvard Educational Review
Volume: 81
Issue: 2
Source: Harvard Education Publishing Group
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Planning Approach for the Society of Women Engineers Mentoring Girl Scouts

Resource Title: Planning Approach for the Society of Women Engineers Mentoring Girl Scouts

Description/Annotation: This paper discusses a mentoring system organized by the Society of Women Engineers (SWE) section at USU with the local Girl Scout council. The primary idea is a top-down mentoring approach where activities are designed and run by women and girls that are a step ahead of the participants. The USU student SWE section runs a mentoring program to help Cadette and Senior Girl Scouts (middle and high school girls) earn an interest patch related to science and engineering.

Author Last Name: Haupt
Author First Name: Sue Ellen

Additional Author: Gregory
:
Jessica D.
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Points of View: Effective Partnerships Between K-12 and Higher Education

Resource Title: Points of View: Effective Partnerships Between K-12 and Higher Education

Description/Annotation: This article's authors argue that crafting effective science education partnerships requires moving beyond K-12 science education reform and toward examination of the connections and disconnections between K-12 and university science pedagogy. In particular, authors believe that three major shifts must occur: 1) the adoption of a mutual learning model of partnership, 2) the integration of partnership into the training of scientists, and 3) the development of sustained infrastructures for partnership. Funded by NSF GSE under award #0337949.

Author Last Name: Dolan
Author First Name: E.
Additional Author: Tanner
:
K.D.
Publication Date: 2005
Page Numbers: 28-37
Publication Title: CBE- Life Sciences Education
Volume: 4
Issue: 1

Source: NCBI
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Policy Change Is Not Enough: Measuring the Impact of Work/Life Policies at a Research University

Resource Title: Policy Change Is Not Enough: Measuring the Impact of Work/Life Policies at a Research University

Description/Annotation: The goals of research university policies are to create a welcoming and supportive environment for all faculty members so they can succeed and aren't required to make unacceptable choices between family and career. This paper discusses the needs of both female and male faculty and then reviews a program at Virginia Tech, AdvanceVT, that facilitates the work/life balance of research faculty.

Author Last Name: Layne

Author First Name: Peggy

Additional Author: Johnson

: Ane

Additional Author: Hyer

: Patricia

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 7

Source: WEPAN

Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Career Factors » Family IssuesCareer Factors » Organizational Culture Career
Factors » Professional Development

Positive Illusions, Motivations, Management Style, Stereotypes, Stress, and Psychological Traits: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Resource Title: Positive Illusions, Motivations, Management Style, Stereotypes, Stress, and Psychological Traits: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Description/Annotation: This 17-page briefing report from the National Center for Women and Information Technology (NCWIT) is part of the Entrepreneurial Report Series. This report highlights the evidence regarding psychological analysis of entrepreneurship, with special interest in research that considers women and the information technology field. According to the report, risk-taking propensity is the psychological trait most likely to distinguish between men and women who become entrepreneurs and those who do not. The full report is available in PDF format.

Author Last Name: Aspray

Author First Name: William

Additional Author: Cohoon

: J. McGrath

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2007, Feb

Page Numbers: 1-17

Publication Title: National Center for Women and Information Technology Entrepreneurial Report Series

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Potential Impacts of Creating Biomedical Engineering Programs on Gender Distribution within Leading Engineering Colleges

Resource Title:	Potential Impacts of Creating Biomedical Engineering Programs on Gender Distribution within Leading Engineering Colleges
Description/Annotation:	This 14-page article from the Journal of Diversity in Higher Education discusses the number of biomedical engineering (BME) undergraduate degree programs among the Association of American Universities institutions (AAUs) that reported engineering bachelor's (BSE) degree recipients to the American Society for Engineering Education (ASEE). According to the article, AAUs that had BME BSE degree recipients in 2000 or first reported BME graduates between 2000 and 2009 experienced a decrease in the percentage and number of women receiving engineering undergraduate degrees across the other engineering disciplines. The targeting of science, technology, engineering, and mathematics disciplines toward specific underrepresented groups is discussed with respect to ongoing limited degree attainment of women in these fields.
Author Last Name:	Bowman
Author First Name:	Keith J.
Publisher:	APA
Publisher Location:	Washington, DC
Publication Date:	2011, Mar
Page Numbers:	51-64
Publication Title:	Journal of Diversity in Higher Education
Volume:	4
Issue:	1
Source:	APA
Source Type:	Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Power Relations in IT Education and Work: The Intersectionality of Gender, Race and Class

Resource Title:	Power Relations in IT Education and Work: The Intersectionality of Gender, Race and Class
Description/Annotation:	This paper challenges the assumption of heterogeneity by investigating how the intersection of gender, race, and class identities shape the experiences of Black female IT workers and learners in the USA. The results of this meta-analysis offer new ways of theorizing that provide nuanced understanding of social exclusion and varied emancipatory practices in reaction to shared group exposure to oppression. Funded by NSF GSE under award #0733747.
Author Last Name:	Kvasny
Author First Name:	Lynette
Additional Author:	Trauth
:	Eileen M.
Additional Author:	Morgan
:	Allison J.
Publication Date:	2009
Page Numbers:	96-118
Publication Title:	Journal of Information, Communication and Ethics in Society
Volume:	7
Issue:	2/3
Source:	Emerald
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Powering Up the Pipeline

Resource Title: Powering Up the Pipeline

Description/Annotation: A short article describing efforts in K-12 to increase participation in college engineering programs. The programs, designed for K-12 level education, include hands-on activities to increase interest in engineering. Discusses results of the application of a specific curriculum developed by a non-profit group known as Project Lead the Way, indicating the early exposure to engineering can have a positive impact on the number of students entering engineering as undergraduates, as well as early success of these students in science courses.

Author Last Name: Selingo

Author First Name: Jeffrey

Publisher: American Society for Engineering Education

Publication Date: 2007

Publication Title: PRISM

Volume: 16

Issue: 8

Source: ASEE

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Pedagogy & Instruction Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Pre-college biomedical engineering program for girls

Resource Title: Pre-college biomedical engineering program for girls

Description/Annotation: This paper discusses the Women in Engineering and Technology (WEIT)-FEMME program at New Jersey Institute of Technology (NJIT). This program, geared toward academically talented 4th through 9th grade girls, encourage them to pursue careers in science, technology, engineering, and mathematics (STEM) fields. In 2001, the academic curriculum began integrating engineering principles with biomedical science, and introduces girls to the role of engineers as "problem-solvers and helpers".

Author Last Name: Kopel

Author First Name: N.B.
Additional Author: Cano
: R.M.
Additional Author: Heyman
: S.B.
Additional Author: Alvarez
: T.L.
Publication Date: 2003
Publication Title: Bioengineering Conference
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Curriculum Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

Predicting Scientific Understanding of Prospective Elementary Teachers: Role of Gender, Education Level, Courses in Science, and Attitudes Toward Science and Mathematics

Resource Title: Predicting Scientific Understanding of Prospective Elementary Teachers: Role of Gender, Education Level, Courses in Science, and Attitudes Toward Science and Mathematics

Description/Annotation: A multiple regression analysis of the relationship between prospective teachers' scientific understanding and Gender, Education Level, Courses in Science, Attitude Towards Science, and Attitude Towards Mathematics is reported. Undergraduate elementary science students in an urban doctoral-level university in the United States participated in this study. The results of this study showed Gender, completion of courses in High School Chemistry and Physics, College Chemistry and Physics, and Attitudes Toward Mathematics and Science significantly correlated with scientific understanding.

Author Last Name: Kumar
Author First Name: David D.
Additional Author: Morris
:
John D.
Publication Date: 2005, Dec
Page Numbers: 387-391
Publication Title: Journal of Science Education and Technology
Volume: 14
Issue: 4
Source: Springer
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors Educational Factors » Formal Academic Preparation Individual Beliefs
and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Predicting the Academic Engagement of Women and Students at Historically Black Universities: A Social Cognitive Approach

Resource Title: Predicting the Academic Engagement of Women and Students at Historically Black Universities: A Social Cognitive Approach

Description/Annotation: This paper examines the utility of social cognitive career theory (SCCT) in predicting the academic persistence goals of (a) women versus men and of (b) students at historically Black versus predominantly White universities. Participants (487 students enrolled in introductory engineering courses at three universities) completed measures of SCCT's central person and contextual variables. Findings indicated that the set of SCCT variables accounted for a large proportion of the variance in academic goals, regardless of student sex or university type. Implications for future research and for practical efforts to attract and retain women and students of color within engineering are discussed.

Author Last Name: Lent
Author First Name: Robert W.

Additional Author: Schmidt
: Janet A.
Additional Author: Schmidt
: Linda C.
Additional Author: Gloster
: Clay S.
Additional Author: Wilkins
: Gregory
Publication Date: 2003
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Predicting Women's Interest and Choice of an IT Career

Resource Title: Predicting Women's Interest and Choice of an IT Career
Description/Annotation: Study examining parental support, computer use, positive attitudes and sources of career information as career influencing factors for women in IT. Study offers interventions appropriate to promote interest in IT.
Author Last Name: Creamer
Author First Name: Elizabeth G.
Additional Author: Lee
: Soyoung
Additional Author: Meszaros
: Peggy
Additional Author: Burger
: Carol

Additional Author: Laughlin
:
Anne
Publisher: Idea Group Reference
Publisher Location: Hershey, PA
Publication Date: 2006
Page Numbers: 1023-1028
Publication Title: Encyclopedia of Gender and Information Technology
Source: Amazon
Source Type: Partial text, Available for sale

Resource Type Categories: Book » Book Chapter Topical Categories: Cultural Influences Individual Beliefs and Behaviors » Family & Peers Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Predicting Women's Interest and Choice in a Career in Information Technology: A Statistical Model

Resource Title: Predicting Women's Interest and Choice in a Career in Information Technology: A Statistical Model

Description/Annotation: Book chapter explains a theoretically driven and empirically supported model that identifies key factors that predict high school and college women's interest and choice in a career in information technology (IT). At the center of the model is the developmental construct of self-authorship and a set of variables related to the process individuals use to make personal and educational decisions. It is our conclusion that reliance on guidance from a narrow circle of trusted others that include family members, but rarely teachers and counselors, is one reason that women continue to express an interest in sex-typical careers. Findings have direct implications for recruiting and advising practice.

Author Last Name: Creamer
Author First Name: E.G.
Additional Author: Lee
:
S.

Additional Author: Meszaros
:
Publisher: AK Peters
Publisher Location: Wellesley, MA
Publication Date: 2007
Page Numbers: 15-38
Publication Title: Reconfiguring the Firewall: Recruiting Women Across continents and Cultures
Source: CRC Press
Source Type: Summary, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Predictors and Outcomes of Parental Involvement with Students in High School Science Classes

Resource Title: Predictors and Outcomes of Parental Involvement with Students in High School Science Classes

Description/Annotation: Demographic and psychological predictors of parent involvement with their children's science education both at home and at school were examined during high school. Associations between both types of parent involvement and numerous academic outcomes were tested. Data were collected from 244 high school students in 12 different science classrooms using surveys, the Experience Sampling Method (ESM), and school records. Results revealed low overall parent involvement. Demographic characteristics predicted parent involvement at school, but not at home, while student reported interest in science predicted both. Different dimensions of parent involvement affected outcomes differently. Among the most pronounced influences were those that parent involvement at home had with student efficacy, interest in science, and motivational states in science class. Funded by NSF GSE under award #0827526.

Author Last Name: Shumow

Author First Name: Lee

Additional Author: Lyutykh
: Elena

Additional Author: Schmidt
: Jennifer A.

Publication Date: 2011

Page Numbers: 81-98

Publication Title: School Community Journal

Volume: 21

Issue: 2

Source: ERIC

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Cultural Influences » Family Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Predictors of Female and Male Computer Science Students' Grades

Resource Title:	Predictors of Female and Male Computer Science Students' Grades
Description/Annotation:	This study investigated gender differences in predictors of computer science (CS) grades with the goal of assembling a profile of CS majors who do well in their courses. This research found that oftentimes what is beneficial for female majors also aids males' performance. For male and female majors alike, intrinsic motivation, being emotionally healthy, and experiencing little stress predicted high CS grades. Both males and females thrived academically when they had excellent instructors using good pedagogical practices. However, several predictors of CS grades were gender-specific.
Author Last Name:	Beyer
Author First Name:	Sylvia
Publication Date:	2008
Page Numbers:	377-409
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	14
Issue:	4
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Formal Academic Preparation

Preferences and Challenges for Female Graduate Engineering Students: A Survey Based Study

Resource Title: Preferences and Challenges for Female Graduate Engineering Students: A Survey Based Study

Description/Annotation: The study presented here examines the preferences and self-recognized challenges identified by international female graduate engineering students at U.S. schools. These findings can also be used by institutions to attract more female students in graduate engineering programs by integrating in ongoing recruitment and retention efforts. Research findings are based on a comprehensive online survey designed and conducted by the authors, who are of diverse nationality, educational background, and gender.

Author Last Name: Srivastava

Author First Name: Soumya

Additional Author: Srivastava

: Anurag

Additional Author: Minerick

: Adrienne

Additional Author: Schulz

: Noel

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Pregnant Crash Test Dummies: Rethinking Standards and Reference Models

Resource Title: Pregnant Crash Test Dummies: Rethinking Standards and Reference Models

Description/Annotation: This case study from Stanford's "Gendered Innovations" analyzes how the design of conventional seatbelts do not fit pregnant women properly and is a major safety concern. The case study

indicates that analyzing sex has led to the development of pregnant crash dummies and computer simulations. According to this case study, taking both women and men as the norm may expand creativity in science and technology.

Author Last Name: Schiebinger
Author First Name: L.
Additional Author: Klinge
:
Additional Author: Sanchez de Madariaga
:
Additional Author: Schraudner
:
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2011
Source: Stanford University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Pregnant Pause: Deciding when to tell your boss you are expecting a baby

Resource Title: Pregnant Pause: Deciding when to tell your boss you are expecting a baby

Description/Annotation: A brief article about the proper time to tell a prospective boss or new boss that you are pregnant. Pregnancy discrimination, although illegal, is common and deciding the proper timing of the announcement can make a difference in whether a job offer is received. The author discusses different types of positions and which ones may be more appropriate for telling the truth up front, and how hiding the pregnancy can foster mistrust between your boss and you. For working women.

Author Last Name: Shellenbarger
Author First Name: Sue
Publisher: Wall Street Journal
Publisher Location: New York, NY
Publication Date: 2004, Oct 14
Page Numbers: D-1
Publication Title: Wall Street Journal (Eastern Edition)
Source: University of Wisconsin-Parkside
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Stereotype Threat](#)

Preparedness of Engineering Freshman to Inquiry-Based Learning

Resource Title: Preparedness of Engineering Freshman to Inquiry-Based Learning

Description/Annotation: 8-page article by civil engineering professor presenting results of surveys that assessed level of learning skills of engineering freshman. Poor time management impacted grades and achievement.

Author Last Name: Bernold
Author First Name: Leonhard E.
Publication Date: 2007, April
Page Numbers: 99-106
Publication Title: Journal of Professional Issues in Engineering Education and Practice
Volume: 133
Issue: 2
Source: ASCE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Preparing K-12 Students for Engineering Studies by Improving 3-D Spatial Skills

Resource Title: Preparing K-12 Students for Engineering Studies by Improving 3-D Spatial Skills

Description/Annotation: Well-developed 3-D spatial skills have been shown to be important for success in a number of technological fields including engineering, medicine, chemistry, computer science, mathematics, and architecture. Michigan Technological University has been offering a remedial course since 1993 aimed at improving the 3-D spatial skills of first-year engineering students, particularly women. In 1998, through funding from the National Science Foundation, multimedia software and a workbook were developed in support of the spatial skills course. In 2003, additional funding was received to test the materials with middle and high school audiences. The objectives of the current study are to determine the extent to which the materials created for college students are age appropriate for younger students for improving 3-D spatial skills, particularly for girls. The materials were tested in a pilot study of middle school students (age ~13) and subsequently with middle and high school students (age ~16). Pre- and post-tests were administered to determine the impact of the materials on students' skills. The students also evaluated each module of the software and workbook to assess ease of use, ease of understanding, and general impressions. The paper describes the studies conducted with younger audiences and will present initial findings. Funded by NSF GSE under award #0429020.

Author Last Name: Hungwe

Author First Name: Kedmon N.

Additional Author: Sorby

: Sheryl

Additional Author: Drummer

: Thomas

Additional Author: Molzon

: Ray
Publication Date: 2007
Page Numbers: 127-136
Publication Title: International Journal of Learning
Volume: 14
Issue: 2
Source: Common Ground Publisher
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Cultural Influences Educational Factors » Curriculum Educational Factors Cultural Influences
» Gender Diversity Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy &
Instruction Publications by Funder

PREPARING THE NEXT GENERATION OF STEM INNOVATORS: Identifying and Developing our Nation's Human Capital

Resource Title: PREPARING THE NEXT GENERATION OF STEM
INNOVATORS: Identifying and Developing our Nation's Human
Capital

Description/Annotation: National Science Board report with recommendations for policy
and research agendas to advance the next generation of STEM
innovators. Major topics include formal and informal interventions
to develop student abilities, develop and implement talent
assessments to recognize potential, and fostering a supportive
cultural ecosystem to encourage student success.

Author Last Name: NSB

Publisher: National Science Foundation

Publisher Location: Arlington, VA

Publication Date: 2010 May 5

Issue: NSB-10-33

Source: NSF/NSB

Source Type: Link to full text

Connected Advocates: Projects & Programs » ENGAGE in Engineering Resource Type
Categories: Articles/Reports » US National Reports Topical Categories: Educational Factors » Formal Academic Preparation Educational Factors » Pedagogy & Instruction Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Prestige matters: Women's under-representation in the most prestigious graduate programs

Resource Title:	Prestige matters: Women's under-representation in the most prestigious graduate programs
Description/Annotation:	This article details research presented at Stanford University on the analysis of gender segregation in graduate program prestige. The research shows that in the US, men and women PhDs are segregated not only by field but also by the prestige of their doctoral programs. Relative to field averages, women tend to be underrepresented among graduates of the highest- and the lowest-ranked doctoral programs. The article discusses the sources of this pattern, and its implications for research on gender in higher education and for institutional diversity efforts.
Author Last Name:	Cech
Author First Name:	Erin
Publisher:	Clayman Institute
Publisher Location:	Stanford, CA
Publication Date:	2012, Feb 2
Publication Title:	Gender News
Source:	Clayman Institute
Source Type:	Full Text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical Categories: Cultural Influences Educational Factors Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Educational Factors » Retention

Principles for Best Practices: A Collection of Suggested Procedures for Improving the Climate for Women

Faculty Members in Science and Engineering Departments

Resource Title:	Principles for Best Practices: A Collection of Suggested Procedures for Improving the Climate for Women Faculty Members in Science and Engineering Departments
Description/Annotation:	Women faculty members were asked what programs or behaviors added to a supportive environment for the success of their career, and results are published in this report. Three major principles of effective leadership were identified as being present in successful programs: transparency, uniformity, and assistance. Problems were identified by the faculty members, and the three principles discussed in relation to them. For academics and the higher education institutions who employ them.
Author Last Name:	Waltman
Author First Name:	Jean
Additional Author:	Hollenshead
:	Carol
Publisher:	The Center for the Education of Women
Publisher Location:	Ann Arbor, MI
Publication Date:	2005
Page Numbers:	1-9
Source:	University of Michigan
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Probabilities and Predictions: Modeling the Development of Scientific Competence

Resource Title:	Probabilities and Predictions: Modeling the Development of Scientific Competence
Description/Annotation:	The IMMEX (Interactive Multi-Media Exercises) Web-based problem set platform enables the online delivery of complex,

multimedia simulations, the rapid collection of student performance data, and has already been used in several genetic simulations. The next step is the use of these data to understand and improve student learning in a formative manner. This article describes the development of probabilistic models of undergraduate student problem solving in molecular genetics that detailed the spectrum of strategies students used when problem solving, and how the strategic approaches evolved with experience. The actions of 776 university sophomore biology majors from three molecular biology lecture courses were recorded and analyzed. Authors suggest that instructor interventions based on early student performances with these simulations may assist students to recognize effective and efficient problem-solving strategies and enhance learning. Funded by NSF GSE under award #0429156.

Author Last Name: Stevens
Author First Name: Rob
Additional Author: Johnson
: David F.
Additional Author: Soller
: Amy
Publication Date: 2005
Page Numbers: 42-57
Publication Title: Cell Biology Education
Volume: 4
Issue: 1
Source: NIH
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Problem Solving in the Natural Sciences and Early Adolescent Girls' Gender Roles and Self-Esteem a

Qualitative and Quantitative Analysis From an Ecological Perspective

Resource Title:	Problem Solving in the Natural Sciences and Early Adolescent Girls' Gender Roles and Self-Esteem a Qualitative and Quantitative Analysis From an Ecological Perspective
Description/Annotation:	This paper discusses the impact of gender roles and self-esteem on early adolescent girls' abilities to solve problems when participating in natural science-related activities. Bronfenbrenner's human ecology model and Barker's behavior setting theory were used to assess how environmental contexts relate to problem solving in scientific contexts. Authors present a discussion for the examination of environmental factors when assessing early adolescent girls' gender roles and self-esteem.
Author Last Name:	Slavkin
Author First Name:	Michael
Publication Date:	2001
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	7
Issue:	3
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Problematizations of women's underrepresentation: Comparing educator interviews with the literature

Resource Title:	Problematizations of women's underrepresentation: Comparing educator interviews with the literature
Description/Annotation:	This paper examines the motivations of a diverse group of engineering educators to undertake work on feminist engineering education initiatives. It builds on prior scholarship from the field of Science and Technology Studies (STS) of the ways in which underrepresentation has been framed as a problem. Participants'

responses to the question of why underrepresentation is a problem are quoted at length and discussed. Several differences between the publications and interview data are identified and the implications of these findings for engineering education, engineering education research, underrepresentation, and diversity more broadly, are then discussed.

Author Last Name: Beddoes
Author First Name: Kacey
Publisher: IEEE
Publication Date: 2011, Oct
Page Numbers: F4H-1 - F4H-6
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Professional Development Panel for Women Faculty: Pathways and Checkpoints

Resource Title: Professional Development Panel for Women Faculty: Pathways and Checkpoints

Description/Annotation: This paper discusses a panel brining together women faculty to address some of the paths and steps in navigating a successful academic career. Three pathways are covered: the non-tenure research track, industry or government experience first, and the traditional academic track. Checkpoints addressed include tenure, promotion to full professor, and moving into the administrative track. Panelists include women from all three paths at different points in their careers. The panel focuses on the positive actions women can control and use to define a thriving career in academia.

Author Last Name: Dougherty
Author First Name: F. Carroll

Additional Author: Schrader
:
Cheryl B.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#)

Professional Role Confidence and Gendered Persistence in Engineering

Resource Title: Professional Role Confidence and Gendered Persistence in Engineering

Description/Annotation: Social psychological research on gendered persistence in science, technology, engineering, and mathematics (STEM) professions is dominated by two explanations: women leave because they perceive their family plans to be at odds with demands of STEM careers, and women leave due to low self-assessment of their skills in STEM's intellectual tasks, net of their performance. This study uses original panel data to examine behavioral and intentional persistence among students who enter an engineering major in college. Surprisingly, family plans do not contribute to women's attrition during college but are negatively associated with men's intentions to pursue an engineering career. Additionally, math self-assessment does not predict behavioral or intentional persistence once students enroll in a STEM major. This study introduces professional role confidence—individuals' confidence in their ability to successfully fulfill the roles, competencies, and identity features of a profession—and argues that women's lack of this confidence, compared to men, reduces their likelihood of remaining in engineering majors and careers. We find that professional role confidence predicts behavioral and intentional persistence, and that women's relative lack of this confidence contributes to their attrition.

Author Last Name: Cech
Author First Name: Erin

Additional Author: Rubineau
:
Additional Author: Silbey
:
Additional Author: Seron
:
Publication Title: American Sociological Review
Volume: 76
Issue: 5
Source: Sage
DOI Bookmark: DOI: 10.1177/0003122411420815
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) » [Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Professional Societies Making Engineering Outreach Work: Good Input Results in Good Output

Resource Title: Professional Societies Making Engineering Outreach Work: Good Input Results in Good Output

Description/Annotation: This paper addresses the current and potential impact of the outreach activities that engineering professional societies (and others) offer to children and young adults and describes how to advance the outreach state of the art by using methods and tools that most engineers routinely use in their technical projects but do not typically transfer to an outreach project: research, training, adoption of best practices, and awareness of user needs and culture. Also critical, assessment (establishing goals, identifying outcomes metrics, and evaluating success) is discussed in the companion paper “Outcomes-Based Assessment: Driving Outreach Program Effectiveness” published in this special issue. Specifically, the paper discusses challenges facing professional society outreach efforts; key and proven practices for outreach success, including assessment; and the use of social science

research in designing outreach programs. An extensive list of resources available to assist in designing effective engineering outreach is also provided. Funded by NSF GSE under award #0937306.

Author Last Name: Bogue
Author First Name: Barbara
Additional Author: Cady
: Elizabeth T.
Additional Author: Shanahan
: Betty
Publication Date: 2013
Page Numbers: 11-26
Publication Title: Leadership and Management in Engineering
Volume: 13
Issue: 1
Source: ASCE
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Mentoring Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Professional Women and Minorities: A Human Resources Data Compendium

Resource Title: Professional Women and Minorities: A Human Resources Data Compendium
Description/Annotation: Biennial report from Commission on Professionals in Science and Technology. Data on enrollments, degrees, and the general, academic, and federal workforce by field and sub-field.
Author Last Name: CPST
Publisher: CPST
Publication Date: Biennial

Source: AGi
Source Type: Abstract, Available for sale

Resource Type Categories: Data and Statistics » Reports Topical Categories: Career Factors Educational Factors Career Factors » Employment Educational Factors » Formal Academic Preparation

Profiles of Engineering and Engineering Technology Colleges: 2011

Resource Title: Profiles of Engineering and Engineering Technology Colleges: 2011

Description/Annotation: This 531-page data book from the American Society for Engineering Education (ASEE) provides many graphs, charts and tables detailing the state of engineering education today. The book also provides a listing for all college enrollments, degrees awarded, faculty and research expenditures at the undergraduate and graduate levels for engineering and undergraduate level for engineering technology. This book is available for purchase.

Author Last Name: ASEE
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2012, Jun
Volume: 2011
Source: ASEE
Source Type: Available for Sale

Resource Type Categories: Data and Statistics » Reports Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

Profiles of Persistence Among Women in Electrical and Computer Engineering

Resource Title: Profiles of Persistence Among Women in Electrical and Computer Engineering

Description/Annotation: This 10 page paper discusses the results of a qualitative research study conducted in 1999 designed to gain insight into women being underrepresented among engineering faculty in academia.

Author Last Name: Graham

Author First Name: Leslie Pendleton

Publisher: WEPAN

Publication Date: 2000

Page Numbers: 10

Source: WEPAN (Proc. of the 2000 WEPAN National Conference)

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Retention](#)

Programmatic Efforts Affect Retention of Women in Science and Engineering

Resource Title: Programmatic Efforts Affect Retention of Women in Science and Engineering

Description/Annotation: This article presents findings from a study that investigated the impact of a women in science and engineering residence program (WISE-RP) on the retention of women in science and engineering disciplines. From a matched sample of 1,852 science and engineering students, the authors compared WISE-RP participants with male and female control students for science and engineering retention. The findings suggest a strong connection between WISE-KP participation and science retention, but not engineering retention. The results also indicate that a WISE-RP is more effective in retaining White and Asian students than underrepresented students of color. The authors highlight the importance of combining academic and personal support in a residential learning program and draw implications for retaining women in science, mathematics, and engineering disciplines.

Author Last Name: Hathaway

Author First Name: Russel S.

Additional Author: Sharp

: Sally
Additional Author: Davis
: Cinda-Sue
Publication Date: 2001
Page Numbers: 107-124
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 2
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Programming with a Purpose: An Experimental Investigation on the Role Narrative Plays in Supporting Girls' Understanding of Programming Concepts

Resource Title: Programming with a Purpose: An Experimental Investigation on the Role Narrative Plays in Supporting Girls' Understanding of Programming Concepts

Description/Annotation: NSF research abstract for a project investigating whether girls are better able to learn programming skills when a relatable context is used. Two groups of ninth-grade students were taught Java for the study. One group used abstract shapes to form a screen-saver like display, while the other group made the same display but as an ice skating routine. This abstract does not describe the results of the study.

Author Last Name: Brunner
Author First Name: Cornelia
Additional Author: Bennett
: Dorothy
Publisher: National Science Foundation

Publication Date: 2003, Sep 1
Publication Title: NSF Award Abstract #0332862
Source: NSF
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Programs and Practices Making a Difference: A Cross-Case Analysis Identifying Programs and Factors that Influence Recruitment and Retention of Women Engineering Students

Resource Title: Programs and Practices Making a Difference: A Cross-Case Analysis Identifying Programs and Factors that Influence Recruitment and Retention of Women Engineering Students

Description/Annotation: A cross-case analysis of six engineering schools based on rich qualitative data from faculty, student, and administrator interviews, as well as observations and documents, provides a unique opportunity to identify trends and unique practices used to address the recruitment and retention of women engineering students. This paper focuses specifically on how these institutions implement K-12 outreach, admissions, summer/bridge, and first and second-year support programs.

Author Last Name: Trautvetter
Author First Name: Lois Calian
Additional Author: Marra
:
Rose M.
Additional Author: Lattuca
:
Lisa R.
Additional Author: Piacentini
:
Katie L.
Additional Author: Knight
:
David B.

Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Programs for Undergraduate Women in Science and Engineering: Issues, Problems, and Solutions

Resource Title: Programs for Undergraduate Women in Science and Engineering: Issues, Problems, and Solutions

Description/Annotation: This research article reports the findings of a study which examines 50 U.S. programs for undergraduate women in science and engineering. Funded by the National Science Foundation, the study found ongoing issues with the atmosphere towards women in the classroom, the structure of academic programs, and poor faculty attitudes. The findings, which appeared in the October 2011 issue of *Gender & Society* from SWS, indicate that while women earn 58 percent of all undergraduate degrees in the U.S., women receive only 21 percent of computer and information science degrees, and only 19 percent of engineering degrees. The report indicates that university program directors attribute women's self-confidence and their knowledge about careers in science to be a bigger obstacle than their academic ability.

Author Last Name: Fox
Author First Name: Mary Frank
Additional Author: Sonnert
: Gerhard
Additional Author: Nikiforova
: Irina
Publisher: Sage Publications on behalf of Sociologists for Women in Society
Publisher Location: Thousand Oaks, CA
Publication Date: 2011, Oct

Page Numbers: 589-615
Publication Title: Gender & Society
Volume: 25
Issue: 5
Source: SWS
Source Type: Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Programs for Undergraduate Women in Science and Engineering: Issues, Problems, and Solutions

Resource Title: Programs for Undergraduate Women in Science and Engineering: Issues, Problems, and Solutions

Description/Annotation: We analyze programs for undergraduate women in science and engineering as strategic research sites in the study of disparities between women and men in scientific fields within higher education. Based on responses to a survey of directors of the universe of these programs in the United States, the findings reveal key patterns in the programs' 1) definitions of the issues of women in science and engineering, 2) their solutions to address the issues, 3) their goals and perceived success with the goals, and 4) their organizational characteristics and relationship to larger institutional environments. The findings--which are conceptually grounded in the distinction between structural/institutional and individual issues--have implications for understanding gender, science, and higher education, and for initiatives undertaken to improve the condition of women in scientific fields.

Author Last Name: Fox
Author First Name: Mary Frank
Additional Author: Sonnert
: Gerhard
Additional Author: Nikiforova
: Irina

Publication Date: 2011, Oct
Page Numbers: 589-615
Publication Title: Gender & Society
Volume: 25
Issue: 5
DOI Bookmark: 10.1177/0891243211416809
Database Name: Sage Journals Online
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Project Exploration: 10-Year Retrospective Program Evaluation Summative Report

Resource Title: Project Exploration: 10-Year Retrospective Program Evaluation Summative Report

Description/Annotation: Ten year retrospective evaluation of Project Exploration's out of school science program for urban high school students in Chicago by researchers from the Center for Research, Evaluation, and Assessment (REA) at the Lawrence Hall of Science, University of California, Berkeley. Valued program outcomes include increased science capacity, improved teamwork, communication and confidence levels and fostering of adult-teen relationships through participation in a science community of practice.

Author Last Name: Chi
Author First Name: Bernadette
Additional Author: Snow
: Juna Z.
Additional Author: Goldstein
: David
Additional Author: Lee
: Shirley

Additional Author: Chung
:
Publisher: Center for Research, Evaluation & Assessment (REA) , Lawrence Hall of Science, UC Berkeley
Publisher Location: CA, Berkeley
Publication Date: 2010, Dec
Page Numbers: 82
Source: ProjectExploration
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Project Exploration

Resource Title: Project Exploration

Description/Annotation: Project Exploration is a nonprofit science education organization that makes science, technology, engineering, and mathematics (STEM) accessible to the public—especially minority youth and girls—through personalized experiences with scientists and science. Project Exploration works toward enabling students to graduate and go to college; placing students on a pipeline to professional careers in science; and creating educational revenue-generating entrepreneurial programs that enable access to science.

Web site Link: [Link to Resource](#)

More: Project Exploration was founded in 1999 by paleontologist Paul Sereno and educator Gabrielle Lyon.

Resources: The Project Exploration website has a wealth of resources for students and teachers interested in STEM, including:

- [Discover Your Summer](#) - Database of science summer camps. Search by grade, program topic, program type, and area
- Classroom Activities
- Books & Bibliographies - Recommended reading
- Blog

- Project Exploration News
- [College Resource Guide](#)- Information about financial aid, test taking, applications, and college essays

Site Access Details: This is a publicly accessible site.

Partners and Funding: Project Exploration is a nonprofit organization and is funded by corporate and individual sponsors.

Contact E-mail: info@projectexploration.org

Last Update Date: June 15, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Project Implicit Bibliography

Resource Title: Project Implicit Bibliography

Description/Annotation: Online bibliography of unpublished manuscripts, in press papers, and published papers from Project Implicit researchers from 1990 to the present. Project Implicit blends basic research and educational outreach in a virtual laboratory at which visitors can examine their own hidden biases.

Author Last Name: Project Implicit

Publisher: Project Implicit

Source: ProjectImplicit

Source Type: Online bibliography, research papers available upon request from site

Resource Type Categories: [Articles/Reports](#) » [Bibliographies](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Career Factors](#) » [Stereotype Threat](#)

Project Implicit

Resource Title: Project Implicit

Description/Annotation: Project Implicit blends basic research and educational outreach in a virtual laboratory at which visitors can examine their own hidden biases.

Web site Link: [Link to Resource](#)

More: Project Implicit comprises a network of laboratories, technicians, and research scientists at Harvard University, the University of Washington, and the University of Virginia providing web based research services for researchers, corporations, non-profits, and educators.

Resources: Project Implicit has two websites accessible from implicit.harvard.edu/implicit/:

- Demonstration site allows web visitors to take the Implicit Association Test (IAT) measuring personal or implicit biases.
- Research site allows web visitors to participate in on-going research measuring implicit associations for a variety of topics.

Site Access Details: Any web visitor can access the demonstration site. Visitors to the research site register and are uniquely identifiable every time they visit Project Implicit.

Partners and Funding: The project was initially launched as a demonstration website in 1998 at Yale University, and began to function fully as a research enterprise following a grant from the National Institute of Mental Health in 2003. Ongoing funding comes from the National Science Foundation, National Institute of Mental Health, Indiana University, Rudd Institute and the Level Playing Field Institute.

Contact E-mail: feedback@projectimplicit.net

Last Update Date: July 1, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Career Factors](#) » [Stereotype Threat](#)

Project to Assess Climate in Engineering (PACE)

Resource Title: Project to Assess Climate in Engineering (PACE)

Description/Annotation: PACE is a multi-site (22 schools) research project intended to identify issues that affect persistence rates among engineering undergraduates.

Web site Link: [Link to Resource](#)

More: The goal is to identify and address university climate issues to improve retention for all undergraduate engineering students.

Resources: The site identifies the participating institutions, the PACE research team, and instructions to institutions to perform climate surveys and interviews.

Site Access Details: The site is publicly accessible, although, it appears to be an informational site for institutions participating in the program.

Partners and Funding: PACE is headquartered at the Center for Workforce Development at the University of Washington. Funding is from the Alfred P. Sloan Foundation with a supplemental grant from The Engineering Information Foundation.

Contact E-mail: paceteam@u.washington.edu

Last Update Date: May 20, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors](#) » [Retention Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Projections of Education Statistics to 2020

Resource Title: Projections of Education Statistics to 2020

Description/Annotation: This annual report includes key statistics on elementary and secondary schools and postsecondary degree-granting institutions in the U.S. The tables, figures, and text include data and projections on enrollment, graduates, teachers, and expenditures to the year 2020 at the national and state level. In addition, the report includes a methodology section describing models and assumptions used to develop such projections by the National Center for Education Statistics (NCES).

Author Last Name: Hussar

Author First Name: William J.

Additional Author: Bailey

: Tabitha M.

Publisher: U.S. Department of Education, National Center for Education Statistics

Publisher Location: Washington, DC

Publication Date: 2011, Sep

Page Numbers: 1-163

Source: NCES
Source Type: Full Text

Resource Type Categories: Data and Statistics » Reports Topical Categories: Career Factors Educational Factors Career Factors » Employment Educational Factors » Formal Academic Preparation Educational Factors » Retention

Promoting Gender Equity In Academic Departments: A Study Of Department Heads In Top-ranked Chemistry Departments

Resource Title: Promoting Gender Equity In Academic Departments: A Study Of Department Heads In Top-ranked Chemistry Departments

Description/Annotation: This paper reports the results of a systematic effort to increase the representation of women among higher education chemistry faculty by increasing the commitment of department heads in leading departments to the hiring and support of women faculty. Results indicate that participants in a carefully planned intervention changed their attitudes regarding reasons underlying women's underrepresentation and barriers to their progress in the field from pre- to postworkshop. Participants also reported commitment to change immediately after the event and engaging in a number of specific change efforts in the following months. While the quality of these change efforts was not related to changes in attitudes, those with fewer women in their department were more likely to report more fully on change efforts.

Author Last Name: Stockard

Author First Name: Jean

Additional Author: Greene

: Jessica

Additional Author: Lewis

: Priscilla

Additional Author: Richmond

: Geraldine

Publication Date: 2008

Page Numbers: 1-27

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Source: University of Oregon
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#)

Promoting Girls' Interest in Technology through Technology Education: A Research Study

Resource Title: Promoting Girls' Interest in Technology through Technology Education: A Research Study

Description/Annotation: The article summarises the design and outcome of an inquiry into the promotion of interest in technology by technology education. The reason for the present study is the low proportion of women in technical occupations, studies or subjects.

Author Last Name: Mammes

Author First Name: Ingelore

Publication Date: 2004

Page Numbers: 89-100

Publication Title: International Journal of Technology and Design Education

Volume: 14

Issue: 2

Source: Springer

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Promoting Institutional Change via the Faculty Search Process: Career Workshops and a National Database

Resource Title: Promoting Institutional Change via the Faculty Search Process: Career Workshops and a National Database

Description/Annotation: In response to under-representation of women and U.S. ethnic minorities in STEM and the interest of bridging the Ph.D and postdoctoral scholar steps into an academic career, the Cockrell School of Engineering at the University of Texas at Austin, the George R. Brown School of Engineering at Rice University, and the Wiess School of Natural Sciences at Rice University in Houston, Texas have designed and hosted workshops since 2004 entitled, Negotiating the Ideal Faculty Position. The response to these workshops indicated a high level of interest in the topic and this paper reviews follow up surveys completed by the workshop participants and the workshop's influence on their career paths.

Author Last Name: Rinehart

Author First Name: Jan

Additional Author: Woods

: Sherry

Additional Author: Richards-Kortum

: Rebecca

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Promoting Mathematical and Computer Self-Concept Among Female College Students: Is There a Role of Single-Sex Secondary Education?

Resource Title: Promoting Mathematical and Computer Self-Concept Among Female College Students: Is There a Role of Single-Sex Secondary Education?

Description/Annotation: This study examines how secondary education correlates with mathematical and computer self-concept among women entering college. The study uses multilevel modeling to address secondary school-level effects in a national sample of college-going women. The analyses suggest that all-girls secondary schools- whether independent or Catholic-affiliated- produce graduates who enter college marginally more confident in their mathematical and computer skills than women from equivalent backgrounds who attend coeducational schools.

Author Last Name: Sax
Author First Name: Linda J.
Additional Author: Shapiro
: Casey A.
Additional Author: Eagan
: M. Kevin
Publication Date: 2011
Page Numbers: 325-355
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Promoting Success: Possible Factors Behind Achievement of Underrepresented Students in a Peer-Led Small-Group Stem Workshop Program

Resource Title: Promoting Success: Possible Factors Behind Achievement of Underrepresented Students in a Peer-Led Small-Group Stem Workshop Program

Description/Annotation: Article reports that peer-led small-group learning programs can help to counteract some of the barriers to successful learning that are common to all undergraduates but are particularly detrimental to the performance of underrepresented students. Offers suggestions for implementing critical qualities of peer-led small-group programs in large lecture classes.

Author Last Name: Micari
Author First Name: Marina
Additional Author: Drane
: Denise
Publisher: Begell House
Publisher Location: Redding, CT
Publication Date: 2007
Page Numbers: 295-315
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 3
Source: Northwestern University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Promoting Undergraduate Studies in Science and Engineering

Resource Title: Promoting Undergraduate Studies in Science and Engineering

Description/Annotation: A 23 page chapter in a book exploring how to increase the number of U.S. students who pursue careers in science and engineering. The chapter, written by Dr. Marsha Matyas, Director of the Women in Science Program in the Directorate for Education and Human Resources of the AAAS, describes areas that have been targeted thus far striving to increase both gender and racial diversity in undergraduate science and engineering curricula. She covers highlights of several undergraduate

programs, discusses implementation of programs, and addresses future steps to perpetuate the objectives of increasing women in science and engineering programs. Colleges and universities with science and engineering programs will find this chapter useful in outlining objectives and action steps for recruitment and retention of women and racially diverse students, in addition to benchmarking their efforts compared to other similar programs.

Author Last Name: Matyas
Author First Name: Marsha L.
Publisher: The National Academies Press
Publisher Location: Washington, D.C.
Publication Date: 1992, Oct
Page Numbers: 43-65
Publication Title: Science and Engineering Programs: On Target for Women?
Source: Google Book Search
Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Promoting Women as Leaders for Engineering: The Role of Individuals, Organizations and Professional Societies

Resource Title: Promoting Women as Leaders for Engineering: The Role of Individuals, Organizations and Professional Societies

Description/Annotation: This paper summarizes the activities and outcomes of a conference held in May 2004 at the University of Connecticut. As part of a series of conferences hosted by members of the Women in Engineering Leadership Institute (WELI), the Summit conference invited engineering stakeholders from academia, industry and professional societies to work collaboratively to develop action plans to increase the number of women leaders in engineering.

Author Last Name: Aultman-Hall

Author First Name: Lisa
Additional Author: Holmen
: Britt
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Proper Methodologies for Psychological and Sociological Studies Conducted via the Internet

Resource Title: Proper Methodologies for Psychological and Sociological Studies Conducted via the Internet
Description/Annotation: Practical and well-founded advice on internet-conducted research in the fields of psychology and sociology.
Author Last Name: Hewson
Author First Name: Claire M.
Additional Author: Laurent
: D.
Additional Author: Vogel
: C. M.
Publisher: Psychonomic Society
Publisher Location: Austin, TX
Publication Date: 1996
Page Numbers: 186-191
Publication Title: Behavior Research Methods, Instruments & Computers
Volume: 28
Issue: 2

Source: Springer

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Media & Entertainment](#)

Proportions of women faculty and students in the mathematical sciences: a trend analysis by institutional group

Resource Title: Proportions of women faculty and students in the mathematical sciences: a trend analysis by institutional group

Description/Annotation: This 11-page article briefly discusses trends in the proportion of women students and faculty in mathematics, along with some of the implications of these trends in terms of the theory of role-modeling.

Author Last Name: Sharpe

Author First Name: Norean Radke

Additional Author: Sonnert

: Gerhard

Publication Date: 1999

Page Numbers: 17-27

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 5

Issue: 1

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Psychological Sense of Community (PSOC) for Women in Engineering

Resource Title:	Psychological Sense of Community (PSOC) for Women in Engineering
Description/Annotation:	Psychological Sense of Community (PSOC), a central concept from community psychology, provides a framework for understanding and assessing women's sense of belonging in the engineering environments of work, education, and, for students, residential life. Women's psychological lives within the engineering environment cannot be disconnected from the social environment. This overview explores the issue with attention to academics, workplace, and campus residence.
Author Last Name:	AWE
Publisher:	SWE-AWE
Publication Date:	2005
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Public High School Graduation and College-Readiness Rates: 1991-2002. Education Working Paper No. 8

Resource Title:	Public High School Graduation and College-Readiness Rates: 1991-2002. Education Working Paper No. 8
Description/Annotation:	This 36-page paper reports on a nationwide study of high school graduation rates and consequent college eligibility of graduates, which is not guaranteed because some high school graduation standards are lower than college entrance requirements. Data are analyzed by state, by race/ethnicity, and by state and race/ethnicity.
Author Last Name:	Greene
Author First Name:	Jay P.

Additional Author: Winters
:
Publisher: Manhattan Institute for Policy Research, Center for Civic Innovation
Publisher Location: New York
Publication Date: 2005
Page Numbers: 36
Source: CCI
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Publication Success in Nature and Science is not Gender Dependent

Resource Title: Publication Success in Nature and Science is not Gender Dependent

Description/Annotation: Analysis of publications of life science researchers in 2 major journals between 1999-2004 to determine if any gender bias was evident in publication success between male and female scientists. No gender bias in selection found but few men produced multiple publications in period when no women produced publications.

Author Last Name: Braisher
Author First Name: Tamsin L.
Additional Author: Symonds
:
Additional Author: Gemmell
:
Publication Date: 2005
Page Numbers: 858-859
Publication Title: BioEssays
Volume: 27

Issue: 8
Source: Wiley
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

Putting Policy into Practice to Diversify Faculty: Search-Recruitment-Hiring in Engineering

Resource Title: Putting Policy into Practice to Diversify Faculty: Search-Recruitment-Hiring in Engineering

Description/Annotation: Introducing change into an organization takes a number of steps and time. This guide draws on the experience of others in creating a more equitable environment for women and minorities in engineering. This short roadmap links steps along the path to rich resources. The context is higher education, especially in engineering, science, and beyond.

Author Last Name: Sevo
Author First Name: Ruta
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2010
Page Numbers: 15
Source: WEPAN

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

Quantification of Diversity in Engineering Higher Education in the United States

Resource Title: Quantification of Diversity in Engineering Higher Education in the United States

Description/Annotation: This paper draws on government-compiled statistics on population and earned bachelor's degrees to explore the

representation of women and minorities among college graduates in engineering. The data show that the issues of gender diversity and racial diversity in engineering education are fundamentally different. This paper suggests that the problem of gender diversity is more likely to be amenable to targeted efforts on the part of engineering departments and schools than is the problem of racial diversity.

Author Last Name: Su
Author First Name: Lester K.
Publication Date: 2010
Page Numbers: 161-175
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational](#)
[Factors](#) » [Retention](#)

Quebrando Fronteras: Trends among Latino and Latina Undergraduate Engineers

Resource Title: Quebrando Fronteras: Trends among Latino and Latina Undergraduate Engineers

Description/Annotation: Engineering, a field that has shaped the world's industrial and technological base, is ripe for an influx of Latino undergraduate students. Given U.S. Latino population increases, what is the trajectory of Latino participation in engineering education? Using an interdisciplinary lens, this articles critically examines Latino trends in undergraduate engineering education in the United States. Results indicate that Hispanic-Serving Institutions (HSIs) are particularly successful at graduating Latino engineers and propose explanatory analyses. Funded by NSF GSE under awards #0734062 & #0734085.

Author Last Name: Camacho

Author First Name: Michelle Madsen
Additional Author: Lord
:
Susan M.
Publication Date: 2011, Apr
Page Numbers: 134-146
Publication Title: Journal of Hispanic Higher Education
Volume: 10
Source: Sage
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM](#)
[Career Interest/Awareness](#)

Race and gender in the labor market

Resource Title: Race and gender in the labor market
Description/Annotation: Comprehensive summary of economic research that explores the roles of race and gender in the labor market. Authors review phenomena including occupational exclusion, wage gaps and discrimination and relates practices to policy. Useful for Faculty and Career professionals.
Author Last Name: Altonji
Author First Name: Joseph G.
Additional Author: Blank
:
Rebecca M.
Publication Date: 1999, Jul
Page Numbers: 3143-3259
Publication Title: Handbook of Labor Economics
Source: RePEc
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Race, Ethnicity, and Culture in Mentoring Relationships

Resource Title:	Race, Ethnicity, and Culture in Mentoring Relationships
Description/Annotation:	Book chapter discusses impact of factors of race, ethnicity and culture on youth mentoring relationships. Also includes community and school-based programs that incorporate race, ethnicity and culture.
Author Last Name:	Sanchez
Author First Name:	Bernadette
Additional Author:	Colon
:	Yari
Publisher:	SAGE
Publication Date:	2005
Page Numbers:	191-204
Publication Title:	Handbook of Youth Mentoring
Source:	Google Book
Source Type:	Partial text, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Cultural Influences](#) » [Stereotype Threat](#)

Race, gender and first generation status in Computing Science, Engineering and Math persistence

Resource Title:	Race, gender and first generation status in Computing Science, Engineering and Math persistence
Description/Annotation:	This paper discusses the NSF sponsored Scientific Leadership Scholars (SLS) program at Humboldt State University (HSU) which provides scholarships to a diverse cohort of students in

Computing Science, Environmental Resources Engineering or Mathematics. The program targeted financially eligible Native American and first generation students. The SLS group persisting into year three remained more diverse than earlier corresponding major cohorts: 22 (59%) were either women and/or underrepresented minority (URM) students in STEM.

Author Last Name: Virnoche
Author First Name: M.
Additional Author: Eschenbach
:
Publication Date: 2010
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Race, Gender, and Measures of Success in Engineering Education

Resource Title: Race, Gender, and Measures of Success in Engineering Education

Description/Annotation: This study compares the eight-semester persistence and six-year graduation rates for various race-gender populations using a longitudinal, comprehensive dataset of more than 75,000 students matriculating in engineering at nine universities from 1988–1998. Results indicated that gender differences in persistence of Asian, Black, Hispanic, Native American, and White students are far outweighed by institutional differences. Racial differences are more pronounced, however, revealing some patterns that transcend institutional differences. Funded by NSF GSE under award #0734085 & #0734062.

Author Last Name: Ohland
Author First Name: Matthew W.
Additional Author: Brawner
:
Additional Author: Camacho

: Michelle M.
Additional Author: Layton
: Richard A.
Additional Author: Long
: Russell A.
Publication Date: 2011, Apr
Page Numbers: 225-252
Publication Title: Journal of Engineering Education
Volume: 100
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by](#)
[Funder](#) [Educational Factors](#) » [Retention](#)

Race, Gender, Test Length, and Missing Data: Why Estimates of Performance May Be Clouded

Resource Title: Race, Gender, Test Length, and Missing Data: Why Estimates of Performance May Be Clouded

Description/Annotation: In this 9-page document, the authors discuss a study conducted to measure the effects of missing or incomplete questions on test performance. According to the study, gender and race affect the tendency of students to leave test questions incomplete, thus affecting achievement measurement accuracy of groups of students.

Author Last Name: Boone
Author First Name: William J.
Additional Author: Rogg
: Steve
Additional Author: Butlet Kahle

: Jane
Additional Author: Damnjanovic
: Arta
Publisher: Paper presented at the Annual Meeting of the National Association for Research in Science Teaching
Publisher Location: Chicago, IL
Publication Date: 1997
Page Numbers: 9
Source: ERIC
Source Type: Full Text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Race, Rigor, and Selectivity in U.S. Engineering: The History of an Occupational Color Line

Resource Title: Race, Rigor, and Selectivity in U.S. Engineering: The History of an Occupational Color Line

Description/Annotation: Focusing on engineering programs in three settings—in Maryland, Illinois, and Texas, from the 1940s through the 1990s—Amy E. Slaton examines efforts to expand black opportunities in engineering as well as obstacles to those reforms. Her study reveals aspects of admissions criteria and curricular emphases that work against proportionate black involvement in many engineering programs. Slaton exposes the negative impact of conservative ideologies in engineering, and of specific institutional processes—ideas and practices that are as limiting for the field of engineering as they are for the goal of greater racial parity in the profession.

Author Last Name: Slaton
Author First Name: Amy E.
Publisher: Harvard University Press
Publication Date: 2010, Feb
Page Numbers: 298

Source: Amazon
Source Type: Available for Sale

Resource Type Categories: Book Topical Categories: Educational Factors » Admissions Bias Educational Factors » Curriculum Educational Factors

Race, Sex, and Job Satisfaction in Science Occupations: A Focus on Asian-Americans

Resource Title: Race, Sex, and Job Satisfaction in Science Occupations: A Focus on Asian-Americans

Description/Annotation: This research uses data from the 2003 National Survey of College Graduates to examine the effect of race and sex on job satisfaction among scientists with a special focus on Asian-Americans. Three aspects of job satisfaction are considered, namely, general, intrinsic, and extrinsic. Findings show that Asian-American scientists express lower job satisfaction than white scientists, and this pattern holds within groups of male and female scientists as well as in multivariate models. With regard to sex effects, findings show that female scientists score higher than male scientists on overall satisfaction and intrinsic satisfaction, and sex differences are more minimal among Asian-American scientists than among white scientists.

Author Last Name: Hanson

Author First Name: Sandra L.

Additional Author: Fang

: Fang

Publication Date: 2009

Page Numbers: 357-377

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Racial and Ethnic Differences in Students' Selection of a Doctoral Program to Attend From Those Offering Admission: The Case of Biomedical Sciences

Resource Title: Racial and Ethnic Differences in Students' Selection of a Doctoral Program to Attend From Those Offering Admission: The Case of Biomedical Sciences

Description/Annotation: In order to better understand how students select the school they will attend from those offering admission, this study explores the experience of two cohorts of applicants to a doctoral program in the biomedical sciences at Stanford University. Based on interviews with 59 students, researchers conclude that students use different criteria in deciding the schools to which they will apply than they do in selecting the school they will attend from those offering admission. While authors found striking consistency across racial and ethnic groups in the criteria used in selecting schools for application, they found clear differences in the factors affecting the choice of school to attend. Especially for Latino and African American students, the perceived quality of the interpersonal environment and a sense of inclusion were key determinants in selecting the school to attend. In this regard, Latino students found the environment at Stanford more welcoming than African American students did.

Author Last Name: Bar

Author First Name: Donald A.

Additional Author: Wanat

: Stan

Additional Author: Gonzalez

: Mariaelena

Publication Date: 2007

Page Numbers: 20

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 1
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Racially Diverse Women's and Men's Adjustment to STEM Majors: Implications for Recruitment and Retention

Resource Title: Racially Diverse Women's and Men's Adjustment to STEM Majors: Implications for Recruitment and Retention

Description/Annotation: This study of 245 racially diverse engineering students extends prior social cognitive career theory research by examining social-contextual and personal factors that promote successful adjustment. Participants reported experiencing several types of academic, social, and financial hurdles during their first semester. They also described factors that facilitated their academic progress and additional elements that, if available, could have further assisted their adjustment. Implications for research, recruitment, and retention will be discussed.

Author Last Name: Miller

Author First Name: Matthew J.

Additional Author: Lent

: Robert

Additional Author: Smith

: Paige E.

Additional Author: Watford

: Bevlee A.

Additional Author: Wilkins

: Gregory M.

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Raising and Educating Healthy Boys: A Report on the Growing Crisis in Boys' Education

Resource Title: Raising and Educating Healthy Boys: A Report on the Growing Crisis in Boys' Education

Description/Annotation: This 28-page article discusses increasing challenges to the healthy education of boys in the US. The report details topics in the education of boys that include: gender differences in literacy, the "problem" image of boys in the educational system, rates of expulsion of boys, and the effects of educational policy on teaching and school culture.

Author Last Name: Froschl
Author First Name: Merle
Additional Author: Sprung
: Barbara

Publisher: Academy for Educational Development
Publisher Location: Washington, DC
Publication Date: 2005
Page Numbers: 28
Source: ERIC
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Raising critical issues in the analysis of gender and science in children's literature

Resource Title:	Raising critical issues in the analysis of gender and science in children's literature
Description/Annotation:	This forum explores issues related to the (a) representation and construction of gender, science, and childhood in literature for children; (b) the need to consider socio/historical/cultural contexts in analytical and theoretical frameworks; and (c) the importance of fostering critical literacy perspectives in pre- and in-service science teachers and the children whom they teach.
Author Last Name:	Martin
Author First Name:	Sonya N.
Additional Author:	Siry
:	Christina M.
Publication Date:	2009, Sep
Page Numbers:	951-960
Publication Title:	Cultural Studies of Science Education
Volume:	4
Issue:	4
Source:	Springer Link
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Media & Entertainment](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Raising Public Awareness of Engineering

Resource Title:	Raising Public Awareness of Engineering
Description/Annotation:	This 108-page report from the National Academy of Engineering (NAE) provides the results of an NAE-commissioned survey of activities intended to raise public awareness of engineering as the source of technology. The report explains why the survey was needed, and recommends how the engineering community can

work successfully to communicate the importance of engineering to society. The full report is available in PDF format.

Author Last Name: Davis
Author First Name: Lance A. (ed.)
Additional Author: Gibbin
:
Robin D. (ed.)
Publisher: The National Academies Press
Publisher Location: Washington, DC
Publication Date: 2002
Page Numbers: 1-108
Source Type: Abstract/Full Text/Available for Sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Re-inscribing Gender Binaries: Deconstructing the Dominant Discourse around Women's Equality in Science, Engineering, and Technology

Resource Title: Re-inscribing Gender Binaries: Deconstructing the Dominant Discourse around Women's Equality in Science, Engineering, and Technology

Description/Annotation: This paper attempts to disprove a predominant theory of low female enrollment and participation in STEM: the idea that the gender stereotyping and the masculine image of STEM disciplines and workplaces prevents females from choosing STEM careers and courses of study. The justification is that this argument is counter-productive as it undermines girls and women in these fields.

Author Last Name: Phipps
Author First Name: Alison
Publication Date: 2007, Nov
Page Numbers: 768-787
Publication Title: Sociological Review

Volume: 55
Issue: 4
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness Cultural Influences](#) » [Stereotype Threat](#)

Reaching All Students: A Resource for Teaching in Science, Technology, Engineering & Mathematics

Resource Title: Reaching All Students: A Resource for Teaching in Science, Technology, Engineering & Mathematics

Description/Annotation: This online resource book compiles published work, as well as resources from the Center for the Integration of Research, Teaching, and Learning at the University of Wisconsin-Madison, to provide STEM instructors with a variety of tools for making the classroom more welcoming for diverse student groups. This searchable faculty reference manual weaves diversity throughout the course, contains a wealth of information on the topics of teaching methods and teaching-as-research, as well as a list of additional resources and websites focused on diversity in STEM education.

Author Last Name: Sellers

Author First Name: Sherrill

Additional Author: Roberts
: Jean

Additional Author: Giovanetto
: Levi

Additional Author: Friedrich
: Katherine

Additional Author: Hammargren
: Caroline

Publisher: Center for the Integration of Research, Teaching, and Learning

Publisher Location: Madison, WI
Publication Date: 2007
Page Numbers: 1 - 229
Issue: 2
Source: CIRTL
Source Type: Full text

Resource Type Categories: [Guide/Handbook Database/Tool](#) » [Teaching Tools Topical](#)
Categories: [Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Faculty Student Interaction](#)

Reaching Engineering and Architecture Career Heights: A Pre-College Program To Interest Young Women in Engineering, Architecture and Technology

Resource Title: Reaching Engineering and Architecture Career Heights: A Pre-College Program To Interest Young Women in Engineering, Architecture and Technology

Description/Annotation: This paper discusses three summer academies held at Oklahoma State University to introduce young women to the possibilities available to them within the professional fields of engineering, architecture and technology. There is a need to encourage more young people to consider careers in these fields. Specifically, an increase in women choosing careers in these fields could help curb the predicted shortfall in the professional workplace.

Author Last Name: DeYong
Author First Name: Camille F.
Additional Author: Bilbeisi
: Suzanne D.
Publication Date: 1999
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Real Life Examples in Dynamics- Lesson plans and solutions

Resource Title:	Real Life Examples in Dynamics- Lesson plans and solutions
Description/Annotation:	Written for instructors of a junior-level mechanical engineering dynamics course, this booklet presents supplemental lesson plans that appeal to students of diverse backgrounds. Using the 5Es - Engage, Explore, Explain, Elaborate & Evaluate -the editor promotes hands-on examination of course principles using items familiar to students such as paper airplanes, tennis balls, yoyos, marbles, robots, hockey pucks, and sling shots.
Author Last Name:	Patterson (ed.)
Author First Name:	Eann A.
Publisher:	Michigan State University
Publication Date:	2009
Page Numbers:	1-54
Source:	Engineering Examples
Source Type:	Available for sale

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Real Life Examples in Mechanics of Solids - Lesson plans and solutions

Resource Title:	Real Life Examples in Mechanics of Solids - Lesson plans and solutions
Description/Annotation:	Written for instructors of a sophomore-level mechanical engineering mechanics course, this booklet presents supplemental lesson plans that appeal to students of diverse backgrounds. Using

the 5Es - Engage, Explore, Explain, Elaborate & Evaluate - the editor promotes hands-on examination of course principles using everyday items relevant to students such as an iPod, skateboard, basketball goal, bicycle pump, and sausages.

Author Last Name: Patterson (ed.)
Author First Name: Eann A.
Publisher: Michigan State University
Publication Date: 2006
Source: Engineering Examples
Source Type: Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) »
[Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Reasonable Expectations: Understanding the Limited Power of Title IX to Transform STEM Educational Programs

Resource Title: Reasonable Expectations: Understanding the Limited Power of Title IX to Transform STEM Educational Programs

Description/Annotation: Paper looks at Title IX in the academic context, differentiates it from Title IX in the athletic context and explores how successes in one area do not necessarily portend similar successes in the other. It also examines compliance-monitoring efforts and provides advice to educational institutions seeking to use Title IX to improve educational programs and activities with an eye toward making them more hospitable to female students and faculty.

Author Last Name: Pieronek
Author First Name: Catherine
Publisher: ASEE
Publisher Location: Chicago, IL
Publication Date: 2006, Jun
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Legal Considerations](#)

Recommendations for Building Diversity in Engineering Education

Resource Title: Recommendations for Building Diversity in Engineering Education

Description/Annotation: The Research Institute for STEM Education (RISE) at the University of Oklahoma synthesized and summarized their findings based on data collected through two large (over 200 interviews each) mixed-methods studies of engineering undergraduate students. This resultant document contains 30 recommendations to academic decision makers pertaining to nine domains where Positive Culture can be enacted to improve the educational experiences of under-represented and under-served students.

Author Last Name: Walden

Author First Name: Susan

Additional Author: Foor

: Cynthia (Cindy)

Additional Author: Shehab

: Randa

Additional Author: Trytten

: Deborah

Publisher: University of Oklahoma

Publisher Location: Norman, OK

Publication Date: 2010

Page Numbers: 1-10

Publication Title: Recommendations for Building Diversity in Engineering Education

Source: University of Oklahoma

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Reconfiguring the Firewall: Recruiting Women to Information Technology across Cultures and Continents

Resource Title: Reconfiguring the Firewall: Recruiting Women to Information Technology across Cultures and Continents

Description/Annotation: This 288-page book contains 16 chapters by various authors tracing the participation of women in information technology from the secondary level through the workforce. Numerous studies are presented, as are suggestions for programs to increase women's participation. This text is designed for college faculty and advisors who would administer such programs.

Author Last Name: Burger (ed.)

Author First Name: Carol

Additional Author: Creamer (ed.)

: Elizabeth

Additional Author: Meszaros (ed.)

: Peggy

Publisher: A K Peters, LTD

Publisher Location: Wellesley, MA

Publication Date: 2007

Page Numbers: 1-288

Source: CRC Publishers

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Reconfiguring the Firewall: Recruiting Women to IT Across Continents and Cultures

Resource Title: Reconfiguring the Firewall: Recruiting Women to IT Across Continents and Cultures

Description/Annotation: This book uncovers the factors that influence women's interest in and choice of IT as a career field, and how this varies across

cultures and regions. The results of the studies are both illuminating and prescriptive for designing and implementing successful programs that cross the secondary, post-secondary, and professional settings, and for establishing an agenda of critical areas for future research about women and information technology. This examination of women's interest in IT in a cross-cultural context contains practical suggestions to promote the recruitment and retention of women in IT, spanning early education to careers, ideal for: college faculty, and advisors who implement activities and programs designed to promote the success of women in science and engineering, and those who fund these programs; academic researchers and K-12 educators; and IT industry professionals committed to a diverse workforce.

Author Last Name: Burger
Author First Name: Carol J.
Additional Author: Creamer
: Elizabeth G.
Additional Author: Meszaros
: Peggy S.
Publisher: AK Peters Publishing
Publisher Location: Wellesley, MA
Publication Date: 2007
Source: CRC Publishers
Source Type: Summary, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Recruiting and Retaining Engineering Female Faculty at Utah State University

Resource Title: Recruiting and Retaining Engineering Female Faculty at Utah State University

Description/Annotation: This paper addresses ADVANCE at Utah State University (USU), a five-year institutional transformation project funded by the National Science Foundation to increase the participation and advancement of women faculty in the sciences and engineering. A multi-disciplinary team of faculty members from the Colleges of Business; Engineering; Humanities, Arts, and Social Sciences; Natural Resources and Science work on the project. The project addresses problems that impact the effectiveness and satisfaction of all faculty members, but weighs more heavily on women and underrepresented minorities. This research strives to identify the bottlenecks to advancement, initiate change procedures and track outcomes. ADVANCE efforts focus on three main areas: Departmental Climate, Policies and Procedures and Faculty Recruitment. Funded by NSF ADVANCE under award #0244922.

Author Last Name: Feng

Author First Name: Mary

Additional Author: Hailey

: Christine

Additional Author: Dupont

: R. Ryan

Additional Author: Sullivan

: Kim

Publication Date: 2005

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

Recruiting and Retaining Women Graduate Students in Computer Science and Engineering: Results of a Workshop Organized by the Computing Research Association

Resource Title: Recruiting and Retaining Women Graduate Students in Computer Science and Engineering: Results of a Workshop Organized by the Computing Research Association

Description/Annotation: This 28-page CRA report summarizes and expands on the results of a 2006 workshop held to discuss the findings and implications for increasing women's participation in graduate computing programs. The resource outlines 26 research-based practices likely to promote gender balance in graduate computing programs. The practices are divided into three sections—recruiting, admitting, and retaining—with recommendations and a summary of supporting evidence for each.

Author Last Name: Cuny

Author First Name: Janice

Additional Author: Aspray

: William

Publisher: Computing Research Association

Publisher Location: Washington, DC

Publication Date: 2006

Source: CRA

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Recruiting Female Faculty Members in Science and Engineering: Preliminary Evaluation of One Intervention Model

Resource Title: Recruiting Female Faculty Members in Science and Engineering: Preliminary Evaluation of One Intervention Model

Description/Annotation: This article describes and evaluates early results of one intervention at the University of Michigan: the creation of a faculty committee designed to improve the recruitment and hiring of female faculty members through peer education. One hiring cycle after the committee's creation, the authors found (a) reports of changed practices in some search committees and departments,

(b) an increase in the number and proportion of new hires who were women, and (c) a substantial increase in the knowledge and motivation of the members of the recruitment committee with respect to improving the climate for female faculty members.

Author Last Name: Stewart
Author First Name: Abigail J.
Additional Author: La Vaque-Manty
:
Danielle
Additional Author: Malley
:
Janet E.
Publication Date: 2004
Page Numbers: 361-375
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

Recruiting More Women into Engineering and Science

Resource Title: Recruiting More Women into Engineering and Science
Description/Annotation: Paper discussing ways to produce more women engineering students, which will produce more women faculty members.
Author Last Name: Ivey
Author First Name: Elizabeth S.
Publisher: American Society for Engineering Education
Publisher Location: Washington, D.C.
Publication Date: 1988
Page Numbers: 762-765

Publication Title: Journal Engineering Education
Volume: 78
Issue: 8
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Recruiting Women Technoblog

Resource Title: Recruiting Women Technoblog

Description/Annotation: The Recruiting Women Technoblog, powered by the Institute for Women in Trades, Technology, and Science (IWITTS), provides a casual and interactive venue to present and discuss recruitment and retention strategies for women and girls in technology.

Web site Link: [Link to Resource](#)

More: The author of the Recruiting Women Technoblog is Donna Milgram, founder and Executive Director of IWITTS, a national nonprofit organization dedicated to helping educators close the gender gap for women in trades, technology and science.

Resources: The Technoblog groups posts by:

- Category
- Recent Posts
- Top Commentators
- Archives
- Popular Posts

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Technoblog is part of the CalWomenTech Project, funded by The Program for Research on Gender in Science and Engineering from The National Science Foundation (NSF).

Last Update Date: June 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Retention](#)

Recruitment and retention of females in the STEM disciplines: The annual Girl Scout Day Camp at Baylor University

Resource Title: Recruitment and retention of females in the STEM disciplines: The annual Girl Scout Day Camp at Baylor University

Description/Annotation: This paper reviews the current research on the retention of females, especially in the elementary ages, in the STEM areas. The paper also documents the design and development of the annual girl scout day camp, including the multi-year rotation of badges and activities offered; as well as the feedback from the local and area girl scout councils, troop leaders, and parents. In future years author hope to be able to determine whether involvement in this type of activity has any significant effect on the recruitment of females as they approach high school and college, or the retention of current females in engineering and computer science.

Author Last Name: Fry

Author First Name: C.C.

Additional Author: Davis

: J.

Additional Author: Shirazi-Fard

: Y.

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Recruitment and Retention of Women in Computer Science & Engineering

Resource Title: Recruitment and Retention of Women in Computer Science & Engineering

Description/Annotation: This paper presents the study of different approaches that are used by various colleges and universities for recruiting and retaining women in computing. This paper also addresses the low enrollment in a computer science department and the reason that female enrollment at Utah Valley University is lower than the national average.

Author Last Name: Minaie

Author First Name: Afsaneh

Additional Author: Love

: Kirk

Additional Author: Sanati-Mehrizy

: Paymon

Additional Author: Sanati-Mehrizy

: Reza

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Recruitment and Retention of Women in the Computing Sciences: Tackling the Underlying Programs

Resource Title: Recruitment and Retention of Women in the Computing Sciences: Tackling the Underlying Programs

Description/Annotation: This paper explores the issues surrounding recruitment and retention of women in computer science and software engineering. It examines why so few women enter computing sciences, why so many women leave computing sciences, and

what can be done to improve the situation? This paper explores the social barriers and stereotypes that bias girls and women from entering the computing sciences as well as biases in the educational system that contribute to the problem.

Author Last Name: Duggins
Author First Name: Sheryl
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Recruitment in Engineering and Technology Programs Integrating Home Schoolers, Women and International Students

Resource Title: Recruitment in Engineering and Technology Programs Integrating Home Schoolers, Women and International Students

Description/Annotation: The author presents the nationwide trend in recruiting K-12 homeschooled and international students to universities and colleges including the Northwestern State University at Natchitoches, Louisiana. Since science, math and engineering education for domestic students has been declining and the demand for engineers and technologists outnumbers the supply, the author explores the potential of international students from certain regions of the world which has decreased very much in the past few years. In the long run, they can contribute their knowledge to this country with training and working visas. The goal of this study is to motivate and lure interested students to enroll in engineering and technology majors in order to avoid technical labor shortage crisis that the nation demands and deserves.

Author Last Name: Islam
Author First Name: Rafiqul
Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Recruitment of Women and Minorities into Engineering Technology Programs

Resource Title: Recruitment of Women and Minorities into Engineering Technology Programs

Description/Annotation: The paper describes an experimental summer program “Access To Careers In Engineering” (ACE). The program was a recruitment strategy which targeted under-represented groups and sought to motivate them toward careers in engineering and engineering related fields. This program provided exposure to careers in engineering, engineering technology, and mathematics to 10th and 11th grade female and minority students.

Author Last Name: Ghorieshi

Author First Name: Maryann

Additional Author: Grebski

: Wieslaw

Additional Author: Guers

: Marlene

Publication Date: 1996

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Reducing Stereotype Threat

Resource Title: Reducing Stereotype Threat

Description/Annotation: This website offers summaries of research on stereotype threat and discusses unresolved issues and controversies in the research literature. Included are some research-based suggestions for reducing the negative consequences of stereotyping, particularly in academic settings.

Web site Link: [Link to Resource](#)

More: Site was created by social psychologists, Steven Stroessner and Catherine Good as a resource for faculty, teachers, students, and the general public interested in stereotype threat.

Resources:

Cohesive presentation of topical material with integrated citations and annotations.

Extensive bibliography also available.

Site Access Details: This site is publicly accessible.

Partners and Funding: Funding from Consortium of High Achievement and Success (CHAS) and Barnard College.

Contact Name: Steve Stroessner

Contact E-mail: sstroess@barnard.edu

Last Update Date: May 16, 2013

Resource Type Categories: [Website/Portal](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Reducing the Backlash Effect: Self-monitoring and Women's Promotions

Resource Title: Reducing the Backlash Effect: Self-monitoring and Women's Promotions

Description/Annotation: This early view, online article suggests that, although women generally fail to achieve the high-level statuses of men due in part to the backlash effect where women are sanctioned for violating gender role stereotypes, women who have or choose to portray masculine qualities in their career pursuits can benefit from self-monitoring. Indeed, this study suggests that women who have masculine qualities and self-monitor receive more promotions than women who have masculine qualities and self-monitor less, indicating that women who are able to choose when and how to manifest masculine qualities receive more promotions.

Author Last Name: O'Neill
Author First Name: Olivia A.
Additional Author: O'Reilly
: Charles A.
Publisher: British Psychological Society
Publication Date: 2011, Jan 11
Page Numbers: 8
Publication Title: Journal of Occupational and Organizational Psychology
Volume: N/A
Issue: N/A
Database Name: Wiley Online Library
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Salary](#)

Reducing the Bottleneck....Breaking the Bottle! Addressing the Recruitment of Postdocs through Best Practices of AGEP and ADVANCE Horizons Programs

Resource Title: Reducing the Bottleneck....Breaking the Bottle! Addressing the Recruitment of Postdocs through Best Practices of AGEP and ADVANCE Horizons Programs
Description/Annotation: In this 12-page paper from the 2012 WEPAN National Conference, the University of Maryland Baltimore County

(UMBC) shares best practices from its Alliances for Graduate Education and the Professoriate (AGEP) Graduate Horizons and ADVANCE Faculty Horizons programs. The conference paper offers insights on breaking through bottlenecks that have traditionally limited appointments of underrepresented (URM) STEM postdoctoral fellows. The full paper is available in PDF format.

Author Last Name: Reed
Author First Name: Autumn M.
Additional Author: Tull
: Renetta G.
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-12
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Reducing the Effects of Stereotype Threat on African American College Students by Shaping Theories of Intelligence

Resource Title: Reducing the Effects of Stereotype Threat on African American College Students by Shaping Theories of Intelligence

Description/Annotation: Report of a race and gender mixed group of undergraduates who participated in an intervention to change internalized negative stereotypes that influence their performance in school.

Author Last Name: Aronson
Author First Name: Joshua
Additional Author: Fried
: Carrie B.
Additional Author: Good

: Catherine
Publisher: Elsevier Inc.
Publication Date: 2002
Page Numbers: 113-125
Publication Title: Journal of Experimental Social Psychology
Volume: 38
Source: ScienceDirect
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Stereotype Threat](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Reforming science education to include girls

Resource Title: Reforming science education to include girls
Description/Annotation: This paper argues that any reform that attempts to increase science literacy must deal with a disturbing truth: Women do not do science. The author discusses recent studies showing us that even among the most academically prepared in science and math, males choose math and science majors and careers in much larger numbers than do females.
Author Last Name: Shakeshaft
Author First Name: Charol
Publication Date: 1995
Page Numbers: 74-79
Publication Title: Theory Into Practice
Volume: 34
Issue: 1
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Retention](#)

Relationships Between Career Aspirations and Measures of Motivation Toward Biology and Physics, and the Influence of Gender

Resource Title: Relationships Between Career Aspirations and Measures of Motivation Toward Biology and Physics, and the Influence of Gender

Description/Annotation: This survey conducted with student volunteers enrolled in secondary school science-math academic stream in Thailand investigated the relationship between measures of motivation and aspirations for high earning science and math related careers. Results of multiple discriminant analyses showed gender differences in the motivational factors that influence career aspirations. The findings highlight the significance of cultural beliefs about gender in decision making for careers.

Author Last Name: Koul

Author First Name: Ravinder

Additional Author: Lerdpornkulrat

: Thanita

Additional Author: Chantara

: Soontornpathai

Publisher: Springer

Publication Date: 2011, Dec

Page Numbers: 761-770

Publication Title: Journal of Science Education and Technology

Volume: 20

Issue: 6

Source: SpringerLink

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Reliability and Validity of FE Exam Scores for Assessment of Individual Competence, Program Accreditation, and College Performance

Resource Title:	Reliability and Validity of FE Exam Scores for Assessment of Individual Competence, Program Accreditation, and College Performance
Description/Annotation:	This study explores whether fundamentals of engineering (FE) exam scores are reliable and valid measures of individual competence, program accreditation, and college performance, each of these being processes commonly assessed using FE scores.
Author Last Name:	Profl
Author First Name:	J.
Publisher:	ASCE Publications
Publisher Location:	Reston, VA
Publication Date:	2007, Oct
Page Numbers:	320-326
Publication Title:	Issues in Engineering Education and Practice
Volume:	133
Issue:	4
Source:	ASCE
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Religion and Rationality: Quaker Women and Science Education 1790–1850

Resource Title:	Religion and Rationality: Quaker Women and Science Education 1790–1850
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Description/Annotation: This article examines the work of two Quaker women, Priscilla Wakefield (1750–1832) and Maria Hack (1777–1844) as popularizers of science and in the context of the development of scientific literacy. Both women were writers who specialized in scientific educational texts for children and young adults. As Quakers their community and culture played a significant part in their understanding of, and approach to, the study of science. Hence this article will consider how and why Quakers encouraged scientific education for their children.

Author Last Name: Leach
Author First Name: Camilla
Publication Date: 2006
Page Numbers: 69-90
Publication Title: History of Education: Journal of the History of Education
Volume: 35
Issue: 1
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Remarks by the President at the National Academy of Sciences Annual Meeting

Resource Title: Remarks by the President at the National Academy of Sciences Annual Meeting

Description/Annotation: Text of speech by President Obama at the National Academy of Sciences asserting U.S. commitment to scientific research and innovation through increased federal funding. Pres. Obama announced increased funding for key agencies such as the NSF, NIST and the DOE Office of Science, new organizational initiatives such as ARP-A, Advanced Research Projects Agency for Energy and increased funding for education in science and math.

Author Last Name: Obama

Author First Name: Barack
Publisher: Academy of Sciences
Publisher Location: Washington, D.C.
Publication Date: 2009, Apr 27
Source: The White House
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#)[Diversity Orgs & Pgms for Women and Girls](#) »
[Government](#)

Removing Barriers: Women in Academic Science, Technology, Engineering, and Mathematics

Resource Title: Removing Barriers: Women in Academic Science, Technology, Engineering, and Mathematics

Description/Annotation: This 347-page book examines the barriers that face women in academic careers and recommends a set of "best practices" to minimize these barriers. The first two chapters discuss the history of women in STEM fields. The next six chapters address institutional and cultural barriers, followed by three chapters on the feminist study of scientific practice. Finally, the last six chapters address remedies and change.

Author Last Name: Bystydzienski (ed.)
Author First Name: Jill
Additional Author: Bird (ed.)
:
Sharon
Publisher: Indiana University Press
Publisher Location: Bloomington, IN
Publication Date: 2006, Feb 28
Page Numbers: 1-347
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Report from the Task Force on Women in Science and Engineering

Resource Title:	Report from the Task Force on Women in Science and Engineering
Description/Annotation:	This paper details general recommendations from the Task Force on Women Faculty at Harvard, tasked to make recommendations toward a truly diverse faculty at the institution. Eighteen general recommendations are described.
Author Last Name:	Harvard
Publisher:	Harvard University
Publisher Location:	Cambridge, MA
Publication Date:	2005, May
Page Numbers:	1-65
Source:	Stanford University
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Report from the Trenches: Implementing Curriculum to Promote the Participation of Women in Computer Science

Resource Title:	Report from the Trenches: Implementing Curriculum to Promote the Participation of Women in Computer Science
Description/Annotation:	This paper discusses Technology for Community, an undergraduate computer science course taught at the University of Colorado at Boulder, in which students work with local community service agencies building computational solutions to problems confronting those agencies. Although few Computer

Science majors are female, this course has consistently attracted a very large proportion of female students. Technology for Community enrollment patterns and course curriculum are compared with other computer science courses over a 3-year period. All courses that satisfy public markers of design-based learning are seen to have higher than average female enrollment. Of all the courses marked as including design-based learning, however, the Technology for Community course is drawing the most significant numbers of women from outside of the College of Engineering and Applied Science. Authors attribute that success to the inclusion in the course of curriculum reflecting design-based learning and recruiting partnerships with programs outside of the College of Engineering.

Author Last Name: Jessup
Author First Name: Elizabeth
Additional Author: Sumner
: Tamara
Additional Author: Barker
: Lecia
Publication Date: 2005
Page Numbers: 273-294
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Report of the Task Force on Women Faculty

Resource Title: Report of the Task Force on Women Faculty
Description/Annotation: Two task forces were created at Harvard- the Task Force on Women Faculty and the Task Force on Women in Science and Engineering. The task forces were charged with developing

proposals to reduce barriers to advancement of women faculty at Harvard in order to create a more diverse faculty. This 58 page report includes identification of issues and recommendations to begin addressing the challenges. For academics and institutions of higher education interested in increasing the diversity of faculty.

Author Last Name: Task Force on Women Faculty
Additional Author: Task Force on Women in Science and Engineering
Publisher: Harvard College
Publisher Location: Cambridge, MA
Publication Date: 2005, May
Page Numbers: 1-58
Source: Stanford University
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Report to the National Science Board on the National Science Foundation's Merit Review Process, Fiscal Year 2010

Resource Title: Report to the National Science Board on the National Science Foundation's Merit Review Process, Fiscal Year 2010

Description/Annotation: This annual report includes data on proposals and awards as well as descriptions of special activities that the National Science Foundation (NSF) has undertaken in support of the merit review process. Longitudinal data are given to provide a long-term perspective and additional historical data are available through the electronic version of the report. In FY 2010, NSF's total number of proposals received was an increase of about 23% from FY 2009, and an increase of over 74% from FY 2001. These annual reports to the National Science Board includes data on proposals and awards and other pertinent information, as well as descriptions of special activities that NSF has undertaken in support of the merit review process. The current funding rate is a significant decrease from the FY 2000 funding rate of 33 percent, but the current rate has been approximately unchanged over the last five years.

Author Last Name: National Science Foundation
Publisher: National Science Foundation
Publisher Location: Arlington, VA
Publication Date: 2011, May
Page Numbers: 1-60
Source: NSF
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Legal Considerations](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Reports for America's Competitiveness: Hispanic Participation in Technology Careers

Resource Title: Reports for America's Competitiveness: Hispanic Participation in Technology Careers

Description/Annotation: This is a collection of reports documenting the current state (2007-2008) of Hispanic/Latino involvement in the STEM disciplines, especially as it pertains to a critical shortage of Hispanics in the STEM disciplines. Papers document issues found in secondary school and with post secondary options for Latino students. The reports offer easy to read synopses of issues to consider, including close ties to family and the need for financial aid commonly found in the Hispanic community. Latinas are sometimes still subject to stereotypes, especially from family members to "get a husband" instead of pursuing a degree. Sound policy suggestions are given. This is an excellent resource for anyone interested in increasing Hispanic / Latino enrollment and involvement in STEM.

Author Last Name: IBM
Publisher: IBM
Publication Date: 2008, Sep
Source Type: Website, Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Research Experiences for Women Undergraduate Students in High-Speed Integrated Circuits

Resource Title: Research Experiences for Women Undergraduate Students in High-Speed Integrated Circuits

Description/Annotation: In this paper, the research projects carried out by the women undergraduate students selected for the NSF funded undergraduate summer research sites established at the department of Electrical Engineering at Michigan Technological University in the areas of design, modeling and simulation of GaAs-based very high-speed integrated circuits are outlined.

Author Last Name: Goel

Author First Name: Ashak

Additional Author: Sloan

: Martha

Additional Author: Bergstrom

: Sarah

Additional Author: Mojica-Campbell

: Aleli

Additional Author: Draeger

: Stephanie

Publication Date: 2000

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Research Methodology: Taming the Cyber Frontier—Techniques for improving online surveys

Resource Title: Research Methodology: Taming the Cyber Frontier– Techniques for improving online surveys

Description/Annotation: Discuss the implications of an online environment for traditional survey techniques, shares Web survey experiences from an ex post facto perspective, and presents recommendations for future online research, specifically in the areas of Web survey design, sampling, data collection and responses, and publicity.

Author Last Name: Johnson

Author First Name: Thomas J.

Publisher: SAGE Publications

Publication Date: 1999

Page Numbers: 323-337

Publication Title: Social Science Computer Review

Volume: 17

Issue: 3

Source: Sage

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work

Resource Title: Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work

Description/Annotation: This 26-page article reviews more than 200 sources concerning the distribution of housework between men and women. While men perform as much housework as they create, they still spend less than half as much time on housework as women. The seven pages of citations at the end of this article may be valuable to other researchers in this area.

Author Last Name: Coltrane

Author First Name: Scott
Publisher: National Council on Family Relations
Publication Date: 2000, Nov
Page Numbers: 1208-1233
Publication Title: Journal of Marriage and the Family
Volume: 62
Issue: 4
Source: JSTOR
Source Type: Partial text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Researchers the Gender: Looking at Ways to Bridge Gap in STEM Fields

Resource Title: Researchers the Gender: Looking at Ways to Bridge Gap in STEM Fields

Description/Annotation: This 2-page article discusses a possible factor that could allow women to circumvent pervasive stereotypes that affect success in STEM, termed "sense of belonging." Reporting on NSF-funded research being conducted by Catherine Good, Ph.D., this article indicates that factors such as perceptions of acceptance in the field or fitting in were critical to helping women in STEM combat stereotype threat. Good identifies three types of "belonging" that can combat stereotypes: achievement-based belonging; social-based belonging; and effort-based engagement.

Author Last Name: Campbell
Author First Name: Melissa
Publisher: Hispanic Outlook in Higher Education
Publisher Location: Paramus, NJ
Publication Date: 2011, Feb 21
Page Numbers: 26-27
Publication Title: Hispanic Outlook in Higher Education

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

Resisting Prejudice Every Day: Exploring Women's Assertive Responses to Anti-Black Racism, Anti-Semitism, Heterosexism, and Sexism

Resource Title: Resisting Prejudice Every Day: Exploring Women's Assertive Responses to Anti-Black Racism, Anti-Semitism, Heterosexism, and Sexism

Description/Annotation: Study exploring how gender roles prescribing women to be passive/accommodating contribute to women's responses when faced with prejudice.

Author Last Name: Hyers

Author First Name: Lauri L.

Publisher: Springer

Publisher Location: New York, NY

Publication Date: 2007, Jan

Page Numbers: 1-12

Publication Title: Sex Roles

Volume: 56

Issue: 1-2

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Cultural Influences](#) » [Stereotype Threat](#)

Resource Guide to Global Work and Family Issues

Resource Title: Resource Guide to Global Work and Family Issues

Description/Annotation: An 8 page directory of organizations involved in studying work-family issues. Includes contact information and a short description of each organization. For academics, industry, or anyone studying work-family issues.

Author Last Name: Pitt-Catsoupes

Author First Name: Marcie

Publisher: Boston College Center for Work and Family

Publisher Location: Chestnut Hill, MA

Page Numbers: 1-8

Source: University of Pennsylvania

Source Type: Full text

Resource Type Categories: [Database/Tool](#) » [Directory](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Retaining a Diverse Technical Pipeline During and After a Recession

Resource Title: Retaining a Diverse Technical Pipeline During and After a Recession

Description/Annotation: 24 page report proposes strategies for companies to increase the engagement and retention of technical women to better weather the economic downturn of 2007-2009, avoid a mass exodus when the recession ends and gain a competitive advantage when a full recovery occurs. Practices valuable to technical women (and men) include supporting multiple mentors and work-life practices such as telecommuting and flexible schedules that support both dual-career families and baby boomers.

Author Last Name: Simard

Author First Name: Caroline

Publisher: Anita Borg Institute for Women and Technology

Publisher Location: Palo Alto, CA

Publication Date: 2009

Page Numbers: 24

Source: ABI
Source Type: Full text

Resource Type Categories: Guide/Handbook Topical Categories: Career Factors Career Factors » Professional Development Career Factors » Retention

Retaining tomorrow's scientists: Exploring the factors that keep male and female college students interested in science careers

Resource Title: Retaining tomorrow's scientists: Exploring the factors that keep male and female college students interested in science careers

Description/Annotation: This 17-page article discusses the results of a study to determine factors that contribute to continued interest in careers in science among men and women. Looked at the differences between men and women in terms of career choices and the motivations for those choices.

Author Last Name: Sax

Author First Name: Linda J.

Publication Date: 1994

Page Numbers: 45-61

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 1

Issue: 1

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Retaining Undergraduate Women in Science, Mathematics, and Engineering

Resource Title: Retaining Undergraduate Women in Science, Mathematics, and Engineering

Description/Annotation: This project examined the effectiveness of a program in retaining women in science, mathematics, and engineering majors by providing them with a support and mentoring program. The study found that the program was successful when preparing the retention of women in the program to non-program students.

Author Last Name: Kahveci

Author First Name: Ajda

Additional Author: Southerland

: Sherry A.

Additional Author: Gilmer

: Penny J.

Publication Date: 2006, Nov

Page Numbers: 34-38

Publication Title: Journal of College Science Teaching

Volume: 36

Issue: 3

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Retention Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Retaining women in the US IT workforce: theorizing the influence of organizational factors

Resource Title: Retaining women in the US IT workforce: theorizing the influence of organizational factors

Description/Annotation: The challenge of meeting the demand for information technology (IT) workers is addressed by examining three important organizational factors that affect women's retention in the IT field. Much of the research on gender and IT assumes a unilateral effect: all organizational factors affect all women in the same ways. An alternative view that is explored in this research is that within-gender differences offer rich insights into the gender imbalance in the IT profession. The individual differences theory of gender and IT enabled researchers to examine variation in organizational influences on women through analysis of transcripts from in-depth interviews conducted with 92 women in the IT workforce in the U.S.A. The results show that three organizational factors – work–life balance, organizational climate, and mentoring – affected the women's career development in a range of ways. Findings show that both research and interventions directed at increasing the retention of women must be flexible enough to respond to the variation that exists among women and within IT workplaces. Funded by NSF GSE under award #0733747.

Author Last Name: Trauth

Author First Name: Eileen M.

Additional Author: Quesenberry

: Jeria L.

Additional Author: Huang

: Haiyan

Publication Date: 2009, Oct

Page Numbers: 476-497

Publication Title: European Journal of Information Systems

Volume: 18

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career](#)
[Factors](#) » [Organizational Culture](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

Retention and Performance of Male and Female Engineering Students: An Examination of Academic and Environmental Variables

Resource Title:	Retention and Performance of Male and Female Engineering Students: An Examination of Academic and Environmental Variables
Description/Annotation:	This article discusses an exploratory study of student persistence and performance in a key course in the engineering sequence. Researchers evaluated whether certain characteristics of students (i.e., their gender, SAT-math scores, GPA) and institutions (i.e., class size, percentage of female enrollment, gender of instructor) would be associated with higher levels of persistence and performance. Within-gender analyses showed that the primary factors associated with persistence were GPAs and SAT-math scores. Between-gender analyses revealed that the size and direction of the gender gap in persistence varied across institutions. Factors associated with these variations included the selectivity of the institution and the relative level of female persistence.
Author Last Name:	Takahira
Author First Name:	Sayuri
Additional Author:	Goodings
:	Deborah J.
Additional Author:	Byrnes
:	James P.
Publication Date:	1998, Jul
Page Numbers:	297-304
Publication Title:	Journal of Engineering Education
Volume:	87
Issue:	3
Source:	Wiley
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Retention of Recent Women Engineering, Mathematics, and Science Graduates in the Workplace

Resource Title: Retention of Recent Women Engineering, Mathematics, and Science Graduates in the Workplace

Description/Annotation: This study was initiated in response to several conversations the first author, Dr. Parker, had with women who were either nearing graduation from the Civil and Environmental Engineering (CEE) program at the University of Wisconsin-Platteville (UWP) or had recently begun working in the engineering workplace. This paper introduces a survey to 303 recent women engineering, mathematics, and science graduates from UWP and analyzes and assesses the results.

Author Last Name: Parker

Author First Name: Philip J.

Additional Author: Ralph

: Erin E.

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Retention of Underrepresented College Students in STEM

Resource Title: Retention of Underrepresented College Students in STEM

Description/Annotation: This literature overview addresses several psychological factors believed to be salient in retention patterns for women and particularly ethnic minority students who are underrepresented across STEM disciplines. Considers how students' expectancy for success (self-efficacy), motivation, and attitudes affect women and minority students' satisfaction, success, and retention in their STEM programs.

Author Last Name: Kelly A.

Author First Name: Rodgers

Publisher: SWE-AWE, NAE-CASEE

Publication Date: 2009

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Information Sheet, Literature Review

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Retention of Women and Minority Engineering Educators: Is This Important to the Profession?

Resource Title: Retention of Women and Minority Engineering Educators: Is This Important to the Profession?

Description/Annotation: This paper discusses a study of retention of women and minority engineering educators. A survey was given to a pool of tenure-track engineering educators and Ph.D. candidates who were also female and/or minority. The results are presented in this paper.

Author Last Name: Mattei

Author First Name: Norma Jean

Publication Date: 2002

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Retention](#)

Retention of Women of Color in STEM Doctoral Programs

Resource Title:	Retention of Women of Color in STEM Doctoral Programs
Description/Annotation:	This 6-page research paper from two graduate students at Michigan State University (MSU) analyzes the experiences and outcomes affecting women of color's persistence in STEM doctoral programs. According to the paper, the following themes emerged from the study as most salient to the participants' persistence: financial; socialization (peer and faculty), motivation (preference for long-term goals and degree completion); group affiliation and external support systems. The full paper is available in PDF format.
Author Last Name:	Soto
Author First Name:	Missy
Additional Author:	Yao
:	Christina
Publisher:	Presented at the Midwest Research-to Practice Conference in Adult, Continuing, and Community Education, Michigan State University
Publication Date:	2010, Sep
Source:	MSU
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Review of Gender Differences in Learning Styles: Suggestions for STEM Education

Resource Title: Review of Gender Differences in Learning Styles: Suggestions for STEM Education

Description/Annotation: Women have made great strides in baccalaureate degree obtainment, out numbering men by over 230,000 conferred baccalaureate degrees in 2008. However, the proportion of earned degrees for women in some of the Science, Technology, Engineering, and Mathematics (STEM) courses continues to lag behind male baccalaureate completions. In addition, according to the National Center for Women and Information Technology (NCWIT), only 21% of information and computer science degrees were awarded to women in 2006 (NCWIT, 2007). This paper presents gender differences in learning styles and recommends teaching methodologies most preferred for female learners in STEM courses. Further, a survey was administered to ascertain the extent the results of this study support previous findings. Funded by NSF GSE under award #0733747.

Author Last Name: Kulturel-Konak

Author First Name: Sadan

Additional Author: D'Allegro

: Mary Lou

Additional Author: Dickinson

: Sarah

Publication Date: 2011

Page Numbers: 9-18

Publication Title: Contemporary Issues in Education Research

Volume: 4

Issue: 3

Source: The Clute Institute

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#)

Reviewing Applicants: Research on Bias and Assumptions

Resource Title:	Reviewing Applicants: Research on Bias and Assumptions
Description/Annotation:	A brief introduction to the social psychological literature on unconscious biases and assumptions, with a focus on how these unconscious biases might influence evaluation of candidates in the faculty search process. Specific advice derived from this research are included. Intended Audience is Faculty search committee chairs and members. Intended Purpose: To be used as a tool within a search committee to openly discuss the issues of unconscious biases and assumptions so that all committee members can be aware of their presence and be on alert so that their impact might be lessened.
Author Last Name:	WISELI
Publisher:	University of Wisconsin-Madison
Publisher Location:	Madison, WI
Publication Date:	2004, 2005, 2006
Publication Title:	Reviewing Applicants: Research on Bias and Assumptions
Source:	WISELI
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#)

Revisiting S.A.T. Essay; The Writing Section? Relax

Resource Title:	Revisiting S.A.T. Essay; The Writing Section? Relax
Description/Annotation:	This online article highlights a particular controversy about the 2005 update of the SAT exam that was, in part, spurred by the University of California's complaints about the exam's inability to accurately measure students' abilities, especially in writing. The authors indicate that the new essay section included in the exam to try to address such a complaint has met with both further complaints from teachers and students and almost total disregard by university administrators.
Author Last Name:	Hass

Author First Name: Nancy
Publisher: The New York Times
Publisher Location: New York
Publication Date: 2008, Nov 05
Page Numbers: N/A
Publication Title: New York Times
Source: The New York Times
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Revitalizing the Nation's Talent Pool in STEM

Resource Title: Revitalizing the Nation's Talent Pool in STEM

Description/Annotation: This 30-page report contains an analysis of the Louis Stokes Alliances for Minority Participation (LSAMP), which provides assistance to encourage underrepresented minorities in STEM fields. The program was determined to be very successful, with program participants continuing to graduate school at greater rates than comparison groups of white and Asian students. More than 90 percent of LSAMP participants would recommend the program to others. This review provides an excellent example of a successful, large-scale program.

Author Last Name: Clewell

Author First Name: Beatriz

Additional Author: de Cohen
:
Clemencia

Additional Author: Tsui
:
Lisa

Additional Author: Deterding
:
Nicole

Publisher: Urban Institute

Publisher Location: Washington, D.C.
Publication Date: 2006, Apr 6
Page Numbers: 1-31
Source: Urban Institute
Source Type: Summary, Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Rewarding Good Citizens: The Relationship Between Citizenship Behavior, Gender, and Organizational Rewards

Resource Title: Rewarding Good Citizens: The Relationship Between Citizenship Behavior, Gender, and Organizational Rewards

Description/Annotation: This 24 page article reports the results of a study examining the relationship between organizational citizenship and promotion and salary. Gender was also tested as a moderator. Data was gathered from 440 working men and women. Results include how more frequent acts of organizational citizenship affected promotions and salary, and whether there was also a difference in the results for men and women. For industry leaders and the workforce.

Author Last Name: Allen
Author First Name: Tammy D.
Publisher: Bellwether Pub. Ltd.
Publisher Location: Columbia, MD
Publication Date: 2006
Page Numbers: 120-143
Publication Title: Journal of Applied Social Psychology
Volume: 36
Issue: 1
Source: Wiley

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Rising Above Cognitive Errors: Guidelines for Search, Tenure Review, and other Evaluation Committees

Resource Title: Rising Above Cognitive Errors: Guidelines for Search, Tenure Review, and other Evaluation Committees

Description/Annotation: This 44-page, inexpensive booklet focuses on more than a dozen cognitive biases and shortcuts which mar evaluation processes. These "contaminants" have a disproportionately damaging effect on women and minorities being evaluated. Remedies and precautions are outlined for both individuals and campuses. The booklet is used in leadership-development retreats for chairs, deans, and emerging leaders as well as in preparation and monitoring of evaluation and peer-review committees.

Author Last Name: Moody

Author First Name: JoAnn

Publisher: JoAnn Moody

Publisher Location: San Diego, CA

Publication Date: 2007

Page Numbers: 44

Source: Diversity on Campus

Source Type: Abstract, Available for Sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Hiring Practices](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future

Resource Title: Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future

Description/Annotation: A book with a strong message for the United States to take steps to restore a competitive edge in the areas of science and technology. Four major recommendations are made with suggested action steps to increase America's talent pool by improving K-12 education in science and math, improve recruitment and retention efforts, recognize the importance of research, and more. Considerable support must be given to these goals. Of interest to policy makers, educators, federal agencies, and industry.

Author Last Name: COSEPUP

Additional Author: Policy and Global Affairs

Publisher: The National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2007

Page Numbers: 1-592

Source: NAP

Database Name: The National Academies Press

Source Type: Partial text, Available for sale

Link to Additional Source Material:

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Rising Above the Gathering Storm: Two Years Later

Resource Title: Rising Above the Gathering Storm: Two Years Later

Description/Annotation: Report from April 2008 convocation of 500 representatives of business, government, and academia to review the efforts taken to achieve the goals laid out in Rising Above the Gathering Storm. The discussions reviewed progress made thus far in implementing the Gathering Storm recommendations to strengthen K-12 education in math and science, research, higher education, and the environment for innovation. Participants also noted that much additional work is needed to ensure that America remains a leader in science and engineering in the long term.

Author Last Name: Arrison

Author First Name: Thomas (Rapporteur)
Additional Author: COSEPUP
Additional Author: NAS
Additional Author: NAE
Additional Author: IOM
Publisher: National Academies Press
Publisher Location: Washington, D.C.
Publication Date: 2009
Page Numbers: 25
Source: COSEPUP
Source Type: Full text (requires free registration)

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Risky Business: Promises and Pitfalls of Institutional Transparency

Resource Title: Risky Business: Promises and Pitfalls of Institutional Transparency

Description/Annotation: In this article, the author offers three principles that will help maximize the benefit and minimize the potential mischief of making performance information from secondary education institutions available to the public.

Author Last Name: Kuh
Author First Name: George D.
Publisher: Heldref Publications
Publisher Location: Washington, D.C.
Publication Date: 2007
Page Numbers: 30-35
Publication Title: Change: The Magazine of Higher Learning
Volume: 39

Issue: 5
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Roadmaps and Rampways

Resource Title: Roadmaps and Rampways

Description/Annotation: The Roadmaps & Rampways website chronicles the journeys of three dozen students with significant disabilities from childhood to higher education in science, engineering, or mathematics, and on through their early career decisions.

Web site Link: [Link to Resource](#)

More: The American Association for the Advancement of Science (AAAS) selected the profiled students from a group of more than 350 students who applied to the ENTRY POINT! program, which placed disabled students into well-paid summer internships and co-ops.

Resources: The Roadmaps & Rampways website offers profiles of 36 disabled STEM students, as well as:

- [Students' backgrounds](#)
- [Assistive technology and support services](#)
- [1990s Profile of Students with Disabilities in Higher Education](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Roadmaps and Rampways website is sponsored by the American Association for the Advancement of Science (AAAS).

Last Update Date: June 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Roadshow-in-a-Box: Capitalizing on Models for Outreach

Resource Title: Roadshow-in-a-Box: Capitalizing on Models for Outreach

Description/Annotation: "Roadshow-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. This Box is a complete set of resources designed for colleges and universities wanting to establish or enhance their roadshow outreach programs. This Box includes program advice, templates, and sample materials to aid efforts in every aspect of a sustainable roadshow program. Resources include training guides, sample presentations, activity guides, and activity slides. Resources are available in PDF format and Powerpoint presentations.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2010, Apr

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Role Congruity Theory of Prejudice Toward Female Leaders

Resource Title: Role Congruity Theory of Prejudice Toward Female Leaders

Description/Annotation: The theory of prejudice explored in this article proposes women do not reach top leadership positions due to two types of prejudice. Traditional perceptions of gender roles and leadership roles are shown in either believing women have less leadership abilities than men, or judging women more harshly when compared to men. Research shows these prejudices exist, especially in more male dominated fields. Interesting for industry leadership and management, and women and men in the workforce.

Author Last Name: Eagly

Author First Name: Alice H.

Additional Author: Karau

: Steven J.
Publisher: American Psychological Association, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2002, Jul
Page Numbers: 573-598
Publication Title: Psychological Review
Volume: 109
Issue: 3
Database Name: PubMed
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Stereotype Threat](#)

Role Modelling as a Means of Enhancing Performance of Nigerian Girls in Science, Technology and Mathematics Education

Resource Title: Role Modelling as a Means of Enhancing Performance of Nigerian Girls in Science, Technology and Mathematics Education

Description/Annotation: The study investigated the effect of role modeling on the performance of Nigerian female undergraduates in two Universities in Southwestern Nigeria. The results revealed the effectiveness of role modeling strategy and the need for SMT in Schools.

Author Last Name: Duyilemi
Author First Name: Augustina
Publication Date: 2008, Jul
Page Numbers: 227
Publication Title: International Journal of Learning
Volume: 15
Issue: 3

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career](#)
[Factors](#) » [Mentoring](#)

Role Models Matter Toolkit

Resource Title: Role Models Matter Toolkit

Description/Annotation:

Author Last Name: Techbridge

Role of BHCUs as Baccalaureate-Origin Institutions of Black S&E Doctorate Recipients

Resource Title: Role of BHCUs as Baccalaureate-Origin Institutions of Black S&E Doctorate Recipients

Description/Annotation: An 8-page report on institutions (research, master's granting, baccalaureate granting, historically Black institutions, doctorate granting) from which Black science and engineering doctorate recipients originated. This documents contains data and statistics about the baccalaureate origins of Black doctorate recipients between 1977 and 2006, focusing on the role of historically Black colleges and universities (HBCU) in providing educational opportunities for African Americans. Among the findings, the report emphasizes the importance of these institutions; according to the report, the top 8 baccalaureate-origin institutions from 1997-2006 for Black science and engineering doctorate recipients were HBCUs.

Author Last Name: Burrelli

Author First Name: Joan

Additional Author: Rapaport

: Alan

Publisher: National Science Foundation

Publisher Location: Arlington, VA

Publication Date: 2008

Page Numbers: 1-8
Publication Title: InfoBrief SRS: Science Resource Statistics
Source: NSF
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Role of community colleges in STEM education: Thoughts on implications for policy, practice, and future research

Resource Title: Role of community colleges in STEM education: Thoughts on implications for policy, practice, and future research

Description/Annotation: As a concluding essay, the authors examine the common threads of this special issue of "Journal of Women and Minorities in Science and Engineering" as they pertain to future research, practice, and policy decisions about the role of community colleges in STEM education. Specifically, the authors discuss the ways in which current practices were measured and analyzed. As policy makers and stakeholders in education continue to raise expectations for community colleges to play a critical role in STEM education, the authors provide innovative research approaches and implications for all educational sectors to shape institutional and state policy issues. Funded by NSF GSE under award #0507882.

Author Last Name: Hoffman

Author First Name: Elizabeth

Additional Author: Starobin

: Soko S.

Additional Author: Laanan

: Frankie Santos

Additional Author: Rivera

: Marisa

Publication Date: 2010

Page Numbers: 85-96
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Publications by Funder](#)
» [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Role of Community Colleges: Broadening Participation Among Women and Minorities in STEM

Resource Title: Role of Community Colleges: Broadening Participation Among Women and Minorities in STEM

Description/Annotation: This article provides a greater understanding of the role of community colleges in broadening participation among women and minorities in STEM fields. The objectives are to (i) address the diverse functions of community colleges and their roles in providing access and opportunity for women and ethnic minorities to pursue STEM education; (ii) understand the role of community colleges as a pathway to a baccalaureate degree and beyond in STEM fields; (iii) investigate the role of career and technical education programs in community colleges in educating and training the twenty-first century workforce; and (iv) discuss the implications for policy and practice, and recommendations for future research. Funded by NSF GSE under award #0507882.

Author Last Name: Starobin
Author First Name: Soko S.
Additional Author: Laanan
:
Additional Author: Frankie Santos
:
Additional Author: Burger
:
Additional Author: Carol J.

Publication Date: 2010

Page Numbers: 1-5
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 1
Source: Research Gate
Source Type: Abstract

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Rolling Science Labs Bring Tools, Inspiration to Youngsters

Resource Title: Rolling Science Labs Bring Tools, Inspiration to Youngsters
Description/Annotation: Mobile labs are active in at least 10 states and are an important tool in attracting young people to STEM courses.
Author Last Name: Unze
Author First Name: David
Publisher: USA Today
Publication Date: 2009, Jun 9
Source: USA Today
Source Type: Full text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical Categories: Educational Factors Educational Factors » Informal Academic Preparation

Rudiments of Veterinary Science in the Primary Science Curriculum for the Nomadic Fulani in Nigeria: Building Curricular Bridges for Future Crossings

Resource Title: Rudiments of Veterinary Science in the Primary Science Curriculum for the Nomadic Fulani in Nigeria: Building Curricular Bridges for Future Crossings

Description/Annotation: A study was undertaken to discover the feelings of the children of a minority nomadic, pastoral people (the Fulani) about a primary science curriculum designed specifically for them by the federal government of Nigeria. Teachers engaged in implementing the new curriculum were chosen to be the respondents of the study. Through them, the attitudes of the children and their parents toward the new curriculum were measured. It was concluded that overwhelming evidence suggested that the Fulani children were interested in the veterinary aspects of the science curriculum.

Author Last Name: Ardo

Author First Name: G.V.

Additional Author: Daneji

:

A.I.

Publication Date: 2004

Page Numbers: 341-351

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Running a Great Lab: Workshops for Principal Investigators

Resource Title: Running a Great Lab: Workshops for Principal Investigators

Description/Annotation: This 8-session workshop series provides new Principal Investigators (PIs) the basic knowledge and skills needed to create a well-functioning and productive laboratory environment. Topics include: hiring great students and employees, creating a collegial climate, budgeting and purchasing, navigating the tenure process,

mentoring students, and more. Two faculty members facilitate the sessions, and many guest speakers from across campus are included in the sessions. New workshop series begin each fall, and are open to PIs who have been on campus for three years or less.

Author Last Name: WISELI
Publisher: University of Wisconsin-Madison
Publisher Location: Madison, WI
Source: WISELI
Source Type: Website with program resources

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#) [Career Factors » Tenure Policies & Practices](#)

S&E Degrees: 1966-2008

Resource Title: S&E Degrees: 1966-2008
Description/Annotation: This 87-page report from the National Science Foundation (NSF) provides statistics on degrees awarded by U.S. institutions from 1966 to 2008. The report disaggregates data by degree level, field, and sex of degree recipients. The full report is available in PDF format.
Author Last Name: Fienger
Author First Name: Mark K. (Project Officer)
Publisher: NSF
Publisher Location: Washington, DC
Publication Date: 2011, Jun
Page Numbers: 1-87
Source: NSF
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors » Formal Academic Preparation](#)

Salaries of Scientists, Engineers, and Technicians: A Summary of Salary Surveys

Resource Title:	Salaries of Scientists, Engineers, and Technicians: A Summary of Salary Surveys
Description/Annotation:	Published biennially. Comprehensive summary of salaries for scientists and engineers at multiple levels of experience, degree attainment, and type of employer. Valuable for graduates, faculty, and career professionals.
Author Last Name:	CPST
Publisher:	CPST
Publisher Location:	Washington, D.C.
Publication Date:	Biennial
Volume:	22
Source:	AGI
Source Type:	Summary, Available for sale

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Sally Ride Science

Resource Title:	Sally Ride Science
Description/Annotation:	Sally Ride Science is an innovative science education company. The company brings science to life through pioneering professional development, instructional solutions, and real-science investigations for students in 4th-8th grades. Sally Ride Science is focused on supporting and sustaining students' natural interests in science and technology through publications and out-of-school programs.
Web site Link:	Link to Resource
More:	Dr. Sally Ride, America's first woman in space, founded the company to educate, engage, and inspire all students.
Resources:	The Sally Ride website offers a wealth of information regarding innovative science programs and publications, including:

- Educators
 - **Classroom Sets** - enable educators to teach standards-based science content, build vocabulary and nonfiction literacy skills.
 - Homeschool Sets
 - Cool Careers in Science
 - Key Concepts in Science
- **Links We Like** - collection of products, organizations, and activities that promote math, science, and technology
- Programs
 - **Sally Ride Science Academy** - dedicated to helping teachers raise students' interest in science
 - **Sally Ride Science Festival**
 - Newsletter
 - **Educator Institutes** - hands-on workshops, activities, and information that teachers can take back to the classroom
 - EarthKAM - educational outreach program allowing middle school students to take pictures of Earth from a digital camera on board the International Space Station
 - **Sally Ride Camps** - summer camps throughout the U.S. providing girls an opportunity to explore STEM while having fun on a college campus
- Science Store

Site Access Details: This is a publicly accessible site.

Partners and Funding: Sally Ride Science is funded through corporate and community partners. Sally Ride Science is run by a 5-person management team and board of directors.

Last Update Date: July 27, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Diversity Orgs & Pgms for Women and Girls » Industry Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Same Courses, Different Outcomes? Variations in Confidence, Experience, and Preparation in Engineering Design

Resource Title: Same Courses, Different Outcomes? Variations in Confidence, Experience, and Preparation in Engineering Design

Description/Annotation: This study of engineering students extends research on gender differences by examining how confidence with design interacts with academic preparation and the frequency of design

experiences in engineering coursework. Patterns of gender differences within the racial/ethnic majority and minority groups are also examined.

Author Last Name: Morozov
Author First Name: Andrew
Additional Author: Kilgore
: Deborah
Additional Author: Ken
: Yasuhara
Additional Author: Atman
: Cynthia
Publisher: American Society for Engineering Education
Publisher Location: Washington, D.C.
Publication Date: 2008
Publication Title: Proceedings of the American Society for Engineering Education Annual Conference
Source: Oklahoma State University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

SAT Scores Take Another Dip

Resource Title: SAT Scores Take Another Dip
Description/Annotation: In this brief article, the author discusses a dip in student performance on the SAT college entrance exam, which marks the second year of declining performance since the 2005 revision of the exam. Includes data on the declines.
Author Last Name: Cech
Author First Name: Scott J.
Publisher: Editorial Projects in Education

Publisher Location: Bethesda, MD
Publication Date: 2007
Publication Title: Education Week
Volume: 27
Issue: 1
Source: Education Week
Source Type: Available for Purchase

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Satisfaction of Female Faculty at Public Two-Year Institutions

Resource Title: Satisfaction of Female Faculty at Public Two-Year Institutions

Description/Annotation: This paper examines the paths that women take toward employment in STEM at community colleges as well as factors that facilitate and hinder the advancement of women in STEM at community colleges. Data were collected by face-to-face interviews with 29 women faculty at nine community colleges in Ohio. Preliminary results indicate considerable career satisfaction among many female faculty members, but contradict a popular stereotype that “community colleges make life easier for women with families.”

Author Last Name: Koonce

Author First Name: David A.

Additional Author: Anderson
:
Cynthia D.

Additional Author: Conley
:
Valerie Martin

Additional Author: Mattley
:
Christine

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Saturday Academy

Resource Title: Saturday Academy

Description/Annotation: Saturday Academy is a non-profit, extracurricular, pre-college (grades 2-12) education program hosted by the College of Engineering at Oregon State University.

Web site Link: [Link to Resource](#)

More: The Saturday Academy offers Portland, Oregon-based hands-on classes and workshops for students in grades 4 - 12 in science, engineering and technology.

Resources: SA offers:

- Classes & workshops in Oregon and Washington
- The Apprenticeships in Science and Engineering (ASE) program matches high school freshman, sophomores and juniors with scientists and engineers for an 8-week summer apprenticeship in a professional, scientific or engineering environment.
- School programs
- Advocates for Women in Science, Engineering and Mathematics (AWSEM) is a science and math advocacy program for girls in middle and high schools. AWSEM clubs and classes offer girls fun and exciting activities in science, math and engineering and site visits to area businesses where girls meet professional women and engage in hands-on learning about careers in science, mathematics and engineering.

Site Access Details: This site is publicly accessible.
Partners and Funding: Oregon State University and non-profit donations.
Contact E-mail: ase@saturdayacademy.org
Last Update Date: May 8, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

Schematic Responses to Sexual Harassment Complainants: The Influence of Gender and Physical Attractiveness

Resource Title: Schematic Responses to Sexual Harassment Complainants: The Influence of Gender and Physical Attractiveness

Description/Annotation: Reactions to sexual harassment complainants were expected to be less favorable when the complainant was male than when the complainant was female. Results for the complainants of sexual harassment confirmed that men were believed less, liked less, and punished more than women. Furthermore, the tendency to believe and like female complainants more than male complainants was stronger when complainants were physically attractive.

Author Last Name: Madera

Author First Name: Juan M.

Additional Author: Podratz

: Kenneth E.

Additional Author: King

: Eden B.

Additional Author: Hebl

: Michelle R.

Publisher: Springer Netherlands

Publisher Location: Rotterdam, Netherlands
Publication Date: 2007
Page Numbers: 223-230
Publication Title: Sex Roles
Volume: 56
Issue: 3-4
Source: British Library
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

School and Teacher Predictors of Science Instruction Practices with English Language Learners in Urban Elementary Schools

Resource Title: School and Teacher Predictors of Science Instruction Practices with English Language Learners in Urban Elementary Schools

Description/Annotation: This study examined predictors of the following three science teaching practices with English language learning (ELL) students: (a) reform-oriented practices to promote understanding and inquiry, (b) traditional/conventional practices, and (c) English language development practices. Data were collected from 140 third- through fifth-grade teachers. Results indicate that perception of science knowledge and discussion of student diversity were significant predictors of both reform-oriented and traditional/conventional practices. Student diversity, standardized testing, and poor student academic skills were significant predictors of English language development practices.

Author Last Name: Maerten-Rivera
Author First Name: Jaime
Additional Author: Penfield
:
Additional Author: Myers

: Nicholas
Additional Author: Lee
: Okhee
Additional Author: Buxton
: Cory A.
Publication Date: 2009
Page Numbers: 93-118
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 2
Source: Begell House
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Science and Engineering Degrees, by Race/Ethnicity: 1997–2006

Resource Title: Science and Engineering Degrees, by Race/Ethnicity: 1997–2006
Description/Annotation: U.S. Government detailed statistics by sex, field, citizenship, and race/ethnicity of recipients for bachelor's, master's and doctoral degrees. Statistics for engineering technology degrees separate from engineering and science statistics.

Author Last Name: NSF
Additional Author: Fiegener
: Mark K. (Project Officer)
Publisher: National Science Foundation
Publisher Location: Washington, D.C.
Publication Date: 2009, Nov
Page Numbers: 129
Publication Title: NSF 10-300

Source: NSF
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports Articles/Reports](#) » [US National Reports Topical Categories: Educational Factors Educational Factors](#) » [Formal Academic Preparation](#)

Science and Engineering Doctorates: 2011

Resource Title: Science and Engineering Doctorates: 2011

Description/Annotation: NSF NCSES report based on 2010 Survey of Earned Doctorates (SED) of all individuals who receive a research doctorate from a U.S. academic institution in 2011. The annual SED is sponsored by NSF, NIH, USED, USDA, NEH, and NASA. These tables present detailed data on the demographic characteristics, educational history, sources of financial support, and postgraduation plans of doctorate recipients. The 70 tables, available in Excel or PDF format, are vital for educational and labor force planners within the federal government and academia.

Author Last Name: Fiegenger

Author First Name: Mark

Publisher: NCSES

Publisher Location: Arlington, VA

Publication Date: 2012, Dec

Source: NSF

Source Type: Full Text

Resource Type Categories: [Database/Tool](#) » [Database Data and Statistics](#) » [Reports Topical Categories: Career Factors Educational Factors Career Factors](#) » [Employment Educational Factors](#) » [Formal Academic Preparation](#)

Science and Engineering Indicators 2008

Resource Title: Science and Engineering Indicators 2008

Description/Annotation: Web-based biennial report from the NSB providing a plethora of quantitative metrics on the state of science and engineering.

Materials on K-12, higher education and the workforce for the U.S. with state indicators, global trends and global comparisons where applicable. Resources offered in pdf, html, excel, image and slide formats.

Author Last Name: NSB
Publisher: National Science Board
Publisher Location: Arlington, VA
Publication Date: 2008, Jan
Volume: NSB 08-01, NSB 08-01A
Source: NSB
Source Type: Website, Full text, Digest, Data tables

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors Educational Factors Educational Factors](#) » [Retention](#)[Career Factors](#) » [Retention](#)

Science and Engineering Indicators 2010

Resource Title: Science and Engineering Indicators 2010
Description/Annotation: Web-based biennial report from the NSB providing a plethora of quantitative metrics on the state of science and engineering. Materials on K-12, higher education and the workforce for the U.S. with state indicators, global trends and global comparisons where applicable. Resources offered in pdf, html, excel, image and slide formats.
Author Last Name: NSB
Publisher: National Science Board
Publication Date: 2010
Publication Title: NSB 10-01
Source: NSB
Source Type: Website, Full text, Digest, Data tables

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

Science and Engineering Indicators 2012

Resource Title:	Science and Engineering Indicators 2012
Description/Annotation:	This web-based biennial report from the National Science Board (NSB) provides a plethora of quantitative metrics on the state of science and engineering. Tables and figures include data on K-12, higher education and the workforce for the U.S. with state indicators, global trends and global comparisons where applicable. Resources are offered in pdf, html, excel, image and slide formats.
Author Last Name:	NSB
Publisher:	NSB
Publisher Location:	Arlington, VA
Publication Date:	2012
Page Numbers:	1-589
Publication Title:	NSB 12-01
Source:	NSB
Source Type:	Website, Full Text, Digest, Data Tables

Resource Type Categories: [Database/Tool](#) » [Database](#) [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Science and Engineering State Profiles: 2006–08

Resource Title:	Science and Engineering State Profiles: 2006–08
Description/Annotation:	The 2006–08 report, published only on the Web, includes a data source page and a set of 52 one-page science and engineering (S&E) profiles that summarize state-specific data on personnel and finances. Data in the profiles on doctoral scientists and engineers; S&E doctorates awarded, including by major S&E fields; SEH graduate students and postdoctorates; federal R&D obligations by agency and performer; total and industrial R&D expenditures; and academic R&D expenditures, including by major S&E fields are from SRS surveys. Data from non-SRS sources include population, civilian labor force, per capita personal income, federal

expenditures, patents, small business innovation research awards, and gross domestic product.

Author Last Name: NSF
Publisher: Division of Science Resources Statistics (SRS) of the National Science Foundation (NSF)
Publisher Location: Washington, D.C.
Publication Date: 2009, Nov
Page Numbers: 5
Publication Title: NSF 10-302
Source: NSF
Source Type: Full text (excel, pdf, interactive map)

Resource Type Categories: [Data and Statistics](#) » [Reports Articles/Reports](#) » [US National Reports Topical Categories: Career Factors Educational Factors Career Factors](#) » [Employment Educational Factors](#) » [Formal Academic Preparation Career Factors](#) » [Salary](#)

Science and Engineering State Profiles

Resource Title: Science and Engineering State Profiles

Description/Annotation: This National Science Foundation (NSF) data tool allows users to generate science and engineering (S&E) profiles that summarize state-specific data on personnel and finances. The State Profiles data tool can display a single state's profile or a profile containing up to 10 states. Rankings and totals are for the 50 states, District of Columbia, and Puerto Rico. Rankings are based on unrounded totals.

Author Last Name: NSF
Publisher: Division of Science Resources Statistics (SRS) of the National Science Foundation (NSF)
Publisher Location: Washington, DC
Publication Date: 2012, Oct
Source: NSF
Source Type: Full Text, Website, Excel

Resource Type Categories: Database/Tool » Database Data and Statistics » Reports Topical
Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors
» Retention

Science and its 'Other': Looking underneath 'woman' and 'science' for new directions in research on gender and science education

Resource Title:	Science and its 'Other': Looking underneath 'woman' and 'science' for new directions in research on gender and science education
Description/Annotation:	In this article, the author argues that, despite recent increases in the participation and achievement of girls in school science programs, the problem of gender and science education has not been solved, but is simply re-emerging at other sites. The author argues that much of the published research on gender and science education reproduces, rather than solves, the problem, through the way in which it assumes, rather than examines, the two central terms of the problem.
Author Last Name:	Gilbert
Author First Name:	Jane
Publication Date:	2001
Page Numbers:	291-305
Publication Title:	Gender and Education
Volume:	13
Issue:	3
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Educational Factors » Academic & Social Climate Cultural Influences Educational
Factors Cultural Influences » Gender Diversity Educational Factors » Retention

Science and Mathematics Instructional Time in an Urban Setting: Differences and Similarities Among Private and Public Schools

Resource Title: Science and Mathematics Instructional Time in an Urban Setting: Differences and Similarities Among Private and Public Schools

Description/Annotation: The amount of time dedicated to the teaching of mathematics and science can be quite different in elementary schools. Instructional time data were collected from a very large sample of schools and teachers in a single large urban region, which has received support through a National Science Foundation State Systemic Initiative, and an Urban Systemic Initiative. Results suggested a disparity in the amount of time allotted to key elementary school subjects. The disparity was similar in both private and public schools.

Author Last Name: Boone

Author First Name: William J.

Additional Author: Metcalf

: Kim K.

Additional Author: Paul

: Kelli M.

Additional Author: Lotter

: Christine

Additional Author: Kelly

: Mary Kay

Publication Date: 2009

Page Numbers: 343-355

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 4

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Science and Scientists in the Drawings of European Children

Resource Title:	Science and Scientists in the Drawings of European Children
Description/Annotation:	This 13-page paper describes the first step of a larger project known as the Science Education for the Development of European Citizenship (SEDEC), which is a 3-year project to study the interactions between science education, citizenship, and European identity. The goal of the first step of the project is to assess the perceptions of European children about science and scientists in order to improve science education. Several parts were included in this stage, including the "draw a scientist" activity, questionnaires for the students and teacher, and a concept map of the word "Europe". The analysis of the drawings and questionnaires showed stereotypical images of science and the scientist in terms of gender, discipline, and personal characteristics, with variation in the detail of the images between groups of students. Ultimately, the author suggests that the stereotypical images are deeply rooted in the culture and a more positive future for science in Europe requires overcoming these stereotypes.
Author Last Name:	Rodari
Author First Name:	Paola
Publication Date:	2007
Page Numbers:	1-13
Publication Title:	Journal of Science Communication
Volume:	6
Issue:	3
Source:	JCOM
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Science and Society: Time for a New Era of Science Diplomacy

Resource Title: Science and Society: Time for a New Era of Science Diplomacy

Description/Annotation: An argument that science has been and can continue to be an effective diplomatic tool to support U.S. foreign policy.

Author Last Name: Lord

Author First Name: Kristin M.

Additional Author: Turekian

: Vaughan C.

Publisher: American Association for the Advancement of Science (AAAS)

Publisher Location: Washington, D.C.

Publication Date: 2007, Feb

Page Numbers: 769-770

Publication Title: Science

Volume: 315

Issue: 5813

Source: AAAS

Source Type: Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Science and women in the history of education: expanding the archive

Resource Title: Science and women in the history of education: expanding the archive

Description/Annotation: Studies in the history of education have somewhat neglected the interrelationship of different forms of ‘knowledge’ and ideas of gender. This article investigates one particular field of knowledge—‘science’—to examine briefly both this neglect and how it might be rectified. It discusses what is meant by ‘science’, how gender has been conceptualized by feminist philosophers and historians of science and the neglect of such work by historians of education.

Author Last Name: Watts
Author First Name: Ruth
Publication Date: 2003, Mar
Page Numbers: 189-199
Publication Title: History of Education: Journal of the History of Education
Volume: 32
Issue: 2
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered](#)
[Occupations & Study Choices](#)

Science Anxiety and Gender in Students Taking General Education Science Courses

Resource Title: Science Anxiety and Gender in Students Taking General
Education Science Courses

Description/Annotation: This paper investigates science anxiety in a cohort consisting
mostly of nonscience majors taking general education science
courses. Regression analysis shows that the leading predictors of
science anxiety are (i) nonscience anxiety and (ii) gender.

Author Last Name: Udo
Author First Name: M.K.
Additional Author: Ramsey
: G.P.
Additional Author: Mallow
: J.V.
Publication Date: 2004, Dec
Page Numbers: 435-446
Publication Title: Journal of Science Education and Technology

Volume: 13
Issue: 4
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) »
[Retention](#)

Science Anxiety, Science Attitudes, and Gender: Interviews from a Binational Study

Resource Title: Science Anxiety, Science Attitudes, and Gender: Interviews from a Binational Study

Description/Annotation: This paper discusses a study in which interviews with eleven groups of Danish and American students were conducted. The interview topics included gender and national components of science education, science anxiety, and attitudes toward science. The groups were science and nonscience students at the upper secondary and university levels, and one group of American science teachers who were students in a science enrichment program. The interviews revealed a variety of relationships between and among science attitudes, science anxiety, nationality, gender, and course of study.

Author Last Name: Mallow

Author First Name: Jeffry

Additional Author: Kastrup

: Helge

Additional Author: Bryant

: Fred B.

Additional Author: Hislop

: Nelda

Additional Author: Shefner

: Rachel

Publication Date: 2010, Aug

Page Numbers: 356-369
Publication Title: Journal of Science Education and Technology
Volume: 19
Issue: 4
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual](#)
[Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Science Background and Spatial Abilities in Men and Women

Resource Title: Science Background and Spatial Abilities in Men and Women
Description/Annotation: This study examined mental rotation ability in three groups of students: those with no college science background, those with a limited college science background that did not include organic chemistry, and those with more extensive science background including organic chemistry.
Author Last Name: Brownlow
Author First Name: Sheila
Additional Author: McPheron
: Tamara K.
Additional Author: Acks
: Cheryl N.
Publication Date: 2003, Dec
Page Numbers: 371-380
Publication Title: Journal of Science Education and Technology
Volume: 12
Issue: 4
Source: Springer Link

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Science Can Take Her Places: Encouraging Your Daughter's Interests in Science, Math, and Technology: A Guide for Parents (Grades 4-7)

Resource Title: Science Can Take Her Places: Encouraging Your Daughter's Interests in Science, Math, and Technology: A Guide for Parents (Grades 4-7)

Description/Annotation: This 20-page guide from Sally Ride Science provides parents with the facts about girls and science, and practical ways to encourage daughter's interests in science, math, and technology. The guide includes data and statistics on girls in the field of science, tips for home and school, and helpful resources. The full guide is available in PDF format.

Author Last Name: Sally Ride Science

Publisher: Sally Ride Science

Publisher Location: San Diego, CA

Publication Date: 2006

Page Numbers: 1-20

Source: Sally Ride Science

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Science Career Interests Among High School Girls One Year After Participation in a Summer Science Program

Resource Title: Science Career Interests Among High School Girls One Year After Participation in a Summer Science Program

Description/Annotation: This paper discusses a residential summer program, the New Experiences for Women in Science and Technology (Newton) Academy, developed to encourage high school girls' interest in the physical sciences and engineering. This paper reports the results of a follow-up of the 1998 Newton Academy participants 1 year after participation. It focuses on the participants' interests in the physical sciences and related careers as measured by the Strong Interest Inventory before and 1 year after participation.

Author Last Name: Phillips

Author First Name: Katherine A.

Additional Author: Barrow

: Lloyd

Additional Author: Chandrasekhar

: Meera

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Individual Beliefs and Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Science Education for Women: Situated Cognition, Feminist Standpoint Theory, and the Status of Women in Science

Resource Title: Science Education for Women: Situated Cognition, Feminist Standpoint Theory, and the Status of Women in Science

Description/Annotation: This paper examines the relation between situated cognition theory in science education, and feminist standpoint theory in philosophy of science. It shows that situated cognition is an idea borrowed from a long since discredited philosophy of science. It argues that feminist standpoint theory ought not be indulged as it is a failed challenge to traditional philosophy of science.

Author Last Name: Pinnick

Author First Name: Cassandra L.

Publication Date: 2008, Nov

Page Numbers: 1055-1063

Publication Title: Science & Education

Volume: 17

Issue: 10

Source: SpringerLink

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Science Experiences Among Female Athletes: Races Makes a Difference

Resource Title: Science Experiences Among Female Athletes: Races Makes a Difference

Description/Annotation: In this research, the authors used critical feminist theory to guide their examination of racial and ethnic variations in the relation between sport participation and science experiences for young women. Data from the nationally representative National Education Longitudinal Study were used to explore the impact of sport participation in the 8th and 10th grades on 10th grade science achievement (measured by science grades and standardized test scores) and course taking for African American, Hispanic, and White women. The findings revealed that sport participation has some positive consequences for the science experiences of each of the groups of women.

Author Last Name: Hanson

Author First Name: Sandra L.
Additional Author: Kraus
: Rebecca S.
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Science faculty's subtle gender biases favor male students

Resource Title: Science faculty's subtle gender biases favor male students
Description/Annotation: This 6-page report, from the Proceedings of the National Academy of Sciences of the United States of America (PNAS), documents results of a study investigating whether science faculty exhibit a bias against female students that could contribute to the gender disparity in academic science. The study also assessed faculty participants' preexisting subtle bias against women using a standard instrument and found that preexisting subtle bias against women played a moderating role. According to the report, the results suggest that interventions addressing faculty gender bias might advance the goal of increasing the participation of women in science. The full report is available in PDF format.

Author Last Name: Moss-Racusin
Author First Name: Corinne A.
Additional Author: Dovidio
: John F.
Additional Author: Brescoll
: Victoria L.

Additional Author: Graham
:
Additional Author: Handalsman
:
Publisher: National Academy of Sciences
Publisher Location: Washington, DC
Publication Date: 2012, Sep 14
Page Numbers: 1-6
Publication Title: PNAS Early Edition
Source: PNAS
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

Science for All Americans

Resource Title: Science for All Americans

Description/Annotation: This 272-page book is based on Project 2061, a scientific literacy initiative sponsored by the American Association for the Advancement of Science (AAAS). This wide-ranging book explores what constitutes scientific literacy in a modern society; the knowledge, skills, and attitudes all students should acquire from their total school experience from kindergarten through high school; and what steps this country must take to begin reforming its system of education in science, mathematics, and technology.

Author Last Name: Rutherford

Author First Name: F. James

Additional Author: Ahlgren
:
Andrew

Publisher: Oxford University Press

Publisher Location: New York, NY

Publication Date: 1991, Feb
Page Numbers: 272
Source: Oxford University Press
Source Type: Abstract/Available for Sale

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Educational Factors » Curriculum Educational Factors Educational Factors » Pedagogy & Instruction

Science in Action: How to Follow Scientists and Engineers through Society

Resource Title: Science in Action: How to Follow Scientists and Engineers through Society

Description/Annotation: This book brings together different approaches to provide a challenging analysis of science, demonstrating how social context and technical content are both essential to a proper understanding of scientific activity.

Author Last Name: Latour

Author First Name: Bruno

Publisher: Harvard University Press, Inc.

Publisher Location: Cambridge, MA

Publication Date: 1987

Publication Title: Science in Action

Source: Amazon

Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Science Majors and Degrees among Asian American Students: Influences of Race and Sex in "Model Minority" Experiences

Resource Title: Science Majors and Degrees among Asian American Students: Influences of Race and Sex in "Model Minority" Experiences

Description/Annotation: Both race and sex continue to be factors that stratify entry into science education and occupations in the United States. Asian-Americans (men and women) have experienced considerable success in the sciences and have earned the label of "model minority." The complexities and patterns involved in this success remain elusive. Authors use several concepts coming out of the status attainment framework and a multicultural gender perspective to explore the way in which race and sex come together to influence choices of science major and degree. Findings suggest that being male and being Asian-American are both associated with higher chances of pursuing majors and degrees in science. The male advantage is greater than the Asian-American advantage. Findings also suggest that race and sex interact in the science decision. For example, race differences (with an Asian-American advantage) in choice of science major are significant for women but not men. Sex differences (with a male advantage) in choice of science major are significant in the white, but not the Asian-American sample. A different set of race and sex patterns is revealed in the science degree models. Processes associated with family socioeconomic status and student characteristics help to explain race and sex patterns. Findings suggest that when Asian-American youths have closer ties to the Asian culture, they are more likely to choose science majors and degrees. Implications for policy, practice, and research in science education are discussed. Funded by NSF GSE under award #0624493. Funded by NSF GSE under award #0624493.

Author Last Name: Meng

Author First Name: Yu

Additional Author: Hanson
: Sandra L.

Publication Date: 2008

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 3

Source: Harvard University

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM](#)
[Career Interest/Awareness](#)

Science NetLinks

Resource Title: Science NetLinks

Description/Annotation: Science NetLinks' role is to provide a wealth of standards-aligned resources for K-12 science educators, including lesson plans, interactive and reviewed Internet resources.

Web site Link: [Link to Resource](#)

Resources: Resources include:

- Lesson Plans by student grade level with relevant benchmark
- Tools - interactive activities by student grade level with relevant benchmark
- Reviewed website links organized by student grade level
- Benchmarks for Science Literacy by student grade level

Site Access Details: This site is publicly accessible.

Partners and Funding: Science NetLinks is part of Thinkfinity, a partnership between the Verizon Foundation and 11 premier educational organizations. The Thinkfinity partners include the AAAS, the National Endowment for the Humanities, the National Council on Economic Education, the National Geographic Society, the National Council of Teachers of Mathematics, the International Reading Association, the National Council of Teachers of English, the John F. Kennedy Center for the Performing Arts, the Smithsonian National Museum of American History, and the Literacy Network.

Last Update Date: June 9, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) [Topical](#) Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Science Professional: Master's Education for a Competitive World

Resource Title: Science Professional: Master's Education for a Competitive World

Description/Annotation: This 148-page book discusses the current and future status of the master's degrees in natural science. The authors propose a new focus on a professionally targeted master's degree with an emphasis on interdisciplinary training and skills to produce a new type of scientist. Research conducted by the National Research Council's Committee on Enhancing the Master's Degree in the Natural Sciences suggests that natural science master's degrees are varied in form and content, that institutions of higher education are responding to the need for both scientific and professional skills by placing professional master's degrees alongside traditional master's training programs. Includes policy proposals at the state and institutional level, along with suggestions for other benefiting institutions.

Author Last Name: NRC

Publisher: National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2008

Page Numbers: 148

Source: NRC

Database Name: NAP

Source Type: Available for Sale

Resource Type Categories: Book Topical Categories: Educational Factors » Curriculum Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Pedagogy & Instruction

Science Related Degrees: Improving the Retention of Women and Minorities through Research Experience, Mentoring, and Financial Assistance

Resource Title: Science Related Degrees: Improving the Retention of Women and Minorities through Research Experience, Mentoring, and Financial Assistance

Description/Annotation: This paper discusses the Women in Science, Engineering and Mathematics program (WISEM) and the Minority Engineering Program (MEP) at Colorado School of Mines (CSM), dedicated

to improving the retention and advancement of women and minorities at CSM.

Author Last Name: Moskal
Author First Name: Barbara M.
Additional Author: Lasich
:
Additional Author: Middleton
:
Publication Date: 2001
Publication Title: 2001 ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Mentoring](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Science Theatre Art Recreation (STAR) Education, Inc.

Resource Title: Science Theatre Art Recreation (STAR) Education, Inc.

Description/Annotation: STAR Education is a non-profit charitable education organization focused on educational after school programming for students throughout California. STAR offers a wide breadth of services to schools and families before, during and after school hours. Working with superintendents, principals, teachers, parents and other stakeholders, as well as local agencies and community groups, STAR provides enrichment opportunities, including the fields of science and math.

Web site Link: [Link to Resource](#)

More: STAR has been recognized as a "model program" by the White House and the U.S. Department of Education and received the Fete d'Excellence Award in association with the United Nations.

Resources: The STAR website contains information on STAR programs and Camps, including:

- **IQ-GO! Math** - gives K-12 students the opportunity to experience immediate success in math
- **IQ-GO! Science** - afterschool STEM programs
- **STAR Summer Camps** - includes 7 unique STEM camps

Site Access Details: This is a publicly accessible site.

Partners and Funding: STAR is a non-profit organization.

Contact E-mail: Starincorp@earthlink.net

Last Update Date: July 27, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Science, Technology, Engineering and Mathematics (STEM) Pathways: High School Science and Math Coursework and Postsecondary Degree Attainment

Resource Title: Science, Technology, Engineering and Mathematics (STEM) Pathways: High School Science and Math Coursework and Postsecondary Degree Attainment

Description/Annotation: This article examines how high school science and mathematics course-taking creates pathways toward future baccalaureate degree attainment in science, technology, engineering, and mathematics (STEM) majors in Florida 4-year universities using Burkam and Lee's (2003) course-taking categories developed using national student datasets. This study finds that even though women, overall, complete high-level courses, they do not complete the highest level science and mathematics courses. Even women who did complete high-level science and mathematics are less likely than men to obtain STEM degrees. Black and Hispanic students complete lower level high school courses, but Black and Hispanic students who did take high-level courses are as likely as White students to pursue STEM degrees. Findings suggest that gender disparities in STEM occur because women are less likely to pursue STEM, but racial disparities occur because fewer Black and Hispanic students are prepared for STEM in high school. Funded by NSF GSE under award #0337543.

Author Last Name: Tyson

Author First Name: Will

Additional Author: Lee

: Reginald

Additional Author: Borman
: Kathryn M.
Additional Author: Hanson
: Mary Ann
Publication Date: 2007, Oct
Page Numbers: 243-270
Publication Title: Journal of Education for Students Placed at Risk
Volume: 12
Issue: 3
Source: ERIC
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Science, Technology, Engineering, and Mathematics (STEM) Education Issues and Legislative Options

Resource Title: Science, Technology, Engineering, and Mathematics (STEM) Education Issues and Legislative Options

Description/Annotation: Congressional Research Service report presents data on the state of STEM education and examines the federal role in promoting STEM education.

Author Last Name: Kuenzi
Author First Name: Jeffrey
Additional Author: Matthews
: Christine
Additional Author: Mangan
: Bonnie F.
Publisher: Congressional Research Service
Publisher Location: Washington, DC

Publication Date: 2006, May 22
Volume: RL33434
Source: CRS
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Science360 Knowledge Network

Resource Title: Science360 Knowledge Network

Description/Annotation: Science360 immerses visitors in the latest wonders of science, engineering, technology and math (STEM) by gathering new science videos provided by scientists, colleges and universities, science and engineering centers, the National Science Foundation and more. Each video is embeddable for use on personal websites, blogs and social networking pages. Science360 engages the general public, science junkies and students in the cutting-edge discoveries and big science stories of the day.

Web site Link: [Link to Resource](#)

More: Science360 is an up-to-date view of breaking science from around the world.

Resources: The Science360 website allows users to:

- Browse videos by Topic and Series
- Search links to the four Science360 Networks:
 - [News](#)
 - [Radio](#)
 - [Video](#)
 - [Ipad](#)

Site Access Details: This site is publicly accessible.

Partners and Funding: Science360 is sponsored by the National Science Foundation (NSF).

Last Update Date: July 27, 2013

Resource Type Categories: [Webinar/Video Website/Portal](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors Cultural Influences » Media & Entertainment Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Science: The Nation's Report Card (NAEP)

- Resource Title:** Science: The Nation's Report Card (NAEP)
- Description/Annotation:** NAEP, or the National Assessment of Educational Progress, is often called the "Nation's Report Card." It is the only measure of student achievement in the United States where you can compare the performance of students in your state with the performance of students across the nation or in other states.
- Web site Link:** [Link to Resource](#)
- More:** The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history.
- Resources:** Resources from the Science Nation's Report Card include:
- NAEP 2011 science assessment results for grades 8
 - 2009 Trial Urban District Assessment (TUDA)
 - NAEP Data Explorer for interactive data reporting
 - Schedule of NAEP assessments
 - NAEP Publications
 - 2009 Science in Action: Hands-On and Interactive Computer Tasks report
- Site Access Details:** This site is publicly accessible.
- Partners and Funding:** The Commissioner of Education Statistics, who heads the National Center for Education Statistics in the U.S. Department of Education, is responsible by law for carrying out the NAEP project.
- Last Update Date:** Dec 26, 2012

Resource Type Categories: [Data and Statistics » Reports Database/Tool » Research Tools](#) Topical Categories: [Educational Factors » Curriculum Educational Factors Educational Factors » Formal Academic Preparation](#)

Sciencewomen: A Scientist and an Engineer being the change we want to see

Resource Title: Sciencewomen: A Scientist and an Engineer being the change we want to see

Description/Annotation: Pseudonymous Science Woman and real life name Alice Pawley blog about their challenges on the tenure track at research-oriented universities in the U.S. Among many other things, Science Woman includes discussion of her life as mother to toddler Minnow, and Pawley blogs about her commitment to feminism and social justice within the field of engineering.

Web site Link: [Link to Resource](#)

More:

From Alice: "I'm an assistant professor in the super-cool School of Engineering Education at Purdue University. I'm an engineer, but a comparatively weird engineer: a feminist, radical, social justice-y engineer. In my research, I combine theoretical frameworks from women's studies, sociology, science and technology studies to apply to the study of engineering and engineering education - I like to think of my work as feminist engineering research."

From co-blogger SciWo"

"I'm an assistant professor of geosciences at Mystery University in Mystery City. I'm mother to Minnow and daughter to ScienceGrandma. I mostly blog about my experiences as a woman scientist struggling to balance the demands of academia and a family. I blog because when I was a graduate student contemplating the future, I felt isolated and alone in my ambitions to do good research and be a good mother/wife/person. I don't want other young scientists to feel that way."

Resources:

The Sciencewomen [blogroll](#) provides a long list of related blogs on women in STEM

Site Access Details: This blog site is publicly accessible.

Contact Name: Alice Pawley and SciWi (cobloggers)

Contact E-mail: apawley@purdue.edu

Last Update Date: May 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Scientists and Engineers Statistical Data System (SESTAT)

Resource Title: Scientists and Engineers Statistical Data System (SESTAT)

Description/Annotation: SESTAT is an integrated database capturing information about employment, educational, and demographic characteristics of scientists and engineers in the United States. The data are collected from three national biennial surveys: the National Survey of College Graduates (NSCG), the National Survey of Recent College Graduates (NSRCG), and the Survey of Doctorate Recipients (SDR).

Web site Link: [Link to Resource](#)

More: 2010 data from SESTAT are available for download in [public use files](#) or through the [SESTAT data tool](#).

Resources: SESTAT website includes:

- publications
- access to SESTAT tool
- access to survey instruments

Site Access Details: This site is publicly accessible.

Partners and Funding: SESTAT was created by the National Science Foundation (NSF) to provide data for policy analysis and general research.

Contact E-mail: sestat@nsf.gov

Last Update Date: June 24, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Salary](#)

SciGirls Videos

Resource Title: SciGirls Videos

Description/Annotation: These videos offer a collection of the Emmy-award winning PBS TV series SciGirls, which provides educators with model inquiry and engineering projects by real girls. The diverse middle school girls featured on the programs make science appealing and fun for all, as they demonstrate activities that range from programming a rescue robot to going on an archaeological dig.

Web site Link: [Link to Resource](#)

More: The companion activity guide aligns with the National Science Education Standards for Grades 3 through 8, the Standards for Technological Literacy, and the National Council of Teachers of Mathematics Standards.

Resources: The following DVD collections are available for purchase:

Season 1 Collection includes the following topics:

- Engineering
- Computer Science & IT
- Environmentalism
- Health & Nutrition

Introductory Collection- Volume 1 includes the following segments:

- Water Slides
- Forecasting
- Lego Robots
- Exercise & Memory
- Extreme Sounds
- Sand Dunes
- Pet Handedness
- Hovercraft
- Colorblind Dogs
- Malformed Frogs
- Hockey
- Milk Carton Derby
- Lift Off
- Kites

Introductory Collection Volume 2 includes the following segments:

Bogs
Music & Sound
Luge
Earthquakes
Dinosaurs

California Fish
Doghouse Design
Animal Ears
Tug-of-War
Forensic Science
Rabbits
Microgravity
Double Dutch
Soccer Kicks

Site Access Details: This is a publicly accessible site.

Partners and Funding: SciGirls is produced by TPT Productions and is funded by NSF with additional support from ExxonMobil.

Contact E-mail: hvanheel@tpt.org

Last Update Date: July 25, 2013

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

SciGirls

Resource Title: SciGirls

Description/Annotation: The SciGirls website is a science-centric social networking site for teen girls and aims towards encouraging girl's curiosity in STEM fields. The website is a companion to the hands-on science TV series, "SciGirls", which airs on PBS Kids. The website offers customabizable profile pages, full episodes from the series, user-submitted videos, and interactive science games and projects. The website also provides a database of after-school science clubs, as well as links providing parents and educators with resources to help promote girls' interest in STEM.

Web site Link: [Link to Resource](#)

More: SciGirls premiered nationwide on public television stations and online in February 2010.

Resources: The website allows girls to interact and share ideas through a number of resources including:

- Personal Profiles
- Projects
- Videos
- Database for after-school science programs

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: SciGirls is produced by TPT Productions and is funded by NSF with additional support from ExxonMobil.

Contact Name: Heidi Van Heel

Contact E-mail: hvanheel@tpt.org

Last Update Date: July 23, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Searching for Excellence & Diversity: A Guide for Search Committee Chairs

Resource Title: Searching for Excellence & Diversity: A Guide for Search Committee Chairs

Description/Annotation: A guidebook outlining the "5 Essential Elements of a Successful Search." Includes specific advice and best practices for faculty search committees. Intended Audience: Faculty search committee chairs and members. Intended Purpose: To be used within a workshop or training session for faculty search committee chairs and members.

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2005

Source: WISELI

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors Career Factors » Hiring Practices](#)

Searching for Excellence & Diversity: A Guide for Search Committees

Resource Title: Searching for Excellence & Diversity: A Guide for Search Committees

Description/Annotation: This 109-page guidebook serves as a useful resource for schools, colleges, and/or universities seeking to implement educational programs for faculty search committees. The guidebook outlines six essential elements of the search process and aims to help search committees improve the effectiveness and efficiency of all activities related to recruiting and hiring new faculty members.

Author Last Name: Fine

Author First Name: Eve

Additional Author: Handelsman

:

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2012

Page Numbers: 1-109

Source: WISELI

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#)

Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of Women?

Resource Title: Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of Women?

Description/Annotation: The University of Wisconsin-Madison designed and implemented training for chairs of faculty hiring committees. The workshops are implemented using a variety of formats, but the common elements that make them successful include: peer teaching; active learning; unconscious biases & assumptions; and accountability. In 2004 and 2005, over half (61%) of departments in biological and physical sciences sent at least one faculty member to this training (usually the chair of the search committee). Using data on faculty offers and faculty new hires, researchers have found that

the departments who sent at least one person for training did increase the percentage of offers that went to women as well as the number of new assistant professors who are women. In this same time period, non-participating departments actually saw the percentage of offers made to women and their percentage of women new assistant professors decline. This paper indicates that given a willing audience, this training appears to be correlated with increased hiring of women faculty, as well as other desirable changes to hiring processes at UW-Madison. Funded by NSF ADVANCE under award #0619979.

Author Last Name: Sheridan
Author First Name: Jennifer
Additional Author: Fine
:
Additional Author: Winchell
:
Additional Author: Pribbenow
:
Additional Author: Carnes
:
Publication Date: 2007
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

Searching for Excellence & Diversity® Workshops for Faculty Search Committees

Resource Title: Searching for Excellence & Diversity® Workshops for Faculty Search Committees

Description/Annotation: This workshop, implemented at University of Wisconsin-Madison since 2004, provides faculty with information, advice, and techniques that will help them run more effective and efficient search committees, diversify their applicant pools, their interviewed candidates, the offers they make, and ultimately the new faculty they hire. Departments that send faculty to these workshops have increased the hiring of women in their departments, and new hires in these departments are more satisfied with the hiring process than new hires in departments that have not participated. WISELI makes the materials from this workshop available to other universities.

Author Last Name: WISELI
Publisher: University of Wisconsin-Madison
Publisher Location: Madison, WI
Source: WISELI
Source Type: Website with program resources

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

Searching for Excellence: Effective and Efficient Search Practices

Resource Title: Searching for Excellence: Effective and Efficient Search Practices

Description/Annotation: This 11-page paper from the 2012 WEPAN National Conference describes some of the innovative recruitment efforts developed by the National Science Foundation (NSF) ADVANCE institutions to increase the excellence and diversity of their candidate pools. The conference paper shares insights and lessons learned from the implementation of such programs at North Dakota State University. The full paper is available in PDF format.

Author Last Name: Bilen-Green
Author First Name: Canan
Additional Author: Froelich
: Karen A.
Additional Author: Holbrook
: Sandra

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-11
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

Second Chance, Not Second Class: A Blueprint for Community-College Transfer

Resource Title: Second Chance, Not Second Class: A Blueprint for Community-College Transfer

Description/Annotation: This eight page article details "seven successful habits" implemented in California to increase the chances of success for those transferring from Community Colleges to 4-year universities. Transfer students increased 33% after implementation.

Author Last Name: Handel

Author First Name: Stephen J.

Publication Date: 2007

Page Numbers: 38-45

Publication Title: Change: The Magazine of Higher Learning

Volume: 39

Issue: 5

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

See Jane Lead: 99 Ways for Women to Take Charge at Work

Resource Title:	See Jane Lead: 99 Ways for Women to Take Charge at Work
Description/Annotation:	Bestselling author Lois Frankel, PhD, gives advice to women in leadership roles through anecdotes and tips about being a leader. Although a somewhat lighter approach, still contains hard-hitting and relevant advice about taking risks, building teams, and more. Frankel maintains women can be taken seriously while still keeping their compassion and nurturing nature. Good for any women in the workplace.
Author Last Name:	Frankel
Author First Name:	Lois P.
Publisher:	Warner Business Books
Publisher Location:	New York, NY
Publication Date:	2007, Apr
Page Numbers:	1-304
Source:	Amazon
Source Type:	Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#)

Seeing Oneself as a Scientist: Media Influences and Adolescent Girls' Science Career-Possible Selves

Resource Title:	Seeing Oneself as a Scientist: Media Influences and Adolescent Girls' Science Career-Possible Selves
Description/Annotation:	This study investigated adolescents' academic self-views related to science and the impact of viewing televised scientist characters on these views. This study also assessed adolescents' future career preferences, in general, and specifically in science. Television images of scientists were selected from programs popular among or likely to have been seen by middle school students. The results of this study found that prior to viewing televised scientist characters, girls had lower views of their current but not future

academic science self-views than did boys. Viewing televised scientist characters led to a positive change in both adolescent girls' and adolescent boys' future but not current academic science self-views. Adolescent girls were more than twice as likely as boys to list scientific careers as hoped-for future careers; however, adolescent girls also listed scientific careers as feared future careers.

Author Last Name: Steinke
Author First Name: Jocelyn
Additional Author: Long
: Marilee
Additional Author: Van Der Maas
: Catherine
Additional Author: Ryan
: Lisa
Additional Author: Applegate
: Brooks
Publication Date: 2009
Page Numbers: 279-301
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Cultural Influences](#) » [Media &](#)
[Entertainment](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) »
[STEM Career Interest/Awareness](#)

**Seeking congruity between goals and roles: A new look
at why women opt out of STEM careers**

Resource Title: Seeking congruity between goals and roles: A new look at why women opt out of STEM careers

Description/Annotation: Although women have nearly attained equality with men in several formerly male-dominated fields, they remain underrepresented in the fields of science, technology, engineering, and mathematics (STEM). This article argues that one important reason for this discrepancy is that STEM careers are perceived as less likely than careers in other fields to fulfill communal goals (e.g., working with or helping other people). Such perceptions might disproportionately affect women's career decisions, because women tend to endorse communal goals more than men. As predicted, researchers found that STEM careers, relative to other careers, were perceived to impede communal goals. Moreover, communal-goal endorsement negatively predicted interest in STEM careers, even when controlling for past experience and self-efficacy in science and mathematics. Understanding how communal goals influence people's interest in STEM fields thus provides a new perspective on the issue of women's representation in STEM careers. Funded by NSF GSE under award #0827606.

Author Last Name: Diekman

Author First Name: Amanda B.

Additional Author: Brown

: Elizabeth R.

Additional Author: Johnston

: Amanda M.

Additional Author: Clark

: Emily K.

Publication Date: 2010

Page Numbers: 1051

Publication Title: Psychological Science

Volume: 21

Source: Sage

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

Self Authorship and Women in SET (Science, Engineering, Technology)

Resource Title: Self Authorship and Women in SET (Science, Engineering, Technology)

Description/Annotation: Members of groups underrepresented in science, engineering, and technology (SET), such as women and people of color, can face obstacles to success in SET careers, including demeaning stereotypes and reduced opportunities for career advancement. This literature review explores the potential of self-authorship to improve the recruitment and retention of women in SET fields.

Author Last Name: Elizabeth G.

Author First Name: Creamer

Additional Author: Kerri M.
: Wakefield

Publisher: SWE-AWE, NAE-CASEE

Publication Date: 2009

Volume: Applying Research to Practice (ARP) Series

Source: ARP

Source Type: Abstract, Information Sheet, Literature Review

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Self Efficacy of Women Engineering Students? Three Years of Data at U.S. Institutions

Resource Title: Self Efficacy of Women Engineering Students? Three Years of Data at U.S. Institutions

Description/Annotation: This paper describes the results of three years of engineering self-efficacy data collected from engineering students at five institutions across the U.S. Results indicate that while students show positive progress on some self-efficacy and related

subscales, they show a decrease on isolation subscale from the first to second measurement period.

Author Last Name: Marra
Author First Name: Rosa
Additional Author: Bogue
:
Additional Author: Barbara
Additional Author: Rodgers
:
Additional Author: Kelly
Additional Author: Shen
:
Additional Author: Demei
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Self-assessed confidence in EC-2000 outcomes: a study of gender and ethnicity differences across institutions

Resource Title: Self-assessed confidence in EC-2000 outcomes: a study of gender and ethnicity differences across institutions

Description/Annotation: As part of the larger study, the paper explores the issue of how confidence in the outcomes is influenced by gender and ethnicity factors at the freshman level. Using the University of Pittsburgh Freshman Engineering Attitude Post-Survey and data from 16 US engineering schools, who took the questionnaire during the 1998-99 academic year, authors have found a number of significant and consistent differences in the 11 outcomes with respect to student gender and ethnicity.

Author Last Name: Moreno
Author First Name: M.

Additional Author: Bestfield-Sacre
:
Additional Author: Shuman
:
Additional Author: Wolfe
:
Additional Author: Atman
:
Publication Date: 2000
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Self-authorship and Women's Career Decision Making

Resource Title: Self-authorship and Women's Career Decision Making

Description/Annotation: Current career literature provides little insight into how women interpret career-relevant experiences, advice, or information, particularly when it is contradictory. This paper uses findings from interviews with 40 college women to provide empirical confirmation for the link between self-authorship and career decision making. Findings underscore the role of inter-connectivity in women's decision making, particularly involving parents, and distinguish ways that this can reflect self-authorship. Self-authorship provides the theoretical framework to understand how students respond to career advice and suggests that students may reject career advice when it requires the cognitive complexity to engage diverse viewpoints. Findings endorse educational activities that require students to juggle competing knowledge claims to make complex decisions.

Author Last Name: Creamer

Author First Name: Elizabeth G.

Additional Author: Laughlin
:
Anne
Publisher: American College Personnel Association
Publication Date: 2005, Jan/Feb
Page Numbers: 13-27
Publication Title: Journal of College Student Development
Volume: 46
Issue: 1
Source: John Hopkins University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Self-efficacy Beliefs and Career Development

Resource Title: Self-efficacy Beliefs and Career Development
Description/Annotation: Overview article discusses low self-efficacy beliefs and consequent impacts on expectations and performance. Strategies for influencing self-efficacy positively are recommended. Useful for educators and WEP program directors.
Author Last Name: Brown
Author First Name: Bettina Lankard
Publication Date: 1999
Publication Title: ERIC Digest
Source: ERIC
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Self-Efficacy Beliefs, Motivation, Race, and Gender in Middle School Science

Resource Title:	Self-Efficacy Beliefs, Motivation, Race, and Gender in Middle School Science
Description/Annotation:	The purpose of this study was to discover whether the science motivation beliefs of middle school students vary as a function of their gender or race/ethnicity and to determine whether science self-efficacy beliefs predict science achievement when motivation variables shown to predict achievement in other academic areas are controlled. Girls reported stronger science self-efficacy and self-efficacy for self-regulation, and they received higher grades in science. Boys had stronger performance-approach goals. White students had stronger self-efficacy and achievement, and African American students reported stronger task goals.
Author Last Name:	Britner
Author First Name:	Shari L.
Additional Author:	Pajares
:	Frank
Publication Date:	2001
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	7
Issue:	4
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Self-Efficacy in STEM

Resource Title:	Self-Efficacy in STEM
Description/Annotation:	In this literature suite examples are provided describing how math self-efficacy affects students' commitment to studying math, and ultimately, students' commitment to pursuing a STEM degree and

profession. Also included is a review of empirical research that details the main determinants of self-efficacy beliefs, the importance of STEM self-efficacy for STEM achievement and success, interventions to increase STEM self-efficacy, and implications and recommendations for STEM practitioners.

Author Last Name: Rittmayer
Author First Name: Ashley D.
Additional Author: Beier
:
Margaret E.
Publisher: SWE-AWE, NAE-CASEE
Publication Date: 2009
Volume: Applying Research to Practice (ARP) Series
Source: ARP
Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Senior Technical Women: A Profile of Success

Resource Title: Senior Technical Women: A Profile of Success

Description/Annotation: This report offers a snapshot of a rarity in technology: senior technical women working at prominent Silicon Valley technology companies. The research reports the findings of a 2008 survey of 1,795 technical men and women at seven high-technology companies, but only focuses on senior technical women who comprise 4 percent of the sample. Results indicate that successful women in technology show the same attributes of success, the same human capital, and the same work values as senior level men. The report also offers recommendations to technology companies, including career development for women who excel as individual contributors.

Author Last Name: Simard
Author First Name: Caroline
Additional Author: Gilmartin

: Shannon K.
Publisher: Anita Borg Institute for Women and Technology
Publisher Location: Palo Alto, CA
Publication Date: 2010
Page Numbers: 1-31
Source: ABI
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Senior Women Scientists Overlooked and Understudied?

Resource Title: Senior Women Scientists Overlooked and Understudied?
Description/Annotation: This study uses the population of Association for Women in Science Fellows — more than 100 senior, distinguished women and men scientists and engineers elected by the Association for Women in Science for their contributions to science and technology and for their support to women in science and engineering — to explore perceived differences of barriers for junior and senior women scientists.
Author Last Name: Rosser
Author First Name: Sue V.
Publication Date: 2006
Page Numbers: 275-293
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Sense of belonging among women of color in science, technology, engineering, and math majors: Investigating the contributions of campus racial climate perceptions and other college environments

Resource Title:	Sense of belonging among women of color in science, technology, engineering, and math majors: Investigating the contributions of campus racial climate perceptions and other college environments
Description/Annotation:	This 222-page dissertation from a doctoral student at the University of Maryland examines the relationship between campus racial climate perceptions and other college environments to sense of belonging among undergraduate women of color in science, technology, engineering, and mathematics (STEM) majors. Results revealed that women of color reported a less strong sense of belonging than White/Caucasian women and had more interactions with diverse peers than White/Caucasian women. In addition, Black/African American women perceived a less positive campus racial climate than women from other racial/ethnic groups. The full dissertation is available in PDF format.
Author Last Name:	Johnson
Author First Name:	Dawn
Publisher:	Dissertation, University of Maryland
Publication Date:	2007, Nov
Page Numbers:	1-222
Source:	Digital Repository at the University of Maryland (DRUM)
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Separate but Superior? A Review of Issues and Data Bearing on Single-sex Education

Resource Title:	Separate but Superior? A Review of Issues and Data Bearing on Single-sex Education
Description/Annotation:	A 49-page overview of research on single-sex education. The author suggests that a number of questions must be asked when considering a proposal for single-sex educational contexts because the research on the topic indicates that single-sex education can affect a variety of social and behavioral outcomes. Provides a good overview of research on single-sex education.
Author Last Name:	Bracey
Author First Name:	Gerald W.
Publisher:	The Great Lakes Center for Education Research & Practice
Publisher Location:	East Lansing, MI
Publication Date:	2006
Page Numbers:	49
Source:	The Great Lakes Center for Education Research & Practice
Source Type:	Summary, Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#)

Serving Up Science and Engineering (to Girls Especially): a Quick Briefing

Resource Title:	Serving Up Science and Engineering (to Girls Especially): a Quick Briefing
Description/Annotation:	Designed like a 10-minute cookbook, book is a ready-made handout for outreach workshops providing highly selected digest of introductory information on women in science and engineering. Chapters on: The new kids “science and engineering cuisine” of activities, online and mostly free. Strategies behind activities

designed to appeal to girls, based on research. Who is in the community of practice, and why you might seek them out. What makes for a strong program – the high-end or gourmet in outreach programs. What we have learned from research about boys, girls, science, math, and technology. What makes this effort particularly important today.

Author Last Name: Sevo
Author First Name: Ruta
Additional Author: Bogue
: Barbara
Publisher: lulu.com
Publication Date: 2009, Oct
Page Numbers: 100
Source: Lulu
Source Type: Abstract, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors » Retention](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Sex and Science: How Professor Gender Perptuates the Gender Gap

Resource Title: Sex and Science: How Professor Gender Perptuates the Gender Gap

Description/Annotation: This working paper looks at the effect of instructor gender on student performance in introductory college math and science courses. In particular, the study suggests that having a woman instructor erases the so-called "gender gap" in grades for high performing women students. Instructor gender appears to have little effect on performance of men students. Women students were impacted not only in introductory math and science course performance, but also in likelihood of taking subsequent courses and in graduating with a degree in a STEM field.

Author Last Name: Carrell
Author First Name: Scott

Additional Author: Page
: Marianne
Additional Author: West
: James
Publisher: 2009, May
Publication Title: NBER Working Paper No. 14959
Source: UC Davis
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Sex differences and lateralization in temporal lobe glucose metabolism during mathematical reasoning

Resource Title: Sex differences and lateralization in temporal lobe glucose metabolism during mathematical reasoning

Description/Annotation: This study showed that no sex differences were found in cortical glucose metabolic rate (GMR) between men and women, but that GMR in temporal lobe regions was positively correlated to math reasoning scores in men, but not women. The test used Positron Emission Tomography to compare brain activation as subjects performed mathematical reasoning.

Author Last Name: Haier
Author First Name: Richard
Additional Author: Benbow
: Camilla
Publication Date: 1995
Page Numbers: 405-414
Publication Title: Developmental Neuropsychology
Volume: 11
Issue: 4
Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Individual Beliefs and Behaviors](#)

Sex Differences in Cognitive Abilities

Resource Title: Sex Differences in Cognitive Abilities

Description/Annotation: This 440-page book provides a complete reporting of the facts in sex differences in cognition. The book is straightforward presentation of material. Can serve as a text or reference in many courses.

Author Last Name: Halpern

Author First Name: Diane F.

Publisher: Lawrence Erlbaum

Publication Date: 2000

Page Numbers: 1-440

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Individual Beliefs and Behaviors](#)

Sex Differences in Cognitive Abilities

Resource Title: Sex Differences in Cognitive Abilities

Description/Annotation: Research on gender, brain and behavior. This text will be suitable for courses on gender studies, individual differences, and cognition.

Author Last Name: Halpern

Author First Name: Diane F.

Publisher: Lawrence Erlbaum Associates, Inc.

Publisher Location: Philadelphia, PA

Publication Date: 2000
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Individual Beliefs and Behaviors](#) »
[Cognition](#) [Individual Beliefs and Behaviors](#)

Sex Differences in Intrinsic Aptitude for Mathematics and Science?

Resource Title: Sex Differences in Intrinsic Aptitude for Mathematics and Science?

Description/Annotation: This 9-page article evaluates three claims of sex-related cognitive differences that have been used to explain women's underrepresentation in higher level careers in mathematics and science. The first claim relates to men's early predisposition to learning about mechanical systems, the second is males' higher spatial and numerical abilities, and the third relates to males' greater abilities in cognitive variability. Ultimately, research in cognitive development fails to support any of these claims as valid reasons for the underrepresentation of women in mathematics and science.

Author Last Name: Spelke
Author First Name: Elizabeth S.
Publication Date: 2005
Page Numbers: 950-958
Publication Title: American Psychologist
Volume: 60
Issue: 9
Source: Harvard University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Sex Differences in Mental Test Scores, Variability, and Numbers of High-scoring Individuals

Resource Title:	Sex Differences in Mental Test Scores, Variability, and Numbers of High-scoring Individuals
Description/Annotation:	Article discussing the analysis of mental test scores from six studies using national probability samples. Findings include variance in male test scores and an overall higher score for males than for females.
Author Last Name:	Hedges
Author First Name:	Larry V.
Additional Author:	Nowell
:	Amy
Publisher:	American Association for the Advancement of Science (AAAS)
Publisher Location:	Washington, D.C.
Publication Date:	1995, Jul
Page Numbers:	41-45
Publication Title:	Science
Volume:	269
Issue:	5220
Source:	AAAS
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Sex Differences in SAT Scores

Resource Title:	Sex Differences in SAT Scores
Description/Annotation:	This 27-page article reports on a study of the association between background/demographic differences and gender differences in achievement on the SAT college entrance exam. According to the

authors, the study revealed that background differences between men and women were significantly related to gender differences in achievement on the verbal and mathematical portions of the SAT.

Author Last Name: Burton
Author First Name: Nancy W.
Additional Author: Lewis
:
Charles
Additional Author: Robertson
:
Nancy
Publisher: College Entrance Examination Board
Publisher Location: New York
Publication Date: 1988
Page Numbers: 27
Source: College Entrance Examination Board
Source Type: Full Text, Abstract

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Sex Differences in Sickness Absence in Relation to Parental Status

Resource Title: Sex Differences in Sickness Absence in Relation to Parental Status

Description/Annotation: Community medicine researchers analyzed the sex differences of parents taking sick-leave in Sweden certified by one physician during the years 1985-1987. Women with children had the highest rate of absence due to sickness, the result of inequality with regards to parental responsibility. Useful for faculty and returning students and WERP directors creating programs for non-traditional students.

Author Last Name: Akerlind
Author First Name: Ingemar

Additional Author: Alexanderson
:
Additional Author: Kristina Hensing
:
Additional Author: Gunnel Leijon
:
Additional Author: Margareta Bjurulf
:
Additional Author: Per
Publication Date: 1996
Page Numbers: 27-35
Publication Title: Scandinavian Journal of Public Health
Volume: 24
Issue: 1
Source: Sage
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Sex differences in spatial cognition, computational fluency, and arithmetical reasoning

Resource Title: Sex differences in spatial cognition, computational fluency, and arithmetical reasoning

Description/Annotation: This report describes an experiment in which 113 male and 123 female undergraduates were given tests for IQ, arithmetical computation, arithmetic reasoning and spatial cognition. No differences were found in IQ, but males scores significantly higher in other tests. Structural Equation Models were developed and presented.

Author Last Name: Geary

Author First Name: David C.

Additional Author: Saults

: Scott J.
Additional Author: Liu
: Fan
Additional Author: Hoard
: Mary K.
Publication Date: 2000
Page Numbers: 337-353
Publication Title: Journal of Experimental Child Psychology
Source: University of Missouri
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Individual Beliefs and Behaviors](#)

Sex, Class, and Physical Science Educational Attainment: Portions to to Achievement Versus Recruitment

Resource Title:	Sex, Class, and Physical Science Educational Attainment: Portions to to Achievement Versus Recruitment
Description/Annotation:	This article discusses a study in which nationally representative data from the National Education Longitudinal Study are used to investigate why males and children of parents with advanced degrees are more highly represented among physical science bachelor's degrees and graduate students. Additionally, the results from logistic regressions predicting the attainment of a bachelor's degree in physical science as well as the pursuit of a graduate degree in physical science are presented.
Author Last Name:	Simon
Author First Name:	Richard M.
Additional Author:	Farkas
:	George
Publication Date:	2008
Page Numbers:	269-300
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	14
Issue:	3
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational](#)
[Factors](#) » [Retention](#)

Sexism, Hostility toward Women, and Endorsement of Beauty Ideals and Practices: Are Beauty Ideals Associated with Oppressive Beliefs?

Resource Title: Sexism, Hostility toward Women, and Endorsement of Beauty Ideals and Practices: Are Beauty Ideals Associated with Oppressive Beliefs?

Description/Annotation: This 9-page article reports on an investigation of the relationship between the endorsement of beauty ideals and the measures of sexism and hostility towards women. The study found correlation between traditional endorsement of Western beauty ideals and traditional and hostile sexism and hostility towards women.

Author Last Name: Forbes

Author First Name: Gordon

Additional Author: Collinsworth

: Linda

Additional Author: Jobe

: Rebecca

Additional Author: Braun

: Kristen

Additional Author: Wise

: Leslie

Publisher: Springer Netherlands

Publication Date: 2007, Mar

Page Numbers: 265-273

Publication Title: Sex Roles

Volume: 56

Issue: 5-6

Source: SpringerLink

Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Cultural Influences](#) » [Stereotype Threat](#)

Sexual Selection and Sex Differences in Mathematical Abilities

Resource Title: Sexual Selection and Sex Differences in Mathematical Abilities

Description/Annotation: This study shows that there are no sex differences in biologically primary mathematical abilities, or those abilities that appear pan-culturally, in nonhuman primates. Sex differences in biologically secondary mathematical domains - those which emerge in school - were found in all industrialized countries. Males are found to outperform females in mathematical word problems and geometry. The report presents a model which integrates biological influences with sociocultural influences on the sex difference in mathematical performance.

Author Last Name: Geary

Author First Name: David C.

Publication Date: 1996

Page Numbers: 229-284

Publication Title: Behavioral and Brain Sciences

Volume: 19

Issue: 2

Source: Cambridge University

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Sheryl WuDunn: Our Century's Greatest Injustice

Resource Title: Sheryl WuDunn: Our Century's Greatest Injustice

Description/Annotation: Sheryl WuDunn, author of *Half the Sky*, addresses TED audience on issues and implications of global gender inequities. Sheryl issues a call to action for those who "won the lottery of life" to support girls and women across the world transfer "out of the vicious cycle and into the virtuous cycle".

Author Last Name: WuDunn

Author First Name: Sheryl

Publisher: TEDGlobal 2010

Publication Date: 2010, Jul

Source: TED
Source Type: Video

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Stereotype Threat Career Factors » Stereotype Threat

Similarities and Differences in Women's and Men's Publication and Citation Record Among Academic Psychologists

Resource Title: Similarities and Differences in Women's and Men's Publication and Citation Record Among Academic Psychologists

Description/Annotation: This study examined publication and citation rates for women and men in Italian academic psychology. Italy was chosen as a case-study country to expand the scope of scientific productivity research beyond Anglophone cultural and institutional contexts. Researchers examined Google Scholar publication rates and three citation indices for the 250 female and 261 male university psychology professors listed in the Italian Ministry of Education, University and Research website. Overall, rank was the best predictor of publications and citations, with full professors being the most published and cited. At the same time, even when rank was considered, men had higher publication productivity and impact than women.

Author Last Name: D'Amico

Author First Name: Rita

Additional Author: Canetto
: Silvia Sara

Publication Date: 2010

Page Numbers: 343-361

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Single Gender Programs: Do They Make a Difference?

Resource Title: Single Gender Programs: Do They Make a Difference?

Description/Annotation: The Center for Pre-college Programs at the New Jersey Institute of Technology (NJIT) has offered a "girls-only" Women in Engineering and Technology program (FEMME) since 1981. To test the hypothesis that the positive results of FEMME may be due to good educational methodologies, rather than due to the single-gender environment, NJIT developed the pre-engineering program (PrEP). The PrEP and one of the FEMME programs are identical in every way, except for the inclusion of male students in PrEP. This paper summarizes the current research on single-gender education in STEM and the results of this study. Funded by NSF GSE under award #9450592.

Author Last Name: Koppel

Author First Name: N.B.

Additional Author: Cano

: R.M.

Additional Author: Heyman

: S.B.

Additional Author: Kimmel

: H.

Publication Date: 2003

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

Sketching a Path to Better Education

Resource Title:	Sketching a Path to Better Education
Description/Annotation:	Researchers say that spatial ability, which can be enhanced by sketching at young ages, is a great predictor of whether a student will excel in the STEM disciplines.
Author Last Name:	Heid
Author First Name:	Markham
Publisher:	Medill School, Northwestern University
Publisher Location:	Chicago, IL
Publication Date:	2009, Jul 16
Publication Title:	Medill Reports
Source:	Northwestern University
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical Categories: Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Sloan Career Cornerstone Center (SCCC)

Resource Title:	Sloan Career Cornerstone Center (SCCC)
Description/Annotation:	The Sloan Career Cornerstone Center is a non-profit resource center for those exploring career paths in science, technology, engineering, mathematics, and medicine. The extensive site explores over 185 degree fields and offers detailed education requirements, salary and employment data, precollege ideas, and career planning resources.
Web site Link:	Link to Resource
More:	The SCCC website features a "Degree Quick Jump" option which offers resources on earnings, employers, and university offering degrees in detailed STEM, computing, and healthcare fields. In addition, the preparation areas provide insight into the courses a student might take, and the importance of internships or other work experiences.

Resources: The SCCC website offers a wealth of career planning resources, including:

- State portals
- Industry options
- Precollege ideas
- University choice
- Diversity & women
- Podcasts
- Newsletters
- Meet Professionals
- A-Z Site Search
- Downloadable list of employers
- Downloadable list of degree-granting universities
- Links to professional associations
- Salary data

Site Access Details: This is a publicly accessible site.

Partners and Funding: SCCC is sponsored by the Alfred P. Sloan Foundation and Texas Instruments. An Advisory Committee and Ambassadors provide guidance and support for content and future expansion.

Contact E-mail: sccc@careercornerstone.org

Last Update Date: june 11, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors](#)

So Few Women Leaders: It's no longer a pipeline problem, so what are the root causes?

Resource Title: So Few Women Leaders: It's no longer a pipeline problem, so what are the root causes?

Description/Annotation:

Author Last Name: Dominici

Author First Name: Francesca

Additional Author: Fried

: Linda P.

Additional Author: Zeger

: Scott L.

Publisher: American Association of University Professors

Publisher Location: Washington, D.C.

Publication Date: July-August 2009

Publication Title: Academe

So What Do We Do with the Poor, Non-White Female? Issues of Gender, Race, and Social Class in Mathematics and Equity

Resource Title: So What Do We Do with the Poor, Non-White Female? Issues of Gender, Race, and Social Class in Mathematics and Equity

Description/Annotation: This 18-page article discusses the issue of race and gender assumptions in the study of equity in mathematics, particularly the unspoken assumption in research that "all women are white, all Blacks are men." The article goes on to summarize some programs that are aimed at increasing equity in mathematics.

Author Last Name: Campbell

Author First Name: Patricia B.

Publication Date: 1989

Page Numbers: 95-112

Publication Title: Peabody Journal of Education

Volume: 66

Issue: 2

Source: JSTOR

Source Type: Abstract, Available for Purchase

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Social Network Structure and Co-Authored Papers Between Men and Women Engineers

Resource Title: Social Network Structure and Co-Authored Papers Between Men and Women Engineers

Description/Annotation: This paper examines the differences between how men and women engineers interact by performing a social network analysis of the co-authorship of conference papers. This research performed the analysis on the co-authored papers from the American Society for Engineering Educators annual conferences from two divisions, Biological and Agricultural Engineering and Liberal Education. The analysis tracked information about the authors, with whom they wrote and if those connections are male-male, male-female, or female-female. Then the data was analyzed for the degree, betweenness, and closeness, in a networking software program.

Author Last Name: Schreuders
Author First Name: P.
Additional Author: Driggs
:
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Cultural Influences Individual Beliefs and Behaviors](#) » [Family & Peers Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Career Factors](#) » [Professional Development](#)

Social-Organizational Characteristics of Work and Publication Productivity Among Academic Scientists in Doctoral Granting Departments

Resource Title: Social-Organizational Characteristics of Work and Publication Productivity Among Academic Scientists in Doctoral Granting Departments

Description/Annotation: This article advances understandings of the ways in which key elements of the social-organizational characteristics of work and publication productivity operate among academic scientists in doctoral-granting departments. Findings point to new formulations about the importance of a particular team

composition and of collaboration, work practices, and departmental work climates.

Author Last Name: Fox
Author First Name: Mary Frank
Additional Author: Mohapatra
:
Sushanta
Publication Date: 2007, Sept/Oct
Page Numbers: 542-571
Publication Title: The Journal of Higher Education
Volume: 78
Issue: 5
Source: JSTOR
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Society Cannot Continue to Exclude Women From the Fields of Science and Mathematics

Resource Title: Society Cannot Continue to Exclude Women From the Fields of Science and Mathematics

Description/Annotation: This article proposes a series of recommendations to facilitate a change in the attitude toward society's perceptions of females participating in the sciences.

Author Last Name: Kennedy
Author First Name: Helen L.
Additional Author: Parks
:
Joe
Publication Date: 2000
Page Numbers: 529
Publication Title: Education

Volume: 120
Issue: 3
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered](#)
[Occupations & Study Choices](#)

Society for Neuroscience

Resource Title: Society for Neuroscience

Description/Annotation: The Society for Neuroscience (SfN) is a nonprofit membership organization of scientists and physicians who study the brain and nervous system.

Web site Link: [Link to Resource](#)

More: Since its inception in 1969, the Society has grown from 500 members to over 40,000. Today, SfN is the world's largest organization of scientists and physicians devoted to advancing understanding of the brain and nervous system.

Resources:

- Programs to promote [women in neuroscience](#) are managed by the Professional Development Committee (PDC) and its Women in Neuroscience Subcommittee (WINS).
- Programs to promote [diversity in neuroscience](#) are managed by the Professional Development Committee and its Diversity in Neuroscience Subcommittee (DINS).
- The IWiN three-year NSF ADVANCE/PAID project, "Department Chair Training to Increase Women in Neuroscience (IWiN)," will include five regional workshops targeted to benefit more than 30 institutions across the United States. The IWiN workshops provide concrete strategies focusing on recruitment, advancement, and creating a favorable work climate for female faculty and faculty from diverse backgrounds in neuroscience and neuroscience-related departments and programs.

Site Access Details: The site is publicly accessible but also includes members-only resources.

Partners and Funding: The Society for Neuroscience (SfN) is a nonprofit membership organization.

Contact E-mail: info@sfn.org

Last Update Date: June 15, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Society of American Military Engineers (SAME)

Resource Title: Society of American Military Engineers (SAME)

Description/Annotation: The Society of American Military Engineers (SAME) is the premier professional military engineering association in the United States. SAME facilitates interaction between the public and private sectors to enhance engineering support to national security through conferences, workshops, symposiums, and professional development and networking opportunities.

Web site Link: [Link to Resource](#)

More: SAME's membership today comprises more than 20,000 leaders.

Resources: The SAME website contains information for engineering professionals, including:

- [The Military Engineer Magazine](#)
- [Bricks and Clicks](#) - interactive SAME blog
- Engineering events
- SAME Webinars

Site Access Details: This is a publicly accessible site.

Partners and Funding: SAME's members represent the uniformed military services as well as numerous government agencies, nonprofit associations, academic institutions and private-sector firms.

Contact Name: Robert D. Wolff

Contact E-mail: rwolff@same.org

Last Update Date: July 27, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Government Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Society of Women Engineers (SWE)

Resource Title:	Society of Women Engineers (SWE)
Description/Annotation:	The Society of Women Engineers (SWE) is a not-for-profit educational and service organization that empowers women to succeed and advance in the field of engineering, and to be recognized for their life-changing contributions as engineers and leaders.
Web site Link:	Link to Resource
Resources:	Resources include: <ul style="list-style-type: none">• Career Center• Annual Conference• SWE Quarterly Magazine with an online reader that simulates turning pages• Collegiate Programs including scholarships, awards, job and internship search resources, and competitions• K-12 Outreach Programs including AWE, Wow! That's Engineering, and SASS-E Girlz Program
Site Access Details:	The site has publicly accessible areas as well as a members-only community area.
Partners and Funding:	SWE is a membership-based organization and receives corporate sponsorships.
Contact E-mail:	hq@swe.org
Last Update Date:	January 7, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Society of Women Engineers General Position Statement on Science, Technology, Engineering, and Mathematics (STEM) Education and the Need for a U.S. Technologically-Literate Workforce

Resource Title:	Society of Women Engineers General Position Statement on Science, Technology, Engineering, and Mathematics (STEM) Education and the Need for a U.S. Technologically-Literate Workforce
Description/Annotation:	This 5-page document is an educational position statement of the Society of Women Engineers calling for a renewed focus on

training and recruiting the future's technological workforce, especially women and ethnic minorities (Latinos, African Americans). Includes recommendations for improving STEM education, expanding the STEM pipeline to include underrepresented groups, and making the U.S. attractive to researchers and students, both nationally and internationally.

Author Last Name: SWE
Publisher: Society of Women Engineers
Publication Date: 2006
Page Numbers: 1-5
Source: SWE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Sociological Factors Influencing the Organizational Justice Perceptions of Women in Information Technology

Resource Title: Sociological Factors Influencing the Organizational Justice Perceptions of Women in Information Technology

Description/Annotation: This article discusses possible sociological factors influencing the number of women entering a career in information technology and their advancements to management positions. The relationship of these variables with perceptions of organizational justice in career advancement is considered. Members of Systems, an on-line forum for women in technology, were surveyed and the results are presented.

Author Last Name: Parzinger
Author First Name: Monica J.
Additional Author: Lemons
: Mary A.
Publication Date: 2001
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7
Issue: 1
Source: Begell House
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Sociologists for Women in Society (SWS)

Resource Title: Sociologists for Women in Society (SWS)

Description/Annotation: Sociologists for Women in Society (SWS) was founded in 1969 and works to improve women's lives through advancing and supporting feminist sociological research, activism and scholars. The SWS website provides free access to the official SWS newsletter, Network News, as well as Fact Sheets aimed to aid teachers and others who are working for social justice. Members are also offered access to the official publication of SWS, Gender & Society, which is consistently ranked as a top journal in Women's Studies and Sociology.

Web site Link: [Link to Resource](#)

More: SWS is a nonprofit, scientific and educational organization with more than 1,000 members in the United States and overseas, including a diverse collection of scholars, researchers, authors and professors.

Resources: The wealth of information on the SWS website is broken down into the following areas:

- About
- Members
- Issues
- Media
- Awards
- Conferences
- Resources

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: SWS is a non-profit membership organization.
Contact Name: Jessica Holden Sherwood
Contact E-mail: swseo@socwomen.org
Last Update Date: July 23, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Solutions to Recruit Technical Women

Resource Title: Solutions to Recruit Technical Women

Description/Annotation: This 49-page report from the Anita Borg Institute for Women & Technology (ABI) is Part 1 in a series of reports focused on solutions companies can employ to improve the recruitment, retention, and advancement of technical women. Part 1 focuses on recruitment and examines the state of research on recruitment practices and how such practices impact women. The report also features company-specific practices that address the barriers identified by research and either show promise or are working to recruit technical women in many organizations. The full report is available in PDF format.

Author Last Name: Simard

Author First Name: Caroline

Additional Author: Gammal
: Denise L.

Publisher: ABI

Publisher Location: Palo Alto, CA

Publication Date: 2012

Page Numbers: 1-49

Publication Title: Anita Borg Institute Solutions Series

Source: ABI

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Hiring Practices](#) [Career Factors » Retention](#)

Some Things Never Change: Gender Segregation in Higher Education across Eight Nations and Three Decades

Resource Title:	Some Things Never Change: Gender Segregation in Higher Education across Eight Nations and Three Decades
Description/Annotation:	This article from the Sociology of Education Journal examines the overall strength, the qualitative pattern, and the evolution over time of gender segregation in higher education across eight European countries. According to the article, the degree of gender imbalance is highly variable within scientific fields as well as within humanistic fields. This article develops a topological model which can be used to show the noticeable degree of cross-national stability in both the qualitative pattern and the overall strength of gender segregation. Results indicate that gender segregation has stabilized to an almost identical level and displays a similar qualitative pattern in several countries.
Author Last Name:	Barone
Author First Name:	Carlo
Publication Date:	2011
Page Numbers:	157-176
Publication Title:	Sociology of Education
Volume:	84
Issue:	2
Source:	SAGE Journals
Source Type:	Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#)

Sowing the Seed of Diversity: A Call to Diversify Physics through Small Social Interactions

Resource Title:	Sowing the Seed of Diversity: A Call to Diversify Physics through Small Social Interactions
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Description/Annotation: Three page article describing that subtle messages that convey exclusion undermine efforts to recruit and retain women and minorities. Yet, small, incremental attempts at social inclusion can have a significant impact on increasing the number of minorities in physics.

Author Last Name: Ong

Author First Name: Maria (Mia)

Publisher: TERC

Publication Date: 2007/2008, Winter

Page Numbers: 4-6

Publication Title: Hands On!

Volume: 30

Issue: 2

Source: TERC

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Negotiation Skills](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Spaces for Change: Gender and Technology Access in Collaborative Software Design

Resource Title: Spaces for Change: Gender and Technology Access in Collaborative Software Design

Description/Annotation: The current study examines a three-month software design activity in which mixed teams of girls and boys (10–12 year olds) designed and implemented multimedia astronomy resources for younger students. Researchers assessed gender differences in students' levels of access to technology and how these participation patterns changed throughout the project duration.

Author Last Name: Ching

Author First Name: Cynthia Carter

Additional Author: Kafai

: Yasmin B.

Additional Author: Marshall
:
Sue K.
Publication Date: 2000, Mar
Page Numbers: 67-78
Publication Title: Journal of Science Education and Technology
Volume: 9
Issue: 1
Source: Journal of Science Education and Technology
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational](#)
[Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Spatial Working Memory and Gender Differences in Science

Resource Title: Spatial Working Memory and Gender Differences in Science
Description/Annotation: The present study measured verbal and spatial working memory for 15 males and 48 females. Males were found to have both a larger verbal memory and a larger spatial memory. Participants then read texts that either presented the information in both the text and diagram, or in only the text or only the diagram. Recall and question answering data found that males comprehended the material better than females. It was also found that information from the text was remembered better than information from the diagram. The results were explained in terms of working memory span and comprehension.
Author Last Name: Geiger
Author First Name: John F.
Additional Author: Litwiller
:
Robert M.
Publication Date: 2005, Mar
Page Numbers: 49-57

Publication Title: Journal of Instructional Psychology
Volume: 32
Issue: 1
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Spatial-Mechanical Reasoning Skills Versus Mathematics Self-Confidence as Mediators of Gender Differences on Mathematics Subtests Using Cross-National Gender-Based Items

Resource Title: Spatial-Mechanical Reasoning Skills Versus Mathematics Self-Confidence as Mediators of Gender Differences on Mathematics Subtests Using Cross-National Gender-Based Items

Description/Annotation: This 30-page article contains research in which 187 eighth-graders were tested on spatial-mechanical skills. While males performed better, there were no direct causes. Indirect causes were identified as spatial-mechanical skills and mathematics self-confidence.

Author Last Name: Casey
Author First Name: Beth
Additional Author: Nuttall
: Ronald
Additional Author: Pezaris
: Elizabeth
Publisher: National Council of Teachers of Mathematics
Publisher Location: Reston, VA
Publication Date: 2001, Jan
Page Numbers: 28-57
Publication Title: Journal for Research in Mathematics Education

Volume: 32
Issue: 1
Source: JSTOR
Source Type: Partial text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

SPAWAR Shares Science, Engineering with Leaders of Tomorrow

Resource Title: SPAWAR Shares Science, Engineering with Leaders of Tomorrow

Description/Annotation: Brief article describes a special Girls Day Out event that the U.S. Navy participated in at the University of California at San Diego. The purpose of the event was to expose middle school girls to career paths in science and engineering. For K-12 teachers and parents.

Author Last Name: Montez

Author First Name: Marie

Publisher: United States Navy

Publisher Location: San Diego, CA

Publication Date: 2009

Source: U.S. Navy

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Speaking Out on Gender: Reflections on Women's Advancement in the STEM Disciplines

Resource Title: Speaking Out on Gender: Reflections on Women's Advancement in the STEM Disciplines

Description/Annotation: Faculty at Cal Poly Pomona initiated a campus-wide study to assess the experiences of women in the STEM disciplines and to explore what factors were perceived as critical to advancement by successful women on campus. Focus groups with female faculty and administrators at various stages in their career were conducted to address questions of retention, tenure, promotion, and overall job satisfaction. Workload, work-family conflict, and climate emerge as key factors in faculty satisfaction and attributions of success.

Author Last Name: Wachs

Author First Name: Faye Linda

Additional Author: Nemiro

: Jill

Publication Date: 2007

Page Numbers: 77-94

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 13

Issue: 1

Source: Research Gate

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#) [Career](#)
[Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Special gender studies for engineering?

Resource Title: Special gender studies for engineering?

Description/Annotation: This paper discusses the new approach of “Gender Studies in Engineering” to further develop engineering education. In particular, the author believes that engineering education needs to focus on different student groups, especially women.

Author Last Name: Ihssen

Author First Name: Susanne
Publication Date: 2005, Dec
Page Numbers: 487-494
Publication Title: European Journal of Engineering Education
Volume: 30
Issue: 4
Source: Taylor and Francis
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Special session - gender influences on the role of persuasion in leadership

Resource Title: Special session - gender influences on the role of persuasion in leadership

Description/Annotation: This session from the Frontiers in Education Conference enables the participant to develop a conceptual framework, using socio-psychological and organizational principles for understanding the interaction between people and their communication in academic work. Emphasis is placed on the role of gender and the social forces that influence persuasion in the context of leadership. Parallels are drawn from psychology theory to academic practice by linking elements of persuasive communication to specific situations. Topics covered are designed to demonstrate the relationship among the gender of the individual, group behavior, emerging leadership and the organizational decision-making process. A preliminary presentation looks at gender and communication using conceptual frameworks from the psychology of women, work place role, and concepts of leadership. The scope of this interactive presentation includes a qualitative search for understanding gender and persuasion at work and potential use for that understanding to improve engineering education.

Author Last Name: Karanian

Author First Name: B.A.

Additional Author: Kremer
:
Publication Date: 2005
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Career Factors Cultural Influences Individual Beliefs and Behaviors Career Factors » Leadership & Management Individual Beliefs and Behaviors » Negotiation Skills Career Factors » Professional Development](#)

Special session - new engineering stories: How feminist thinking can impact engineering ethics and practice

Resource Title: Special session - new engineering stories: How feminist thinking can impact engineering ethics and practice

Description/Annotation: The goal of this special session from the Frontiers in Education Conference is to examine the way engineers frame stories about engineers and engineering, and to ask: do we need to embrace new stories? Authors explore traditional stories about engineers and engineering ethics and ask, how might these stories, and the kind of engineering practice and education they inspire, change if framed from a feminist perspective? The outcomes of this session are to build a greater community interested in social engagement, engineering ethics, and feminist methodologies as they apply to engineering.

Author Last Name: Tucker
Author First Name: J.
Additional Author: Pawley
:
Additional Author: Riley
:
Additional Author: Catalano

: G.
Publication Date: 2008
Page Numbers: F3J-1 - F3J-3
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Special session — What should a course reader on gender and engineering include? An unconference discussion

Resource Title: Special session — What should a course reader on gender and engineering include? An unconference discussion

Description/Annotation: This paper discusses a Frontiers in Education Conference session oriented around proposing a textbook that comprehensively explores the topic of gender and engineering. Through the organization of an “unconference” session discussion include a opportunity to discuss the audience and scope of such a proposed book, as well as exploring the advantages and challenges of some of the existing texts on the market. The authors of this special session commit to turning the results of this discussion into a book prospectus to be distributed to appropriate publishers who might be interested in supporting such a book.

Author Last Name: Pawley
Author First Name: A.L.
Additional Author: Riley
:
Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Special Session: Race and the Idea of Privilege in the Engineering Classroom

Resource Title: Special Session: Race and the Idea of Privilege in the Engineering Classroom

Description/Annotation: This session from the 2012 Frontiers in Education Conference help participants explore the idea of White Privilege within the context of engineering education. Through an interactive format, participants will learn some theory and develop some ideas for addressing White Privilege in engineering learning environments. The related idea of stereotype threat is also discussed. Funded by NSF GSE under award #0734085.

Author Last Name: Eschenbach

Author First Name: E.

Additional Author: Lord

: S.M.

Additional Author: Camacho

: M.M.

Additional Author: Cashman

: E.

Publication Date: 2012

Page Numbers: 1-2

Publication Title: Proceedings of the 2012 Frontiers in Education Conference

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Cultural Influences](#) » [Stereotype Threat](#)

Sponsoring Women to Success

Resource Title:	Sponsoring Women to Success
Description/Annotation:	This 23 page report clarifies questions regarding the influential and professional relationship known as "sponsorship". The report outlines the findings of 93 interviews performed to better understand sponsorship, its associated benefits, and how organizations can build more transparency around sponsorship. All interviewees were executives acting as sponsors or high-performing employees currently being sponsored at one of six top global organizations. The report also presents data, practices, and participant insights that provide actionable advice on how to foster sponsorship within organizations.
Author Last Name:	Foust-Cummings
Author First Name:	Heather
Additional Author:	Dinolfo
:	Sarah
Additional Author:	Kohler
:	Jennifer
Publisher:	Catalyst
Publisher Location:	New York, NY
Publication Date:	2011, Aug
Page Numbers:	1-23
Source:	Catalyst
Source Type:	Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

Spotlighting: Emergent Gender Bias in Undergraduate Engineering Education

Resource Title: **Spotlighting: Emergent Gender Bias in Undergraduate Engineering Education**

Description/Annotation: Paper introduces concept of 'spotlighting' or singling out a person as it relates to gender bias of female engineering students. Authors report three forms of spotlighting - overt sexism with an intent to harm, tacit sexism with a neutral intent and an unnamed approach of singling women out with the intent of helping them. The last form of spotlighting is actually the cause of most gender-bias difficulties as reported by the authors. Paper includes suggestions to WIE programs to reduce negative affects of spotlighting.

Author Last Name: McLoughlin

Author First Name: Lisa A.

Publication Date: 2005, Oct

Page Numbers: 373-381

Publication Title: Journal of Engineering Education

Source: ASEE

Database Name: Posted with permission

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Standardized Tests and Access to American Universities

Resource Title: **Standardized Tests and Access to American Universities**

Description/Annotation: This 12-page paper is a transcript of a presentation by the author about the limitations and weaknesses of standardized tests as used for college admissions. The author calls for the reformation of the admission formulas and for movement away from the SAT exam as an admission requirement in favor of a more student-centered approach at admissions with students focusing more on subject mastery and less on entrance exam preparation.

Author Last Name: Atkinson

Author First Name: Richard

Publisher: American Council on Education

Publisher Location: Washington, DC

Publication Date: 2001

Page Numbers: 12
Source: Bepress
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Standing our Ground: A Guidebook for STEM Educators in the Post-Michigan Era

Resource Title: Standing our Ground: A Guidebook for STEM Educators in the Post-Michigan Era

Description/Annotation: A guidebook for universities seeking to work within affirmative action laws to increase minorities and women into STEM fields. Provides practical, not legal, advice; strategies from other institutions; and Supreme Court opinions to assist programs and university leadership in continuing their quest for leveling the playing field for minorities and women, particularly in STEM fields.

Author Last Name: Malcom

Author First Name: Shirley M.

Additional Author: Chubin
: Daryl E.

Additional Author: Jesse
: Jolene K.

Publisher: Center for Advancing Science and Engineering Capacity

Publisher Location: Washington, D.C.

Publication Date: 2004

Page Numbers: 1-94

Source: AAAS

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Educational Factors](#) » [Retention](#)

Stanford Voice & Influence Webinar Series: Creating a Level Playing Field

Resource Title:	Stanford Voice & Influence Webinar Series: Creating a Level Playing Field
Description/Annotation:	This professional development training video features Stanford Professor Shelley Correll explaining how errors in judgment and evaluation contribute to a gap in opportunities for women. Correll explains how to create solutions that scrutinize the ways individuals and organizations make decisions about people and relationships in order to reduce errors. The resource also includes a discussion guide available in PDF format.
Author Last Name:	Correll
Author First Name:	Shelley
Additional Author:	Michelle R. Clayman Institute for Gender Research
Publisher:	Stanford University
Publisher Location:	Stanford, CA
Publication Date:	2012
Source:	Stanford University
Source Type:	Video and PDF Full Text

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Webinars: WEPAN](#) [Professional Development Series](#)

Stanford Voice & Influence Webinar Series: Negotiation

Resource Title:	Stanford Voice & Influence Webinar Series: Negotiation
Description/Annotation:	This professional development training video features Stanford Business Professor Margaret A. Neale who clarifies the gendered expectations women face and offers solutions for success. The video includes material which will help you negotiate and advise others on ways to achieve more of what you (and they) want. The resource also includes a discussion guide available in PDF format.
Author Last Name:	Neale

Author First Name: Margaret A.
Additional Author: Michelle R. Clayman Institute for Gender Research
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2012
Source: Stanford University
Source Type: Video and PDF Full Text

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » Negotiation Skills](#) Webinars: [WEPAN Professional Development Series](#)

Stanford Voice & Influence Webinar Series: Power & Influence

Resource Title: Stanford Voice & Influence Webinar Series: Power & Influence
Description/Annotation: This professional development training video features Stanford Business Professor Deborah Gruenfeld introducing the body languages of authority and being approachable. The video also shares leading social science research on the ways in which body language affects your psychology, in addition to influencing how others perceive you. The resource also includes a discussion guide available in PDF format.

Author Last Name: Gruenfeld
Author First Name: Deborah
Additional Author: Michelle R. Clayman Institute for Gender Research
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2012
Source: Stanford University
Source Type: Video and PDF Full Text

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Leadership & Management Career Factors » Professional Development Individual Beliefs and Behaviors » Self-perception Webinars: WEPAN Professional Development Series

Stanford Voice & Influence Webinar Series: Team Dynamics

Resource Title:	Stanford Voice & Influence Webinar Series: Team Dynamics
Description/Annotation:	This professional development training video documents the dynamics that undermine team performance and shares the ways that you can overcome the barriers to success both as a team leader and member. The resource also includes a discussion guide available in PDF format.
Author Last Name:	Hunt
Author First Name:	Thomas
Additional Author:	Michelle R. Clayman Institute for Gender Research
Publisher:	Stanford University
Publisher Location:	Stanford, CA
Publication Date:	2012
Source:	Stanford University
Source Type:	Video and PDF Full Text

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Career Factors » Professional Development Webinars: WEPAN Professional Development Series

Stanford Voice & Influence Webinar Series: The Clayman Institute for Gender Research

Resource Title:	Stanford Voice & Influence Webinar Series: The Clayman Institute for Gender Research
Description/Annotation:	The Voice & Influence program from the Michelle R. Clayman Institute for Gender Research features professional development training videos to empower women and men to effectively create organizations where all people can thrive. The online curriculum features education modules with faculty from leading universities.
Web site Link:	Link to Resource

More: Each education module provides a MindShift, or an essential change of perspective to allow people to be creative in using and applying the material, along with one tangible action people can take in their own lives.

Resources: The Voice & Influence webpage offers videos, discussion guides, and resources related to each education module, such as:

- [Creating a Level Playing Field](#) - Explains how errors in judgement and evaluation contribute to a gap in opportunities for women
- [Power & Influence](#) - Discusses factors used to determine your competence
- [Negotiation](#)
- [Harnessing the Power of Story](#)
- [Team Dynamics](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Voice & Influence program is sponsored by Stanford University's Clayman Institute for Gender Research.

Contact E-mail: Gender-email@stanford.edu

Last Update Date: August 4, 2013

Resource Type Categories: [Webinar/Video Website/Portal](#) Topical Categories: [Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs Webinars: WEPAN Professional Development Series](#)

Starting a Women in Engineering Program

Resource Title: Starting a Women in Engineering Program

Description/Annotation: This paper outlines the requirements for women engineering programs at colleges, including staffing, budget, assessment, and resources for best practices. The paper also addresses differences, based on the author's experiences, between women in engineering programs at a large, public institution and a small, private, technically-oriented institution. Funded by NSF GSE under award #0217110.

Author Last Name: Blaisdell

Author First Name: Stephanie

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Academic & Social Climate Educational Factors » Curriculum Educational Factors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder

Statement of the American Sociological Association Council on the Causes of Gender Differences in Science and Math Career Achievement: Harvard's Lawrence Summers and the Ensuing Public Debate

Resource Title: Statement of the American Sociological Association Council on the Causes of Gender Differences in Science and Math Career Achievement: Harvard's Lawrence Summers and the Ensuing Public Debate

Description/Annotation: ASA response to former Harvard University President Summers' statement that innate differences between the sexes might explain women's poor representation in science and engineering. The ASA statement draws attention to the substantial research evidence that women, like men, succeed in science given equitable opportunities and supportive environments. Useful as resource faculty and educators.

Author Last Name: ASA
Publisher: ASA
Publication Date: 2005
Source: American Sociological Association (ASA)
Source Type: Full text

Resource Type Categories: Articles/Reports » Web Resources Topical Categories: Cultural Influences Cultural Influences » Gender Diversity Cultural Influences » Gendered Occupations & Study Choices

Statement on Principles of Family Responsibilities and Work

Resource Title:	Statement on Principles of Family Responsibilities and Work
Description/Annotation:	Policy statement of the American Association of University Professors (AAUP) adopted in November 2001. AAUP recommendations center on equity and policies that address work-life challenges for faculty including family leaves, modified teaching schedules, "stopping the tenure clock," and institutional assistance for family responsibilities. Useful for Faculty.
Author Last Name:	AAUP
Publication Date:	2006, Oct 26
Page Numbers:	219-226
Publication Title:	AAUP's Policy Documents and Reports (Redbook)
Volume:	10
Source:	AAUP
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Statistics Anxiety and Science Attitudes: Age, Gender, and Ethnicity Factors

Resource Title:	Statistics Anxiety and Science Attitudes: Age, Gender, and Ethnicity Factors
Description/Annotation:	We examined student characteristics, statistics anxiety and attitudes toward science among 104 undergraduates. Younger students were more negative regarding the implications of science and the enjoyment they perceived in learning science. No significant gender differences were found and Latinos/Hispanics, Caucasian, and other ethnic groups did not differ on statistics anxiety and attitudes toward science. However, anxiety for interpretation of statistics and taking a test and class in statistics were moderately high for these groups. These findings support the notion of the ubiquity of statistics anxiety across groups, regardless of previous experience.

Author Last Name: Bui
Author First Name: Ngoc H.
Additional Author: Alearo
:
Michelle H.
Publication Date: 2011, Sep
Page Numbers: 573
Publication Title: College Student Journal
Volume: 45
Issue: 3
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-](#)
[perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Statistics on the EMC2 Scholars' Program at RIT

Resource Title: Statistics on the EMC2 Scholars' Program at RIT

Description/Annotation: This paper details Rochester Institute of Technology's highly successful scholarship and academic support program to retain and graduate students in four academic departments: Mechanical Engineering, Mathematics, Computer Engineering and Computer Science (EMC2). The EMC2 Scholars Program is supported by a 4-year grant from the National Science Foundation's CSEMS Program and matching funds from RIT. The paper describes the processes for selection of scholars and renewal of scholarship, and includes data on departmental distribution, student demographics and retention. It describes programmatic elements that worked or did not work in retaining students in CSEMS degree programs. Successful EMC2 program elements may be deployed elsewhere to retain female and minority students.

Author Last Name: Gupta
Author First Name: S.K.
Additional Author: Hensel

: E.C.
Additional Author: Savakis
: A.
Additional Author: Tymann
: P.
Additional Author: Narayan
: D.A.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: PSU
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Stats in Brief: Changes in Postsecondary Awards Below the Bachelor's Degree: 1997 to 2007

Resource Title: Stats in Brief: Changes in Postsecondary Awards Below the Bachelor's Degree: 1997 to 2007

Description/Annotation: Subbaccalaureate (associate's degrees and occupational certificates) awards for 1997, 2002 and 2007 by gender, award type, race/ethnicity and field of study. The source of data for this Statistics in Brief is the Integrated Postsecondary Education Data System (IPEDS) collected by the National Center for Education Statistics (NCES) at the U.S. Department of Education.

Author Last Name: Horn
Author First Name: Laura
Additional Author: Li
: Xiaojie
Additional Author: MPR Associates, Inc.
Publisher: U.S. Dept. of Education

Publication Date: 2009, Nov
Page Numbers: 22
Publication Title: 2010-167
Source: NCES
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Staying Competitive: Patching America's Leaky Pipeline in the Sciences

Resource Title: Staying Competitive: Patching America's Leaky Pipeline in the Sciences

Description/Annotation: Report identifies reasons why women choose to not enter or to leave the tenure track at research universities and suggests actions for both universities and U.S. government funding agencies in addressing root causes of leaky pipeline. Key findings include the establishment of family responsive policies, such as paid maternity and parental leave for all classes of researchers and tenure time lines that consider family pressures.

Author Last Name: Marc
Author First Name: Goulden
Additional Author: Frasch
: Karie
Additional Author: Mason
: Mary Ann
Publisher: The University of California, Berkeley, Berkeley Center on Health, Economic, & Family Security and The Center for American Progress
Publisher Location: Berkeley, CA & Washington, D.C.
Publication Date: 2009, Nov 10
Source: Center for American Progress
Source Type: Summary, Full text, Video

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Tenure Policies & Practices](#)

STEM Education (STEM Ed) Caucus

Resource Title: STEM Education (STEM Ed) Caucus

Description/Annotation: The STEM Ed Caucus seeks to strengthen STEM education at all levels (K-12, higher education and workforce) by providing a forum for Congress and the science, education and business communities to discuss challenges, problems, and solutions related to STEM education.

Web site Link: [Link to Resource](#)

More: Congressman Vern Ehlers (now retired) and Congressman Mark Urdall (now in the U.S. Senate) launched the bipartisan STEM Education Caucus for Members of Congress.

Resources: The STEM Ed Caucus website contains updates regarding STEM education and policy in the U.S., including:

- [Legislation](#)
- [STEM Ed Caucus Newsletter](#)
- [Key reports](#)
- [Recent reports](#)
- [STEM events registration](#)

Site Access Details: This is a publicly accessible site.

Partners and Funding: The STEM Ed Caucus website is maintained by the National Science Teachers Association.

Last Update Date: June 29, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#) [Educational Factors](#) » [Retention](#)

STEM Education Instrument Database

Resource Title: STEM Education Instrument Database

Description/Annotation: This database of STEM Education Instruments was compiled by the Innovative Technology Experiences for Students and Teachers (ITEST) Learning Resource Center to help researchers, evaluators, and practitioners, identify and locate instruments used to assess

learning and other related outcomes in STEM learning environments.

Web site Link: [Link to Resource](#)

More: The ITEST Learning Resource Center (LRC) offers the database as a source of potential resources for STEM education professionals. The LRC does not offer a particular endorsement, nor is the LRC responsible for the use or adaptation of the instruments contained in the database.

Resources: STEM Instruments can be searched by multiple criteria:

- Pre-and/or Post Assessment
- Instrument Type
- Target Population
- Grade Level
- Constructs
- Affective Domains
- Search Description

Site Access Details: The website is publicly accessible.

Partners and Funding: The ITEST LRC is managed by Education, Employment, & Community Programs (EEC) from the Education Development Center, Inc. (EDC), a non-profit organization. The LRC material is based upon work supported by the National Science Foundation (NSF).

Contact E-mail: DRLITEST@nsf.gov

Last Update Date: July 27, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

STEM Employment Forecasts and Distributions Among Employment Sectors

Resource Title: STEM Employment Forecasts and Distributions Among Employment Sectors

Description/Annotation: This 8-page STEM Workforce Data Project report includes estimated 2004 and projected 2014 employment data for over 100 STEM occupations or broad sets of occupations. The data support a look at how STEM professionals are distributed across major employment sectors in the economy. Resources are identified that

will yield further details about who works where in STEM jobs. The full report is available in PDF format.

Author Last Name: Commission on Professionals in Science and Technology (CPST)
Publisher: CPST
Publisher Location: Washington, DC
Publication Date: 2006
Page Numbers: 1-8
Publication Title: STEM Workforce Data Project
Volume: 7
Source: Science, Technology, Engineering and Mathematics First-Year Experience (STEM FYE)
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

STEM Equity Pipeline Project

Resource Title: STEM Equity Pipeline Project

Description/Annotation: This paper focuses on the Science Technology Engineering and Mathematics (STEM) Equity Pipeline whose focus is to broaden the commitment to gender equity in STEM education, build the capacity of the formal education community to implement research based approaches that have proven to increase the participation and completion of females, including those with disabilities, in STEM education, and institutionalize the strategies implemented by connecting the outcomes to existing accountability systems.

Author Last Name: Lufkin
Author First Name: Mimi
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 16
Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

STEM Equity Pipeline

Resource Title: STEM Equity Pipeline

Description/Annotation: The STEM Equity Pipeline project aims to increase STEM diversity at the secondary and community college levels by extending professional development services to participating state teams.

Web site Link: [Link to Resource](#)

More: This project is a collaboration between U.S. State Teams and an Extension Services Group of leading researchers and practitioners in gender equity and STEM education.

The experts consist of

- State Facilitators acting as focal points for training and technical assistance to State teams
- Content Experts providing strategy guidance to State Teams; profiles of over 20 content experts are included
- National Advisory Board contacts including names, titles, organizations, emails and their affiliated websites

The focus of professional development efforts is the Five-Step Program Improvement process.

Resources: Professional Development resources include:

- Calendar of educational webinars and access to archived webinars
- Promising practices
- Needs assessment survey
- Links to research organizations, reports or reviews
- Description for the Five-Step Program Improvement process

Other Resources include:

- Training resources for the Five-Step Program Improvement process

- Links to brochures, posters, organizations, programs, publications and reports

Site Access Details: The site has public areas, resources for State Teams and offers access to archived resources to those willing to register. Site visitors can register to participate in the project at various levels through an online form.

Partners and Funding: Managed by the National Alliance for Partnerships in Equity Education Foundation (NAPEEF), the STEM Equity Pipeline project is funded by the National Science Foundation (NSF).

Contact Name: Mimi Lufkin

Contact E-mail: nape@napequity.org

Last Update Date: May 20, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Professional Development Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

STEM Research and Modeling Network (SRMN)

Resource Title: STEM Research and Modeling Network (SRMN)

Description/Annotation: The STEM Research and Modeling Network provides a reusable education simulation model to predict the retention of students in STEM through the educational pipeline. It uses census data and standardized test scores to track the flow of students through the K-16 education system and into careers in STEM teaching or STEM industries.

Web site Link: [Link to Resource](#)

More: The simulation model enables researchers, policy-makers and educators to explore policy scenarios that can strengthen STEM education and workforce outcomes.

Resources: Site resources include:

- K16 and Higher Education Bibliographies that address understanding the issues, teacher pay, quality, supply and attracting and retaining students in STEM
- Websites and books on system dynamics
- Connect with others through a Google group for peer communication and a free newsletter

Site Access Details: The site and model are publicly accessible. You must register to download the model.

Partners and Funding: The model was gifted by Raytheon to Business-Higher Education Forum (BHEF), which is making the model available in open source to the public.

Contact Name: Chris Roe

Contact E-mail: info@bhef.com

Last Update Date: June 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Retention](#)

STEM Stories

Resource Title: STEM Stories

Description/Annotation: The STEM Stories website is a free online collection that combines multimedia resources from many sources to highlight careers in science, technology, engineering, and mathematics (STEM) through the personal stories of STEM pioneers and professionals, both past and present. It also includes updated content from the "Telling Our Stories: Women in Science" CD-ROM from McLean Media.

Web site Link: [Link to Resource](#)

More: Aimed at Grades 4 - 8, STEM Stories builds on the Content Clips system framework developed through the NSF's National Science Digital Library program.

Resources: The STEM Stories database contains two browsable databases:

- Clips - Find clips about STEM pioneers and careers. Resource clips are available as:
 - Album
 - Interactive
 - Web
 - Video
 - Sound
 - Text
 - E-Mail
- Profiles - Find biographies of past and present STEM professionals. Browse by:
 - Field
 - Topic
 - Birthdate

Site Access Details: This is a publicly accessible site.

Partners and Funding: The STEM Stories website is based upon work supported by the National Science Foundation (NSF) under Grant No HRD-0734004. The website is overseen by McLean Media and an advisory board.

Contact E-mail: stem@storyline.com

Last Update Date: July 25, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

STEM Switching: Examining Departures of Undergraduate Women in STEM Fields

Resource Title: STEM Switching: Examining Departures of Undergraduate Women in STEM Fields

Description/Annotation: This study uses longitudinal data of undergraduate students from five public land-grant universities to better understand undergraduate students persistence in and switching of majors, with particular attention given to women's participation in science, technology, engineering, and mathematics (STEM) fields. The study examines patterns of behavior of women in relation to students' initial choice of college major and major field persistence. Factors that impact major field persistence are also examined, as well as how switching majors affects students' time-to-degree.

Author Last Name: George-Jackson

Author First Name: Casey E.

Publisher: Begell House, Inc

Publication Date: 2011

Page Numbers: 149-171

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 17

Issue: 2

Source: Begell House

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Stemming the Tide: Why Women Leave Engineering

Resource Title: Stemming the Tide: Why Women Leave Engineering

Description/Annotation: Project on Women Engineers' Retention (POWER) surveyed over 3700 women with undergraduate engineering degrees from over 200 universities on factors related to their career choices related to entering and staying in the engineering workforce. Findings indicate perceptions of workplace climate prior to entering the workforce and actual experiences while in the workforce were significant factors in womens' career choices.

Author Last Name: Fouad

Author First Name: Nadya A.

Additional Author: Singh

: Romila

Publisher: University of Wisconsin-Milwaukee

Publisher Location: WI

Publication Date: 2011

Page Numbers: 64

Source: U.S. Department of Energy

Source Type: Full text

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type Categories: [Articles/Reports](#) » [Surveys](#)[Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Stereotype Threat and the Intellectual Test Performance of African Americans

Resource Title: Stereotype Threat and the Intellectual Test Performance of African Americans

Description/Annotation: A 15-page report of 4 studies that test the theory of stereotype threat and its effects within groups of Black and White college students. Study 1 tested the effect of stereotype threat on the groups of students through three different testing situations where

a shortened version of the GRE verbal test was administered, with the expressed purpose of the test varying. Study 2 tested individual's anxiety over examinations and time spent on the assessments in order to detect further effects of stereotype threat. Study 3 measured the effect of situations of stereotype threat on other personal preferences that could reflect stereotypes. Study 4 measured stereotype threat experience by changing whether the individuals being tested then asked for personal information would be required to list their race prior to testing. The results of these studies show that stereotype threat can impair Black student's performance.

Author Last Name: Steele
Author First Name: Claude M.
Additional Author: Aronson
:
Joshua
Publication Date: 1995
Page Numbers: 797-811
Publication Title: Journal of Personality and Social Psychology
Volume: 69
Issue: 5
Source: PubMed
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Stereotype Threat and Women's Math Performance

Resource Title: Stereotype Threat and Women's Math Performance
Description/Annotation: This 24-page paper that reports a study to determine the effects of stereotype threat--a process by which learners fear and, at times, conform to a negative stereotype about a group to which they belong in reaction to this fear--on women math students. Four studies were conducted to test the effects of stereotype threat among male and female undergraduate math students. Ultimately, these studies demonstrated some support for the theory of

stereotype threat and its negative effects on the performance of women in mathematics.

Author Last Name: Spencer
Author First Name: Steven J.
Additional Author: Steele
:
Claude M.
Additional Author: Quinn
:
Diane M.
Publication Date: 1999
Page Numbers: 4-28
Publication Title: Journal of Experimental Social Psychology
Volume: 35
Issue: 1
Source: LSCP
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Stereotype Threat and Women's Performance in Engineering

Resource Title: Stereotype Threat and Women's Performance in Engineering
Description/Annotation: Study to evaluate stereotype threat, or fear of being judged adversely due to a stereotype, on women's math and engineering test performance. Performance of both men and women were affected by perceptions. Authors offer practices to improve student performance such as expressing a faith in each student's success.
Author Last Name: Bell
Author First Name: Amy E.
Additional Author: Spencer
:
Steven J.

Additional Author: Iserman
:
Additional Author: Logel
:
Christine E. R.
Publication Date: 2003, Oct
Page Numbers: 307-312
Publication Title: Journal of Engineering Education
Source: WomenG
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Stereotype Threat by Matt McGlone

Resource Title: Stereotype Threat by Matt McGlone
Description/Annotation: Dr. Matt McGlone, from the University of Texas at Austin, discusses his research on stereotype threat related to students in STEM fields in a podcast series. Interviews are by Stef Paramoure of Science Alive and the content was produced and hosted by the Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching.
Author Last Name: Paramoure
Author First Name: Stef
Additional Author: McGlone
:
Matt
Publisher: Stef Paramoure
Publication Date: 2008
Source: Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching
Database Name: iTunes
Source Type: Audio podcast

Resource Type Categories: [Interviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Stereotype Threat: Causes, Effects, and Remedies

Resource Title:	Stereotype Threat: Causes, Effects, and Remedies
Description/Annotation:	Information Sheet presents an illustration of stereotype threat that might occur for Lauren, a 10th grader who is enrolled in an advanced math class but is underperforming on her examinations. This illustration is intended to show how stereotype threat might be induced, experienced, and remediated. Literature Overview reviews the empirical research on stereotype threat and discusses strategies that successfully remediate stereotype threat (i.e., de-emphasizing threatened identities, providing examples of stereotyped individuals who have succeeded within the domain).
Author Last Name:	Singletary
Author First Name:	Sarah L.
Additional Author:	Ruggs
:	Enrica N.
Additional Author:	Hebl
:	Michelle R.
Additional Author:	Davies
:	Paul G.
Publisher:	SWE-AWE, NAE-CASEE
Publication Date:	2009
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Stereotype Threat](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Stereotype Threat: Contending and Coping with Unnerving Expectations

Resource Title:	Stereotype Threat: Contending and Coping with Unnerving Expectations
Description/Annotation:	Written for the general audience, author presents research on the effects of stereotypes on expectations and performance of students. For parents, educators, and policy makers with recommendations for improving student success.
Author Last Name:	Aronson
Author First Name:	Joshua
Publisher:	Emerald Group Publishing
Publication Date:	2002
Page Numbers:	279-300
Publication Title:	Improving Academic Achievement
Source:	Google Book Search
Source Type:	Available for Sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Stereotype Threat? Male and Female Students in Advanced High School Courses

Resource Title:	Stereotype Threat? Male and Female Students in Advanced High School Courses
Description/Annotation:	This paper discusses the hypothesis that female students will be underrepresented in advanced quantitative courses. The hypothesis is tested using academic performance and enrollment data for high school students in a "Student/Parent Informed Choice" school district in North Carolina. Results show female students to be overrepresented in both advanced verbal/writing intensive and advanced quantitative courses compared to their proportion of the student body. More surprisingly, results also indicate female students to be overrepresented in advanced courses compared to their proportion of high-performing students.

Author Last Name: Corra
Author First Name: Mamadi
Page Numbers: 10
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 2
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational](#)
[Factors](#) » [Stereotype Threat on Testing](#)

Stereotypes and the fragility of human competence, motivation, and self-concept

Resource Title: Stereotypes and the fragility of human competence, motivation, and self-concept

Description/Annotation: Authors present research to dispel myths about competence, motivation, and self-concept perpetuated by stereotypes as fixed and unchangeable and then cite examples of interventions. Useful for college students, parents, educators, WIE/WEP directors.

Author Last Name: Aronson
Author First Name: Joshua
Additional Author: Steele
: Claude M.
Publisher: Guilford Press
Publisher Location: New York, NY
Publication Date: 2005
Page Numbers: 436-456
Publication Title: Handbook of Competence and Motivation
Source: Google Book Search

Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception Cultural Influences](#) » [Stereotype Threat](#)

Stereotypes of working women: the power of expectations

Resource Title: Stereotypes of working women: the power of expectations

Description/Annotation: This 28-page article addresses the difficulties women have due to expectations of family commitments. A woman without a husband and children is seen as incomplete and stigmatized. On the other hand, women have trouble balancing the demands of home and children with high-stress, high-performance careers. Consequently, many women fail to reach their potential in the workforce. The analysis of several direct quotes for interviews make this study particularly interesting.

Author Last Name: Camussi

Author First Name: Elisabetta

Additional Author: Leccardi

: Carmen

Publisher: Sage Publications

Publisher Location: Thousand Oaks, CA

Publication Date: 2005, Mar

Page Numbers: 113-140

Publication Title: Social Science Information

Volume: 44

Issue: 1

Source: Sage Journals Online

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Career Factors](#) » [Family Issues](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Cultural Influences](#) » [Stereotype Threat](#)

Stereotypes of Working Women: The Power of Expectations

Resource Title:	Stereotypes of Working Women: The Power of Expectations
Description/Annotation:	This 28-page article addresses the difficulties women have due to expectations of family commitments. A woman without a husband and children is seen as incomplete and stigmatized. On the other hand, women have trouble balancing the demands of home and children with high-stress, high-performance careers. Consequently, many women fail to reach their potential in the workforce. The analysis of several direct quotes for interviews make this study particularly interesting.
Author Last Name:	Camussi
Author First Name:	Elisabetta
Additional Author:	Leccardi
:	Carmen
Publisher:	Sage Publications
Publisher Location:	Thousand Oaks, CA
Publication Date:	2005, Mar 1
Page Numbers:	113-140
Publication Title:	Social Science Information
Volume:	44
Issue:	1
Source:	Sage
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

Stigma Consciousness in the Classroom: A Comparison of Pakistani Women's Motivation and

Well-Being in Science and Non-Science Fields of Study

Resource Title:	Stigma Consciousness in the Classroom: A Comparison of Pakistani Women's Motivation and Well-Being in Science and Non-Science Fields of Study
Description/Annotation:	This 11-page paper reports on a study of self-reported academic experiences of women in science and non-science in Pakistan. The goal of the study were to assess well-being and motivation among women students using the theoretical framework of the Stereotype Task Engagement Process (STEP), which posits an interaction between stereotypes and individual traits to influence task-related behaviors. The results of the research revealed important connections between gender typicality, personal achievement goals, and general well-being.
Author Last Name:	Smith
Author First Name:	Jessi L.
Additional Author:	Kausar
:	Rukhsana
Additional Author:	Holt-Lunstand
:	Julianne
Publication Date:	2007
Publication Title:	Sex Roles
Volume:	57
Issue:	3-13
Source:	SpringerLink
Source Type:	Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Still a Man's Labor Market: The Long-Term Earnings Gap. Institute for Women's Policy Research

Resource Title: Still a Man's Labor Market: The Long-Term Earnings Gap.
Institute for Women's Policy Research

Description/Annotation: This 60 page report relies on extensive research on wages in the United States over a 15 year period focusing on pay, hours worked, occupations, and family status. Major topics in the report include a new way to measure the wage gap that changes our traditional view and increases the wage gap greatly, gender segregation by job type, marriage, family care, and policy implications. Policy recommendations are made to address several different areas such as strengthening existing laws, improving educational and training opportunities, introducing new legal remedies, and increasing support from the workplace for family obligations. Excellent resource supported by numerous tables and figures with statistical data. For industry, academics, and the workforce.

Author Last Name: Rose

Author First Name: Stephen J.

Additional Author: Hartmann
:
Heidi I.

Publisher: Institute for Women's' Policy Research

Publisher Location: Washington, D.C.

Publication Date: 2004

Page Numbers: 1-60

Source: IWPR

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Stopping the Exodus of Women in Science

Resource Title: Stopping the Exodus of Women in Science

Description/Annotation: Harvard Business Review article examining the concerns of United States businesses over losing huge numbers of scientists. Statistics show the five reasons why more than 50% of women scientists, engineers, and technologists leave the field in their mid-to-late 30s. Having identified the reasons, the authors look at

ways companies can intervene at this critical juncture in a woman's career to prevent them from leaving by providing programs to address the identified problems. Excellent research of value to the scientific community and its workforce.

Author Last Name: Hewlett
Author First Name: Sylvia A.
Additional Author: Luce
: Carolyn B.
Additional Author: Servon
: Lisa J.
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2008, Jun
Page Numbers: 22-24
Publication Title: Harvard Business Review
Volume: 86
Issue: 6
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Strategic Planning for Increasing Women's Participation in the Computing Industry

Resource Title: Strategic Planning for Increasing Women's Participation in the Computing Industry

Description/Annotation: This workbook presents guidelines for strategic planning to reach gender parity in technology companies or departments. Key components include: A Blueprint for Sustained Increases in Women's Participation; Create Your Strategic Plan Using the NCWIT IT Industry Reform Model; Lay the Foundation with Top Leadership Support, Institutional Accountability, and Supervisory Relationships; Build the Ecosystem; Evaluation.

Author Last Name: Ashcraft
Author First Name: Catherine
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2010, Apr 10
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors » Retention](#)

Strategic Planning for Recruiting Women into Undergraduate Computing: High Yield in the Short Term

Resource Title: Strategic Planning for Recruiting Women into Undergraduate Computing: High Yield in the Short Term

Description/Annotation: A strategic planning outline for recruiting women in undergraduate computing. Workbook developed as a part of NCWIT Extension Services for Undergraduate Programs Workshop.

Author Last Name: NCWIT

Publisher: National Center for Women and Information Technology (NCWIT)

Publisher Location: Boulder, CO

Publication Date: 2010, Feb 3

Page Numbers: 14

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Strategies for Effecting Gender Equity and Institutional Change

Resource Title:	Strategies for Effecting Gender Equity and Institutional Change
Description/Annotation:	How can universities create institutional environments that support the success of women scholars in STEM (science, technology, engineering and mathematics) fields? This challenge has faced U.S. institutions of higher education for decades as they seek to increase the representation and involvement of STEM academic women. Solving this problem requires system-wide efforts to identify and remove organizational constraints that lead to gendered biases in institutional policies and processes. The StratEGIC Toolkit offers research-based advice about strategic interventions useful in this type of organizational change. Our research draws upon the programs and experiences of institutions that have implemented Institutional Transformation (IT) projects under the National Science Foundation's ADVANCE program. This practical Toolkit distills and shares lessons learned about particular interventions and how they combine into an overall change portfolio. Organizations can strategically choose and combine interventions as they work to support the success of women scholars in STEM fields.
Author Last Name:	Austin
Author First Name:	Ann
Additional Author:	Laursen
:	Sandra
Source Type:	Web site

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) » [Employment Career Factors](#) » [Hiring Practices Cultural Influences](#) » [Implicit Bias Career Factors](#) » [Mentoring Publications by Funder](#) » [NSF-HRD-ADVANCE Career Factors](#) » [Organizational Culture Career Factors](#) » [Professional Development Career Factors](#) » [Retention Career Factors](#) » [Tenure Policies & Practices](#)

Strategies for Increasing Minorities in the Sciences: a University of Maryland, College Park, Model

Resource Title: Strategies for Increasing Minorities in the Sciences: a University of Maryland, College Park, Model

Description/Annotation: This paper discusses the Prefreshman Academic Enrichment Program (PAEP) at the University of Maryland, College Park, which was designed to increase and retain the number of minorities in the life sciences. After 5 years, the authors observed the following results: PAEP students were retained in the sciences and at the university at a greater rate than non-PAEP students who did not participate in the program; and the graduation rate of PAEP students was higher than that of non-PAEP students.

Author Last Name: Armstrong

Author First Name: Earlene

Additional Author: Thompson

: Katerina

Publication Date: 2003

Page Numbers: 159-167

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 2

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Strategy Trumps Money: Recruiting Undergraduate Women into Computing

Resource Title: Strategy Trumps Money: Recruiting Undergraduate Women into Computing

Description/Annotation: This 4-page article from the Institute of Electrical and Electronics Engineers (IEEE) "Computer" Magazine discusses how departments can maximize recruitment of qualified female students with a low-cost, "high yield in the short term" strategy. The article presents tips and advice from the National Center for Women & Information Technology (NCWIT) on how to do so.

The full article is available in PDF format. Funded by NSF GSE under award #0533565 & #0533580.

Author Last Name: Barker
Author First Name: Lecia
Additional Author: Cohoon
:
Additional Author: Sanders
:
Publisher: IEEE
Publisher Location: Washington, DC
Publication Date: 2010, June
Page Numbers: 82.-85
Publication Title: Computer Magazine
Volume: 43
Issue: 6
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Stratification, School-Work Linkages and Vocational Education

Resource Title: Stratification, School-Work Linkages and Vocational Education
Description/Annotation: This 28-page article reports on an analysis of high school vocational inequalities based on race, class, and gender. The article suggests that vocational training in high school may lead to an increased tendency for students to drop out of high school and a decrease in college attendance, although vocational training can lead to decreased periods of unemployment, particularly for white men.
Author Last Name: Ainsworth

Author First Name: James W.
Additional Author: Roscigno
: Vincent J.
Publisher: University of North Carolina Press
Publisher Location: Chapel, Hill, N.C.
Publication Date: 2005
Page Numbers: 259-286
Publication Title: Social Forces
Volume: 84
Issue: 1
Source: Oxford Journals
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Structure of Black Male Students Academic Achievement in Science

Resource Title: Structure of Black Male Students Academic Achievement in Science

Description/Annotation: The purpose of this article is to address the Black female/Black male academic achievement gap in science majors. Addressing barriers that Black male students may experience as college science and engineering majors, this article presents marketing strategies relative to politics, emotional intelligence, and issues with respect to how science teaching, and Black male students' responses to it, are different.

Author Last Name: Rascoe
Author First Name: Barbara
Publication Date: 2005
Page Numbers: 311-327
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Stuck in the Shallow End: Education, Race, and Computing

Resource Title: Stuck in the Shallow End: Education, Race, and Computing
Description/Annotation: Social scientist Jane Margolis examines the race gap in computer science by studying three Los Angeles public high schools. She offers insights and answers in addressing the "virtual segregation" in US schools that reduces the occupational and educational opportunities for students of color.

Author Last Name: Margolis
Author First Name: Jane
Additional Author: Estrella
:
Additional Author: Rachel
Additional Author: Goode
:
Additional Author: Joanna
Additional Author: Jellison Holme
:
Additional Author: Jennifer
Additional Author: Nao
:
Additional Author: Kimberly
Publisher: MIT Press
Publisher Location: Cambridge
Publication Date: 2008
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Stuck in the Shallow End: Education, Race, and Computing

Resource Title: Stuck in the Shallow End: Education, Race, and Computing

Description/Annotation: This 216-page book from MIT Press looks at the daily experiences of students and teachers in three Los Angeles public high schools: an overcrowded urban high school, a math and science magnet school, and a well-funded school in an affluent neighborhood. The authors find a "virtual segregation" that maintains inequality, and show that the race gap in computer science is one example of the way students of color are denied a wide range of occupational and educational futures. The book is available for purchase.

Author Last Name: Margolis

Author First Name: Jane

Additional Author: Estrella

: Rachel

Additional Author: Goode

: Joanna

Additional Author: Holme

: Jennifer Jellison

Additional Author: Nao

: Kimberly

Publisher: MIT Press

Publisher Location: Cambridge, MA

Publication Date: 2008, Sep

Page Numbers: 1-216

Source: MIT Press

Source Type: Abstract/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors » Academic & Social Climate Cultural Influences Educational Factors Cultural Influences » Stereotype Threat](#)

Student and Course Factors Predicting Satisfaction in Undergraduate Courses at Harvard University

Resource Title:	Student and Course Factors Predicting Satisfaction in Undergraduate Courses at Harvard University
Description/Annotation:	The data presented in this 20-page article are drawn from over 30,000 reviews of over 1000 courses in 47 departments at Harvard University. Students were found to be more satisfied with social science and humanities courses, difficult courses, tutorial courses, courses taught by assistant or associate professors, courses with a high percentage of majors, and courses where the evaluating student was a freshman but few other freshmen were in the class. In contrast, student were less satisfied with math and science courses, and courses with a high percentage of students required to take the course. While this data cannot imply causation, this article may be useful to those studying student satisfaction in courses.
Author Last Name:	Civian
Author First Name:	Janet
Additional Author:	Brennan
:	Robert
Publication Date:	1996, Apr
Page Numbers:	1-20
Publication Title:	Annual Meeting of the American Educational Research Association
Source:	ERIC
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Educational Factors » Academic & Social Climate Educational Factors » Curriculum Educational Factors Educational Factors » Faculty Student Interaction](#)

Student interest and persistence in science: Changes in the educational pipeline in the last decade

Resource Title:	Student interest and persistence in science: Changes in the educational pipeline in the last decade
Description/Annotation:	This article explores a theory that engineers and scientists are predicted to be in short supply at the end of the 20th century (based on data from the 1980s). Their analysis shows this to be unlikely by examining population and enrollment trends. They discuss increasing female enrollment that may close the gap between males and females in engineering.
Author Last Name:	Hilton
Author First Name:	Thomas L.
Additional Author:	Lee
:	Valerie E.
Publication Date:	1988, Sep-Oct
Page Numbers:	510-526
Publication Title:	Journal of Higher Education
Volume:	59
Issue:	5
Source:	JSTOR
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Student Learning and Gender

Resource Title:	Student Learning and Gender
Description/Annotation:	In this article the author discusses her research of a sophomore design class to investigate how teams of women and men student engineers acquired and shared scientific and technical knowledge while developing solutions to real-world problems for government and industry clients. The course provided a forum where women and men students not only learned technical

information critical to their project, but also learned how to function as engineers on a team. The design class improved some women students' experiences, but these opportunities did not exist for all women in the class or in all settings on the campus. In spite of its notable successes, some facets of the organization of the course, its implementation by the faculty, and students' beliefs that their work was "basically useless" detracted from collaborative aims. These findings suggest classroom practices to create and maintain an environment where all students can participate and learn.

Author Last Name: Tonso
Author First Name: Karen L.
Publication Date: 1996, Apr
Page Numbers: 143-150
Publication Title: Journal of Engineering Education
Volume: 85
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Student Organization Awards

Resource Title: Student Organization Awards
Description/Annotation: SWE internal assessment of granting awards to collegiate SWE chapters/sections based on competition versus standards of excellence.
Author Last Name: Anderson-Rowland
Author First Name: Mary
Additional Author: Connor
:
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008
Page Numbers: 7
Source: WEPAN
Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors » Academic & Social ClimateCareer Factors Educational Factors Career
Factors » Leadership & Management Career Factors » Organizational Culture

Student Ownership: The Key to Successful Intervention Programs

Resource Title: Student Ownership: The Key to Successful Intervention Programs

Description/Annotation: An eight-page article discussing intervention programs to increase the numbers of women and minorities in science and engineering. Student ownership of programs was found to be crucial. The Women in Engineering Initiative at the University of Washington is used as an example.

Author Last Name: Brainard
Author First Name: Suzanne
Publisher Location: Washington, D.C.
Publication Date: 1992, Fall
Page Numbers: 23-30
Publication Title: Initiatives
Volume: 55
Issue: 3
Source: ERIC
Source Type: Summary, Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Students' Preconceptions of Professors: Benefits and Barriers According to Ethnicity and Gender

Resource Title:	Students' Preconceptions of Professors: Benefits and Barriers According to Ethnicity and Gender
Description/Annotation:	Study examining the influence of college student characteristics and preconceptions on teaching evaluations. Valuable for educators.
Author Last Name:	Anderson
Author First Name:	Kristin J.
Additional Author:	Smith
:	Gabriel
Publication Date:	2005
Page Numbers:	184-201
Publication Title:	Hispanic Journal of Behavioral Sciences
Volume:	27
Issue:	2
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Educational Factors](#) » [Faculty Student Interaction](#)

Study of Faculty Worklife at the University of Wisconsin-Madison

Resource Title:	Study of Faculty Worklife at the University of Wisconsin-Madison
Description/Annotation:	WISELI developed an extensive climate survey instrument based on the interview data from women faculty and staff in the STEM disciplines. The surveys have been funded by the National Science Foundation ADVANCE program, the Office of the Provost, the College of Letters and Science, and the College of Engineering.

The sample includes UW-Madison faculty in all divisions, and clinical/CHS faculty in the School of Veterinary Medicine. The first wave of data collection occurred in 2003, and the second wave in 2006. The next wave is scheduled for implementation in 2010.

Author Last Name: WISELI
Publisher: University of Wisconsin-Madison
Publisher Location: Madison, WI
Publication Date: 2003, 2006
Source: WISELI
Source Type: Website - study description, reports, presentations

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Retention](#)

Studying Gender and Ethnic Differences in Participation in Math, Physical Science, and Information Technology

Resource Title: Studying Gender and Ethnic Differences in Participation in Math, Physical Science, and Information Technology

Description/Annotation: Drawing on work associated with decision making, achievement theory, and attribution theory, researchers hypothesized that educational, vocational, and avocational choices would be most directly related to individuals' expectations for success and the importance or value they attach to the options they see as available. Authors also outlined the relation of these beliefs to cultural norms, experiences, and aptitudes and to those personal beliefs and attitudes that are commonly assumed to be associated with achievement-related activities.

Author Last Name: Eccles
Author First Name: Jacquelynne S.
Publication Date: 2005
Page Numbers: 7-13
Publication Title: New Directions for Child and Adolescent Development
Issue: 110

Source: University of Michigan

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Success in the Classroom: Mentoring and Support for Female Engineering Faculty

Resource Title: Success in the Classroom: Mentoring and Support for Female Engineering Faculty

Description/Annotation: This paper discusses a series of discussion sessions for female faculty members created by the Gender and Diversity Committee in Engineering at the University of Calgary titled "Success in the Classroom". The objectives of the sessions were to provide mentoring, support, and encouragement for female faculty through the sharing of ideas, anecdotes, and success strategies regarding undergraduate teaching. This paper describes the situation for female engineering faculty at the University of Calgary and the objectives, structure, and outcomes of the sessions as well as highlights some of the "secrets" for success in the classroom.

Author Last Name: Grozic

Author First Name: Jocelyn H.

Additional Author: McCarron

: Tamara L.

Publication Date: 2006

Page Numbers: 119-134

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 12

Issue: 2-3

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Career Factors Career Factors » Mentoring Career Factors » Professional Development

Success in Undergraduate Engineering Programs: A Comparative Analysis by Race and Gender

Resource Title: Success in Undergraduate Engineering Programs: A Comparative Analysis by Race and Gender

Description/Annotation: Interest in increasing the number of engineering graduates in the United States and promoting gender equality and diversification of the profession has encouraged considerable research on women and minorities in engineering programs. Drawing on a framework of intersectionality theory, this work recognizes that women of different ethnic backgrounds warrant disaggregated analysis because they do not necessarily share a common experience in engineering education. Using a longitudinal, comprehensive data set of more than 79,000 students who matriculated in engineering at nine universities in the Southeastern United States, this research examines how the six-year graduation rates of engineering students vary by disaggregated combinations of gender and race/ethnicity. Contrary to the popular opinion that women drop out of engineering at higher rates, results show that Asian, Black, Hispanic, Native American, and White women who matriculate in engineering are as likely as men to graduate in engineering in six years. In fact, Asian, Black, Hispanic, and Native American women engineering matriculants graduate at higher rates than men and there is a small difference for white students. 54 percent of White women engineering matriculants graduate in six-years compared with 53 percent of white men. For male and female engineering matriculants of all races, the most likely destination six years after entering college is graduation within engineering. This work underscores the importance of research disaggregated by race and gender and points to the critical need for more recruitment of women into engineering as the low representation of women in engineering education is primarily a reflection of their low representation at matriculation. Funded by NSF GSE under award #0734062.

Author Last Name: Lord

Author First Name: Susan

Publication Date: 2010, Mar

Publication Title: American Physical Society (APS) March Meeting

Source: Harvard University

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Educational Factors Publications by Funder » NSF-HRD-GSE Publications by Funder Educational Factors » Retention Career Factors » Retention

Successful Programs for Undergraduate Women in Science and Engineering: Adapting versus Adopting the Institutional Environment

Resource Title: Successful Programs for Undergraduate Women in Science and Engineering: Adapting versus Adopting the Institutional Environment

Description/Annotation: This article focuses upon programs for undergraduate women in science and engineering, analyzing those with the "most successful" and "least successful" outcomes in undergraduate degrees awarded to women in these fields. The programs that regard issues, problems, and solutions of women in science and engineering as rooted in "institutional/structural-centered," compared to "individual/student-centered, perspectives are associated with the most positive outcomes.

Author Last Name: Fox
Author First Name: Mary Frank

Additional Author: Sonnert
:

Additional Author: Nikforova
:

Publication Date: 2009

Page Numbers: 333-353

Publication Title: Research in Higher Education

Volume: 50

Source: SpringerLink

Source Type: Abstract

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

Successful Women Engineering Students: A Survey Assessment to Guide Our Efforts to Boost Women's Retention

Resource Title: Successful Women Engineering Students: A Survey Assessment to Guide Our Efforts to Boost Women's Retention

Description/Annotation: This paper reports results from a survey distributed to all undergraduate engineering women at a public Rocky Mountain Region University. This paper offers insight on top performing women's self-efficacy and their views on the college climate, the benefits from various support systems – advising, mentoring, social and financial – and the existing programming and initiatives that can play a role in their achievements. The results indicate that women students are interested and efficacious with respect to obtaining an engineering degree, and that the college climate is, on average, warm and accepting. However, women were less satisfied with advising, mentoring, and their financial support. Women students also perceive that they must sacrifice their outside interests to “succeed” in engineering and in order to handle the course workload that they perceive as overly heavy.

Author Last Name: Knight

Author First Name: Daniel

Additional Author: Corner
: Katie

Additional Author: Louie
: Beverly

Additional Author: Shoals
: Amber

Additional Author: Cabrales
: Cindy

Publication Date: 2010

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Informal Academic Preparation Educational Factors » Retention

Summary and Highlights of the Handbook on Diversity and the Law: Navigating a Complex Landscape to Foster Greater Faculty and Student Diversity in Higher Education, 2nd Edition

Resource Title: Summary and Highlights of the Handbook on Diversity and the Law: Navigating a Complex Landscape to Foster Greater Faculty and Student Diversity in Higher Education, 2nd Edition

Description/Annotation: This 96-page report from the American Association for the Advancement of Science (AAAS) and EducationCounsel summarizes the "Handbook on Diversity and the Law", published by AAAS in 2010. The Handbook provides extensive legal and policy resources for academic and legal leaders of institutions of higher education. The Handbook aims toward helping these leaders collaborate to improve access and broaden the diversity of their faculties and student bodies. This report presents the key legal and policy principles as they relate to many of the program examples provided in the Handbook. In addition, it provides new information and resources to assist institutional efforts, all of which have been produced during the 2010-2011 second phase of the project. The full report is available in PDF format.

Author Last Name: Coleman

Author First Name: Arthur L.

Additional Author: Keith

: Jamie Lewis

Additional Author: Chubin

: Daryl

Publisher: AAAS

Publisher Location: Washington, DC

Publication Date: 2012

Page Numbers: 1-96
Source: AAAS
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences » Gender Diversity](#) [Educational Factors » Legal Considerations](#)

Summary of Recent Research on Gender and High-tech Startups

Resource Title: Summary of Recent Research on Gender and High-tech Startups

Description/Annotation: This report from NCWIT summarizes a study of employment models and their importance to high-tech startups. The report identifies the main types of employment models as well as the assumptions about employee attachment, selection and control. According to the report, employment models have long-lasting effects which influence how much the number and percent of technical women grows over time. The report advises employers to recognize the model they use and either mitigate or capitalize on its effect.

Author Last Name: Cohoon

Author First Name: J. McGrath

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2011, May 18

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors](#) [Career Factors » Employment](#) [Career Factors » Hiring Practices](#)

Summer Bridge Engineering Programs for Women

Resource Title: Summer Bridge Engineering Programs for Women

Description/Annotation: These summer bridge programs assist high school females transitioning from high school into undergraduate engineering programs. Through summer bridge programs, in-coming freshman have an opportunity to meet each other and spend quality time laying the foundation upon which future relationships can form. In addition, the women discuss academics, college life, and explore ways to balance it all. There are also hands-on activities to stimulate the use of problem-solving skills and creativity.

Resources: The following Summer Bridge Programs are aimed towards female engineering students:

- [North Carolina State University WISE Summer Bridge Program](#) - for women only
- [University of Connecticut School of Engineering Summer BRIDGE Program](#) - for groups traditionally underrepresented among the nation's engineers, including women
- [UC Santa Cruz: Engineering Summer Bridge Program](#) - for women and students from ethnic groups

Site Access Details: All summer bridge program websites are publicly accessible.

Last Update Date: August 5, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Informal Academic Preparation Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

Summer Industry-Based Research Internships for Female High School Students

Resource Title: Summer Industry-Based Research Internships for Female High School Students

Description/Annotation: This paper describes an internship program that provides students opportunities to join university research teams and investigates industrial work environments. The interns develop complete lesson plans targeted at a 5th– 8th grade audience that are based on the university research and industrial sponsor's work. According to the authors, this program has a history of success in attracting women students into engineering and science majors. It also hopes to have a larger impact in the long term as the 5th– 8th grade audience targeted for the lesson plans becomes of college age and chooses science, technology, engineering, or mathematics (STEM) careers in (hopefully) larger numbers than before. Funded by NSF GSE under award #9631837.

Author Last Name: Genalo

Author First Name: Lawrence J.
Additional Author: Smith
: Emily J.
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Career Factors » Mentoring Publications by Funder](#) [NSF-HRD-GSE Publications by Funder](#)

Summer Technology and Engineering Program: An Outreach Program Benefitting Women Engineering Students From Middle School Through Graduate School

Resource Title: Summer Technology and Engineering Program: An Outreach Program Benefitting Women Engineering Students From Middle School Through Graduate School

Description/Annotation: This presentation describes the Summer Technology and Engineering Program (STEP) hosted by the Society of Women Engineers student chapter at Northwestern University. STEP invites girls in 7th and 8th grade to explore engineering disciplines and envision themselves as future engineers. The participants work closely with undergraduate and graduate student mentors from engineering to do hands-on activities from across multiple engineering disciplines. This paper discusses results of post-program surveys of middle school, undergraduate, and graduate students to show the impacts of the program on these various groups, and to provide a model for similar programs.

Author Last Name: Ciston
Author First Name: Shannon
Additional Author: Worsdall
: Ellen

Additional Author: Swenson
:
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Supervising-in-a-Box Series

Resource Title: Supervising-in-a-Box Series

Description/Annotation: "Supervising-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. Each Box includes instructions, letters, templates, slide presentations, and other resources designed for practical use by IT professionals. This Box provides resources for addressing unconscious bias and institutional barriers that affect five different supervisory job functions: Employee Recruitment/Selection; Employee Development; Team/Project Management; Performance Review/Talent Management; and Supervisors as Change Agents. The Box for each job function is available in PDF format.

Author Last Name: NCWIT

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2010, Oct

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#)

Supplemental Freshman Physics/Chemistry Programs to Support Women in Engineering

Resource Title: Supplemental Freshman Physics/Chemistry Programs to Support Women in Engineering

Description/Annotation: Recognizing the importance of successfully completing introductory science and math courses as first year engineering students, the Connections Physics Review (CPR) was developed at Northeastern University, followed by a Connections Chemistry Review program implemented in the fall of 2007. This paper presents program results over several years along with discussion of how others can implement similar support programs. Materials, including the physics and chemistry help sheets, are included in the appendix.

Author Last Name: Reisberg

Author First Name: Rachelle

Additional Author: Funai

: Amanda

Additional Author: Maheswaran

: Bala

Publication Date: 2009

Publication Title: ASEE Annal Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Supporting Students' Intentions to Persist in STEM Disciplines: The Role of Living-Learning Programs Among Other Social-Cognitive Factors

Resource Title: Supporting Students' Intentions to Persist in STEM Disciplines: The Role of Living-Learning Programs Among Other Social-Cognitive Factors

Description/Annotation: Using Social Cognitive Career Theory as a guide, authors explored the relationship between students' participation in living-learning programs and their intention to earn a baccalaureate in STEM. We found that STEM-focused programs, in comparison to general forms, held promise in supporting students' intentions to graduate in a STEM field. Funded by NSF GSE under award #1128798.

Author Last Name: Soldner

Author First Name: Matthew

Additional Author: Rowan-Kenyon

: Heather

Additional Author: Inkelas

: Karen Kurotsuchi

Additional Author: Garvey

: Jason

Additional Author: Robbins

: Claire

Publication Date: 2012

Page Numbers: 311-336

Publication Title: Journal of Higher Education

Volume: 83

Issue: 3

Source: Project Muse

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Supporting Young Women to Enter Engineering: Long-Term Effects of a Middle School Engineering Outreach Program for Girls

Resource Title: Supporting Young Women to Enter Engineering: Long-Term Effects of a Middle School Engineering Outreach Program for Girls

Description/Annotation: This study evaluated the long-term effects of Camp Reach, a 2-week residential summer camp for rising seventh-grade girls that emphasizes the social context of engineering design and includes follow-up activities through high school.

Author Last Name: Demetry

Author First Name: Chrysanthe

Additional Author: Hubelbank

: Jeanne

Additional Author: Blaisdell

: Stephanie L.

Additional Author: Sontgerath

: Suzanne

Additional Author: Nicholson

: Michelle Errington

Publication Date: 2009

Page Numbers: 119-142

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 2

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Survey-in-a-Box: Student Experience of the Major (SEM)

Resource Title:	Survey-in-a-Box: Student Experience of the Major (SEM)
Description/Annotation:	"Survey-in-a-Box" is part of the National Center for Women & Information Technology's (NCWIT) "Program-in-a-Box" series. Each Box includes instructions, letters, templates, slide presentations, and other resources designed for practical use by IT professionals. This Box provides resources that identify conditions that are helpful or harmful for student retention and for planning actions to improve the student experience. The SEM Survey-in-a-Box includes everything you need to prepare for, administer, and act on results of the survey. Box components include a survey for collecting data from undergraduates to find out what they are experiencing in the major and furnishing data to the department; directions for conducting the survey and for getting human subjects approval; department-specific analysis and recommendations; templates for presenting results to your faculty and students; and suggestions for sharing the results and taking positive action.
Author Last Name:	Barker
Author First Name:	Lecia
Additional Author:	Schaefer
:	Suzanne
Additional Author:	Krauss
:	Jane
Publisher:	NCWIT
Publisher Location:	Boulder, CO
Publication Date:	2007, May
Source:	NCWIT
Source Type:	Link to Zip file

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Survival Analysis of Faculty Retention in Science and Engineering by Gender

Resource Title:	Survival Analysis of Faculty Retention in Science and Engineering by Gender
Description/Annotation:	This 3-page article from the American Association for the Advancement of Science's (AAAS) Science Magazine contains results from a study tracking individual assistant professors hired in science and engineering since 1990 at 14 universities in the US. Professors were tracked from time of hire to time of departure by using publicly available catalogs and bulletins. Results of survival analysis showed that the chance that any given faculty member will be retained over time is less than 50% and the median time to departure is 10.9 years. Results indicated that overall, men and women are retained and promoted at the same rate; however, in mathematics, faculty leave significantly earlier than other disciplines, and women leave significantly sooner than men. The full article is available for purchase.
Author Last Name:	Kaminski
Author First Name:	Deborah
Additional Author:	Geisler
:	Cheryl
Publisher:	HighWire Press
Publisher Location:	Palo Alto, CA
Publication Date:	2012, Feb 17
Page Numbers:	864-866
Publication Title:	Science Magazine
Volume:	335
Issue:	6070
Source:	AAAS
Source Type:	Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Retention](#)

Survive and Thrive: Guided Mentoring for Untenured Faculty

Resource Title:	Survive and Thrive: Guided Mentoring for Untenured Faculty
Description/Annotation:	Research paper offers a guide for untenured faculty to build a relationship with a senior faculty mentor. Guide contains questions to ask of a mentor under topics: "Tough Questions About Why You Are Here, Joining Your Department and Discipline, Establishing Expertise, Developing Networks, Relationships and Mentoring Activities, Getting Support and Evaluating your Personal Health and Planning for the Future".
Author Last Name:	Crone
Author First Name:	Wendy
Publisher:	WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date:	2000
Page Numbers:	6
Source:	Morgan and Claypool Publishers
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Tenure Policies & Practices](#)

Surviving Engineering: From a Minority Female Perspective

Resource Title:	Surviving Engineering: From a Minority Female Perspective
Description/Annotation:	As a practicing female under-represented minority in the field of engineering, the author of this paper wondered what she could do to help in the retention and development of minority and women engineering students. This paper highlights the author's struggles through one of the most respected engineering programs in the country. By using a timeline format, she strives to demonstrate the pitfalls and triumphs along with key turning points which brought an aspiring overachieving high school student to an unsupported struggling undergraduate student with low self esteem and to a successful professional engineer today.

Author Last Name: Mobley
Author First Name: Jacquelyn R.
Publication Date: 2008
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors » Academic & Social Climate Career Factors Cultural Influences Educational Factors Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Career Factors » Organizational Culture Individual Beliefs and Behaviors » Self-perception

Sustaining and Enjoying a Multi-disciplinary, Multi-department, Multi-campus Research Collaboration on Women in Engineering

Resource Title: Sustaining and Enjoying a Multi-disciplinary, Multi-department, Multi-campus Research Collaboration on Women in Engineering

Description/Annotation: This paper identifies four inter-related themes that have emerged from the authors' reflections on their experience of gender-based multidisciplinary research: Feminist commitment; Uneven paradigmatic engagement; Negotiating knowledges; and Material conditions. Authors summarise the series of studies they have undertaken to illustrate both the nature of the research and the progressive development of their collaboration.

Author Last Name: Mills
Author First Name: Julie
Additional Author: Gill
:
Judith
Additional Author: Franzway
:
Suzanne
Additional Author: Sharp
:
Rhonda
Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#)

Sustaining Gains: Reflections on Women in Science and Technology in 20th-Century United States

Resource Title: Sustaining Gains: Reflections on Women in Science and Technology in 20th-Century United States

Description/Annotation: This account of women's initiatives and successes in 20th-century United States begins with early 20th-century involvement and suggests the subsequent ways in which the inroads of that period have influenced later struggles and strategies.

Author Last Name: Kohlstedt

Author First Name: Sally Gregory

Publication Date: 2004

Publication Title: NWSA Journal

Volume: 16

Issue: 1

Source: JSTOR

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

SWE Internet Activities Center (IAC)

Resource Title: SWE Internet Activities Center (IAC)

Description/Annotation: In the Internet Activities Center you will find a series of Lesson Plans with hands-on and interactive computer activities designed for young women grades 5-8 and above. The materials meet the National Science Standards while introducing basic engineering skills such as drafting, using tools, deductive skills and the scientific method.

Web site Link: [Link to Resource](#)

More: Each activity includes: grade appropriate background materials on the science or engineering subject, a list of materials, instructions for the activity, graphics (such as patterns to be cut-out, pictures or animations demonstrating the experiment or final product), the National Science Standard the activity supports, new vocabulary, and a fun interactive quiz or activity to check your knowledge of the subject.

Resources:

- Over 40 Lesson Plans for biomedical, civil, chemical, mechanical, electrical, materials, general, and aerospace engineering activities.
- "SWE Guide to Sharing Engineering With Girls and Young Women" provides ideas and information on presenting engineering to students.

Site Access Details: This site is publicly accessible.

Partners and Funding: The Internet Activities Center was created by Prof. F. Carroll Dougherty (MAL D), Dr. Jani Macari Pallis and Chad Okamoto through a grant from the ExxonMobil Education Foundation. The Life Science lessons were contributed by Prof. Jaci Van Heest. Additional lessons were adapted for the SWE Internet Activities Center through a Microsoft Equal Access Program grant.

Contact E-mail: hq@swe.org

Last Update Date: June 9, 2013

Resource Type Categories: Database/Tool » Teaching Tools Topical Categories: Educational Factors » Curriculum Educational Factors Educational Factors » Pedagogy & Instruction

Swimming Against the Tide: African American Girls and Science Education

Resource Title: Swimming Against the Tide: African American Girls and Science Education

Description/Annotation: "They looked at us like we were not supposed to be scientists," says one young African American girl, describing one openly

hostile reaction she encountered in the classroom. In this significant study, Sandra Hanson explains that although many young minority girls are interested in science, the racism and sexism in the field discourage them from pursuing it after high school. Those girls that remain highly motivated to continue studying science must “swim against the tide.” Hanson examines the experiences of African American girls in science education using multiple methods of quantitative and qualitative research, including a web survey and vignette techniques. She understands the complex interaction between race and gender in the science domain and, using a multicultural and feminist framework of analysis, addresses the role of agency and resistance that encourages and sustains interest in science in African American families and communities.

Author Last Name: Hanson
Author First Name: Sandra
Publisher: Temple University Press
Publication Date: 2008
Page Numbers: 224
Source: Google Book
Source Type: Partial text, Available for sale

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Cultural Influences Educational Factors Individual Beliefs and Behaviors » Family & Peers Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception Cultural Influences » Stereotype Threat

Systematic Mentoring for New Faculty Teachers and Graduate Teaching Assistants

Resource Title: Systematic Mentoring for New Faculty Teachers and Graduate Teaching Assistants

Description/Annotation: Study of two mentoring programs, one for new faculty and one for new graduate teaching assistants. The new faculty model suggests the importance of sustained, involving relationships for best outcomes with protégés. The second model focused on involvement within the pair and group meetings with positive outcomes. Useful for faculty development and retention programs, graduate teaching student development.

Author Last Name: Boyle
Author First Name: Peg
Additional Author: Boice
:
Robert
Publication Date: 1998, Spring
Page Numbers: 157-179
Publication Title: Innovative Higher Education
Volume: 22
Issue: 3
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

T-shirts and Ponytails: Women Students in Engineering Talk about Self-presentation

Resource Title: T-shirts and Ponytails: Women Students in Engineering Talk about Self-presentation

Description/Annotation: This paper discusses self-presentation issues of women in engineering. According to the author, theories of identity conflict predict that women who identify as feminine will have difficulty constructing themselves as engineers since the engineering culture is based in masculinity. The author theorizes that gender expression and identity may be a significant factor in the recruitment and retention of women into engineering colleges as well as their persistence in the workforce.

Author Last Name: Waller
Author First Name: Alisha A.
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Tackling the Engineering Resource Shortage in the South: How Can We Attract and Retain Women to Engineering?

Resource Title: Tackling the Engineering Resource Shortage in the South: How Can We Attract and Retain Women to Engineering?

Description/Annotation: The Southeast Conference (SEC) universities formed a coalition to establish a dialog among the SEC engineering schools. One goal of this coalition is to share experiences and concerns regarding diversity in our programs. This paper identifies important, common, unresolved problems associated with this issue, as well as identify collaborative efforts to resolve these problems and the “deliverables” resulting from our efforts.

Author Last Name: Scheff

Author First Name: Suzanne

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Taking On the Big Boys: Or Why Feminism is Good for Families, Business, and the Nation

Resource Title: Taking On the Big Boys: Or Why Feminism is Good for Families, Business, and the Nation

Description/Annotation: The author, a longtime labor activist in the women's labor movement, explains why feminism is good for business. She uses feminist history to provide background, and uses stories from business and government to demonstrate situations existing today where women are patronized and their work undervalued. Includes tips and strategies for women workers and for organizations to help women workers reach their full potential. For industry leaders and those studying feminism and its effects on the workplace.

Author Last Name: Bravo

Author First Name: Ellen

Publisher: The Feminist Press at City University of New York

Publisher Location: New York, NY

Publication Date: 2007, Apr

Page Numbers: 1-176

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Taking Stock: Where We've Been, Where We Are, Where We're Going

Resource Title: Taking Stock: Where We've Been, Where We Are, Where We're Going

Description/Annotation: This 30-page article reviews the progress of women, both white and minority, in science, technology, engineering, and math fields in the 1990's. The authors review several theories attempting to explain gender differences. Better high school math and science classes are recommended for underrepresented minorities, male and female. More pre-college programs that expose girls to engineering are also needed.

Author Last Name: Clewell

Author First Name: Beatriz

Additional Author: Campbell

: Patricia
Publication Date: 2002
Page Numbers: 255-284
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 3 & 4
Source: Campbell-Kibler
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Pedagogy & Instruction Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Talent Management Evaluation Toolkit: Assessing Systems for Gender Biases

Resource Title: Talent Management Evaluation Toolkit: Assessing Systems for Gender Biases

Description/Annotation: As a response to the report titled Cascading Gender Biases, Compounding Effects, this report was developed for human resources departments and those developing diversity strategies. It explains how to assess talent management systems for gender bias and stereotypes, increase awareness of bias, and how to minimize bias and stereotypes. Includes assessment steps, risk factors, and recommendations for creating solutions. For industry leadership.

Author Last Name: Warren
Author First Name: Anika K
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2009, Feb
Source: Catalyst
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Stereotype Threat](#)

Talk to Me: Improving Interactions between Engineering Faculty and Women Engineering Students (ppt)

Resource Title: Talk to Me: Improving Interactions between Engineering Faculty and Women Engineering Students (ppt)

Description/Annotation: Instructional unit developed by Dr. Carol Muller and intended for use by Women in Engineering Program Directors (WIE) and Student Affairs Administrators to encourage 1st and 2nd year engineering students to increase student-faculty interactions. Materials are appropriate for male and female students and can be used "as is" or customized.

Author Last Name: Muller

Author First Name: Carol

Publisher: WEPAN

Publisher Location: CO, Den

Publication Date: 2010

Source: WEPAN

Resource Type Categories: [Guide/Handbook](#) [Webinar/Video](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Talk to Me: Improving Interactions between Engineering Faculty and Women Engineering Students

Resource Title: Talk to Me: Improving Interactions between Engineering Faculty and Women Engineering Students

Description/Annotation: Talk to Me is a project aimed at improving faculty-student interactions for 1st and 2nd year women engineering students.

More: The goals of Talk to Me are: 5.

1. Develop an instructional unit to increase faculty-student interaction targeted at 1st and 2nd year women engineering students, when they are most at risk to switch out of engineering.

2. Increase knowledge of 1st and 2nd year women studying engineering of the academic and career value of student-faculty interaction.
3. Increase knowledge, confidence and efficacy of 1st and 2nd year women studying engineering regarding how to initiate and maintain effective interaction with engineering faculty.
4. Work with five engineering schools to implement faculty-student interaction training into the undergraduate experience.

Resources: Instructional unit developed by Dr. Carol Muller and intended for use by Women in Engineering Program Directors (WIE) and Student Affairs Administrators. Materials are appropriate for male and female students and can be used "as is" or customized.

- [Talk to Me Seminar: Secrets of Success presentation powerpoint](#)
- [Talk to Me Facilitators Toolkit and Student Handouts](#)

Site Access Details: There is an interest group in the WEPAN Knowledge Center (WKC) Professional Community for project participants. Access to survey instruments and survey analytics is limited to participating schools.

Partners and Funding: Talk to Me is funded by a grant from the Engineering Information Foundation (EIF).

Contact Name: C. Diane Matt

Contact E-mail: dmatt@wepan.org

Last Update Date: July 9, 2013

Resource Type Categories: [Guide/Handbook Database/Tool](#) » [Teaching Tools Topical Categories: Educational Factors Educational Factors](#) » [Faculty Student Interaction](#)

Talking About Leaving: Why Undergraduates Leave the Sciences

Resource Title: Talking About Leaving: Why Undergraduates Leave the Sciences

Description/Annotation: The book discusses the reasons for attrition of above average undergraduate students from science, mathematics, and engineering majors. Begins with an overview of the problem and the study, followed by the results organized into further topical areas, including: entrance into science, math, and engineering majors; the learning experience in science, math, and engineering; career and lifestyle choices; issues of gender; issues of race and

ethnicity; and conclusions and implications of the study. Offers both a good overview of research to date and a thorough look at some of the factors that affect attrition throughout the stages of education, including gender and race/ethnicity.

Author Last Name: Seymour
Author First Name: Elaine
Additional Author: Hewitt
:
Nancy M.
Publisher: Westview Press
Publisher Location: Boulder, CO
Publication Date: 1997
Database Name: Google Book Search
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Talking to Learn: Why Biology Students Should be Talking in Classrooms and How to Make It Happen

Resource Title: Talking to Learn: Why Biology Students Should be Talking in Classrooms and How to Make It Happen

Description/Annotation: This article considers research evidence that suggests that Student Talk is important in learning, addresses common challenges that instructors face in getting students talking, and describes some simple teaching strategies that anyone can use in their classroom to make Student Talk happen. Funded by NSF GSE under award #0337949.

Author Last Name: Tanner
Author First Name: Kimberly D.
Publication Date: 2009
Page Numbers: 89-94
Publication Title: CBE-Life Sciences Education
Volume: 8

Issue: 2
Source: NIH
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#)

Tapping all our Talents: Women in science, technology, engineering, and mathematics: a strategy for Scotland

Resource Title: Tapping all our Talents: Women in science, technology, engineering, and mathematics: a strategy for Scotland

Description/Annotation: This 57-page report from the Royal Society of Edinburgh recommends creating a strategy to increase the proportion of women in the workplace qualified in STEM subjects, and to increase the number who rise to senior positions in universities, research institutes, government, business and industry. The report addresses the consideration of the loss of talent in the STEM sector and an analysis of the current situation and contributing factors. The report also includes a literature review with interviews and discussion for involving representatives from different stakeholder groups including academia, trade unions, business and representative organisations; a formal written consultation; and a survey of learned societies/professional organisations.

Author Last Name: The Royal Society of Edinburgh

Publisher: The Royal Society of Edinburgh

Publisher Location: Edinburgh, UK

Publication Date: 2012, Apr

Page Numbers: 1-57

Source: The Royal Society of Edinburgh

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

TeachEngineering Digital Library

Resource Title: TeachEngineering Digital Library

Description/Annotation: The TeachEngineering digital library provides teacher-tested, standards-based engineering content for K-12 teachers to use in science and math classrooms.

Web site Link: [Link to Resource](#)

More: Engineering lessons connect real-world experiences with curricular content already taught in K-12 classrooms. Mapped to educational content standards, TeachEngineering's comprehensive curricula are hands-on, free, and relevant to children's daily lives.

Resources: Resources can be browsed by:

- [Subject Areas](#)
- [Curricular Units](#)
- [Lessons](#)
- [Activities](#)

[Accepts K12 engineering curriculum submissions](#) by teachers for inclusion in the library.

Site Access Details: This site is publicly accessible.

Partners and Funding: TeachEngineering.org is a collaborative project between faculty, students and teachers associated with five universities and the American Society for Engineering Education, with NSF National Science Digital Library funding.

Last Update Date: June 9, 2013

Resource Type Categories: [Digital Library/Collection Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teachers and the Gender Gaps in Student Achievement

Resource Title: Teachers and the Gender Gaps in Student Achievement

Description/Annotation: This 27-page article reports on a study of the influence of teachers in the gender gap in student achievement. The authors conducted a study where students were paired with either same-gender or

opposite-gender teachers. Ultimately, the study revealed that same-gender pairings between students and teachers improved achievement of both boys and girls, teacher's perceptions of student performance, and student engagement with the subject taught.

Author Last Name: Dee
Author First Name: Thomas S.
Publisher: University of Wisconsin Press
Publisher Location: Madison, WI
Publication Date: 2007
Page Numbers: 27
Publication Title: Journal of Human Resources
Volume: 42
Issue: 3
Source: NBER
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Teachers TryScience

Resource Title: Teachers TryScience

Description/Annotation: Teachers TryScience is a web site for teachers. This site provides free and engaging lessons, along with teaching strategies and resources, which are designed to spark students' interest in science, technology, engineering and math (STEM). The site also features collaboration tools to enable teachers to discuss and share effective instructional practices.

Web site Link: [Link to Resource](#)

More: Teachers TryScience was developed to bring best practices in design-based learning to schools. Design-based learning gives teachers the flexibility to facilitate and enable students to synthesize skills from a variety of disciplines and integrate them into learning activities.

Resources: The Teachers TryScience website provides a wealth of information for teachers, including:

- Lesson Plans - search by topic or create a lesson plan
- Teaching Strategies & Tutorials/How-to's
- Groups - engage in focused discussions and share effective instructional practices

Site Access Details: This is a publicly accessible site.

Partners and Funding: This website is a collaboration between the New York Hall of Science, TeachEngineering Digital Library and IBM Corporation, and is overseen by an advisory committee.

Contact E-mail: admin@teacherstryscience.org

Last Update Date: July 19, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Pedagogy & Instruction](#)

Teachers' Perception of the European Scientists

Resource Title: Teachers' Perception of the European Scientists

Description/Annotation: This article presents results of investigating the perception of teachers towards European scientists and the European dimension of research.

Author Last Name: Gouthier

Author First Name: Daniele

Publication Date: 2007, Sep

Publication Title: Journal of Science Communication

Volume: 6

Issue: 3

Source: JSTOR

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Educational Factors](#) » [Faculty Student Interaction Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Teaching Discourses: Science Teachers' Responses to the Voices of Adolescent Girls

Resource Title:	Teaching Discourses: Science Teachers' Responses to the Voices of Adolescent Girls
Description/Annotation:	The purpose of this study was to provide an opportunity for science teachers to 'listen' to adolescent girls discuss their ideas and feelings about the contemporary structure of middle-level science education. The reflections of these teachers were then analyzed to capture how the teachers interpreted what adolescent girls had to say and the action that they will take in the classroom as a result of those interpretations.
Author Last Name:	Buck
Author First Name:	Gayle A.
Publication Date:	2002
Page Numbers:	29-50
Publication Title:	Learning Environments Research
Volume:	5
Issue:	1
Source:	Springer Link
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Engineering in Single Gender Middle School Classrooms

Resource Title:	Teaching Engineering in Single Gender Middle School Classrooms
Description/Annotation:	This paper describes an investigation of middle school students' reactions to an open-ended engineering design problem, specifically to create a machine to move a Cheerio™ or a plastic egg seventy centimeters. If the problem was solved quickly, a modified problem was provided that forced the students to

redesign their solutions. Student attitudes to the design problem solution process were assessed through direct observations during the activity, and written reflective responses afterwards. The results indicate that most students were enthusiastic about developing their own in the science classroom. An interesting aspect of this study is that it was conducted in four single gender eighth-grade classrooms: two classes of males and two of females. Classroom dynamics to the activity were affected by the student demographics. Thus, this study contributes to our understanding of male and female students' creativity and approach to design processes.

Author Last Name: Watson
Author First Name: Joy
Additional Author: Lyons
:
Publication Date: 2009
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Engineering Made Easy: A Friendly Introduction to Engineering Activities for Middle School Teachers (2nd Edition)

Resource Title: Teaching Engineering Made Easy: A Friendly Introduction to Engineering Activities for Middle School Teachers (2nd Edition)

Description/Annotation: This easy and exciting time and work saving book was developed to help middle and high school teachers with no engineering background teach engineering. The activities are designed to help teachers stimulate students' thought processes and get them thinking like an engineer. By using this teaching guide, students can see that engineering is not something to be afraid of, but a realistic way to solve the problems of everyday life. The updated

second edition is divided into five units: Team Building, Problem Solving, Chemical Engineering, Mechanical Engineering, and Civil Engineering. The book is available for sale.

Author Last Name: Baine
Author First Name: Celeste
Additional Author: Cox
:
Cathi
Publisher: Engineering Education Service Center
Publisher Location: Springfield, OR
Publication Date: 2012, Aug
Page Numbers: 200
Source: Amazon
Source Type: Abstract/Available for Sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Engineering Made Easy: A Friendly Introduction to Engineering Activities for Middle School Teachers

Resource Title: Teaching Engineering Made Easy: A Friendly Introduction to Engineering Activities for Middle School Teachers

Description/Annotation: This easy and exciting time and work saving book was developed to help middle and high school teachers with no engineering background teach engineering. The activities are designed to help teachers stimulate student's thought processes and get them thinking like an engineer. By using this teaching guide, students can see that engineering is not something to be afraid of but a realistic way to solve the problems of everyday life.

Author Last Name: Baine
Author First Name: Celeste
Additional Author: Cox
:
Cathi

Publisher: Engineering Education Service Center
Publisher Location: Springfield, OR
Publication Date: 2006, Mar
Page Numbers: 200
Source: Engineering Education Service Center
Source Type: Summary, Table of contents, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Teaching Gender Issues to Undergraduate Engineering Students

Resource Title: Teaching Gender Issues to Undergraduate Engineering Students
Description/Annotation: This paper discusses the specific materials, methods and basic philosophy of teaching that are effective in teaching issues of gender. The School of Engineering and Applied Science at the University of Virginia has a Division of Technology, Culture, and Communication which offers an array of courses which address the interface between technology and society, technical writing and oral presentation, as well as engineering ethics. Faculty have found that teaching gender issues is very effective when coupled with the teaching of ethics and values of professionals.
Author Last Name: Soudek
Author First Name: Ingrid H.
Publication Date: 1997
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Innovation: Engineering 1000: Transforming Culture and Learning from Day One

Resource Title: Teaching Innovation: Engineering 1000: Transforming Culture and Learning from Day One

Description/Annotation: Changing the climate and culture of a College to one that welcomes diversity and is inclusive requires modifications of the student experience from the first day on campus. Oregon State University hosts an outdoor activity orientation program for over 1000 incoming students to emphasize essential engineering skills: teamwork, communication, and respect.

Author Last Name: Momsen

Author First Name: Ellen

Additional Author: McFarlane
:
Brett

Additional Author: Belson
:
Mark

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Teaching Materials from NASA

Resource Title: Teaching Materials from NASA

Description/Annotation: NASA's Education Materials Finder will help teachers locate science, engineering, and mathematic resources that can be used in the classroom.

Web site Link: [Link to Resource](#)

More: Resources are organized for: •

- Grades K-4
- Grades 5-8
- Grades 9-12
- Higher Education
- Information Education

Resources:

Resources include:

- Teaching materials including classroom activities, lesson plans, educator guides
- NASA podcasts
- NASA image gallery
- NASA programs such as student ambassadors, internships, scholarships
- NASA television
- NASA Digital Learning Network (DLN) - Free, interactive programs allow you and your students to learn more about our home planet and the universe beyond through video-conferencing and Web casts. Students of all ages can participate in live events featuring NASA experts and education specialists.

Site Access Details: This site is publicly accessible.

Partners and Funding: National Aeronautics and Space Administration (NASA)

Contact E-mail: public-inquiries@hq.nasa.gov

Last Update Date: Feb 23, 2010

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Resources from the Environmental Protection Agency

Resource Title: Teaching Resources from the Environmental Protection Agency

Description/Annotation: This website provides a collection of websites and documents to help teachers to explain topics in environmental science.

Web site Link: [Link to Resource](#)

Resources:

Resources include:

- Air - acid rain, indoor air pollution, ozone, radon
- Climate Change

- Conservation - energy, environmental stewardship, natural resources, pollution prevention
- Ecosystems - ecology, endangered species, global warming, habitats, watersheds
- Human Health - drinking water, fish advisories, indoor air, lead, ozone depletion, pesticides, radon, smog
- In Your Neighborhood - databases, local issues, maps
- Stewardship
- Waste & Recycling - garbage, household, hazardous & solid waste, landfills, superfund cleanups, trash
- Water- drinking water, ecosystems, lakes, oceans, rivers, water pollution, watersheds

Site Access Details: This site is publicly accessible.

Partners and Funding: U.S. Environmental Protection Agency

Last Update Date: June 10, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Informal Academic Preparation Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Science with the Social Studies of Science for Equity

Resource Title: Teaching Science with the Social Studies of Science for Equity

Description/Annotation: Author presents information pertaining to the relationship between social studies and science education. Provides reasoning as to why understanding this relationship could give women and minorities tools to change science for social justice.

Author Last Name: Lederman

Author First Name: Muriel

Publisher: Begell House

Publisher Location: Redding, CT

Publication Date: 2005

Page Numbers: 257-272

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11

Issue: 3

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching Strategis Designed to Change the Undergraduate Experience for College Women Learning Chemistry

Resource Title: Teaching Strategis Designed to Change the Undergraduate Experience for College Women Learning Chemistry

Description/Annotation: A case study was conducted to investigate teaching strategies that support the retention of women in the physical sciences, based on evidence from one of the college's most notable instructors and her teaching strategies. The strategies this teacher used included a personal “contract”, confidence building techniques, and science internships. An analysis of students' final exam scores indicated that student marks improved after the introduction of the aforementioned teaching innovations. The findings of this study suggest that this teacher's strategies may have played a part in retaining these women in the physical sciences.

Author Last Name: Khan

Author First Name: Samia

Publication Date: 2005

Page Numbers: 365-388

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 11

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Teaching the Majority: Breaking the Gender Barrier in Science, Mathematics, and Engineering

Resource Title:	Teaching the Majority: Breaking the Gender Barrier in Science, Mathematics, and Engineering
Description/Annotation:	This edited volume incorporates many different discipline perspectives on effective instruction for female students. Reflecting instructor voices in physics, engineering, mathematics, computer science, and earth sciences, this volume pulls from course practices. The book advocates for teachers to question the nature of their disciplines critically to consider how underlying assumptions restrict women's participation.
Author Last Name:	Rosser
Author First Name:	Sue
Publisher:	Teachers College Press
Publisher Location:	New York, NY
Publication Date:	1995
Page Numbers:	1-272
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Team 2000: Women Engineering the Future

Resource Title:	Team 2000: Women Engineering the Future
Description/Annotation:	This paper discusses a unique Engineering 116 course created In Fall 2000 for female students at the University of New Mexico (UNM). The underlying intent of the engineering project management course was to develop and foster successful traits and behaviors of the profession of engineers and computer scientists. The course, titled TEAM 2000: Women Engineering the Future, had as its primary function the development of a recruitment video for girls. The class offered entry-level and sophomore students a head start in team collaboration under the

direction of advanced undergraduate female students in a project management environment.

Author Last Name: Fisher
Author First Name: Deborah
Additional Author: Meyer
:
Additional Author: Strobel
:
Additional Author: Villaneuva
:
Publication Date: 2001
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Career Factors](#) » [Professional Development](#)

Teaming Backlash: Reframing Female Engineering Students

Resource Title: Teaming Backlash: Reframing Female Engineering Students
Description/Annotation: This paper covers a two-year longitudinal data analysis of the Foundation Coalition (FC) at Arizona University and focuses primarily on how the teaming learning component impacts female engineering students. Authors reveal specific gender differences and issues and identify teaming practices that are empowering for all students but more specifically provide, allow, and maintain a more equitable learning environment for female students. The paper sheds light on practical strategies and actions to adopt in order to meet the needs, to ensure the success, and to improve the attitudes and retention of females in engineering. Funded by NSF REE under award #9221460.
Author Last Name: Haag

Author First Name: Susan G.
Publication Date: 2000
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors Publications by Funder](#) » [NSF-EEC-REE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Tech Savvy: Educating Girls in the New Computer Age

Resource Title: Tech Savvy: Educating Girls in the New Computer Age
Description/Annotation: Report of AAUW findings on the disconnect for girls and technology due to the way information technology is used and applied in the classroom. Data compiled from online survey of 900 teachers, qualitative focus group research with more than 70 girls, and reviews of existing research. Valuable resource for K-12 educators, parents, WIE outreach efforts.
Author Last Name: AAUW
Publisher: American Association of University Women Educational Foundation
Publication Date: 2000
Page Numbers: 1-84
Publication Title: AAUW Educational Foundation Commission on Technology, Gender, and Teacher Education
Source: AAUW
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

TechBridge: Encouraging Girls in Science, Technology and Engineering Careers

Resource Title:	TechBridge: Encouraging Girls in Science, Technology and Engineering Careers
Description/Annotation:	TechBridge offers a wide variety of programs designed to encourage girls in technology, science and engineering. The website contains information and resources on programs and partnerships with educators, role models, families, and organizations such as Girl Scouts.
Web site Link:	Link to Resource
Logo:	
More:	Since its founding by Chabot Space & Science Center in 2000, Techbridge has served over 5,000 girls in grades 5-12.
Resources:	<p>The Techbridge website contains a wealth of information for both educators and families, including</p> <ul style="list-style-type: none">• Sample Curriculum• Techbridge Summer Institute• Role Model Career Cards• Guides for Parents• Programs-in-a-box• Publications• News and Press
Site Access Details:	The site is publicly accessible.
Partners and Funding:	Chabot Space and Science Center, Oakland, California National Science Foundation Noyce Foundation Google Gordon & Betty Moore Foundation Stephen D. Bechtel, Jr. Foundation Girl Scouts of Central Texas and Northern California
Contact Name:	Techbridge
Contact E-mail:	techbridge@chabotspace.org
Last Update Date:	May 16, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Technical to Management: Insights From Two Managers Who Made the Transition

Resource Title: Technical to Management: Insights From Two Managers Who Made the Transition

Description/Annotation: This session explains the process of, emotions related to, and factors to consider in transitioning from a technical to management role. The intent is not to convince women one way or another is correct, but to help them decide what is right for their particular case.

Author Last Name: Eidem

Author First Name: Jessica

Additional Author: Gatano

: Dan

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

Technically Speaking: Why All Americans Need to Know More About Technology

Resource Title: Technically Speaking: Why All Americans Need to Know More About Technology

Description/Annotation: Technically Speaking provides a blueprint for bringing us all up to speed on the role of technology in our society, including understanding such distinctions as technology versus science and technological literacy versus technical competence. It clearly and decisively explains what it means to be a technologically-literate citizen. The book goes on to explore the context of technological literacy in the social, historical, political, and educational environments.

Author Last Name: Pearson (ed.)

Author First Name: Greg

Additional Author: Young (ed.)

: A. Thomas
Publisher: National Academies Press, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2002
Page Numbers: 170
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: [Book](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Cultural Influences Individual Beliefs and Behaviors](#) [Cultural Influences](#) » [Media & Entertainment Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Technology and Gender Issues: Development and Assessment of a Freshman General Education Course in the College of Engineering

Resource Title: Technology and Gender Issues: Development and Assessment of a Freshman General Education Course in the College of Engineering

Description/Annotation: This paper discusses an undergraduate course, Technology VS Women, which explores the interaction of gender with technology. This course focuses on the technological changes since 1900 and how they have affected both men and women.

Author Last Name: Backer

Author First Name: Patricia

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

Technology and Women (Social & Behavioral Sciences Course Content): Taught by Engineering Technology Faculty

Resource Title:	Technology and Women (Social & Behavioral Sciences Course Content): Taught by Engineering Technology Faculty
Description/Annotation:	This article discusses a lecture titled "Technology and Women", a component of a Technological Systems course developed at the University of North Texas. Students in this course are made aware of the lack of information relating to the contributions of women to science and engineering.
Author Last Name:	Kozak
Author First Name:	Michael R.
Publication Date:	2004
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Technology in Learning: Narrowing the Gender Gap?

Resource Title:	Technology in Learning: Narrowing the Gender Gap?
Description/Annotation:	This article reports the findings of the study that analyzed students' gender differences in learning using computers in Botswana junior secondary schools in the year 2006. Variables considered were usefulness and enjoyment of using computers in learning, anxiety in learning when using computers and interaction among students of both sexes. The findings of the study indicated that while gender differences existed in anxiety and usefulness variables, some positive aspects in learning were visible when computers were used. At the end, suggestions on the way forward are outlined.
Author Last Name:	Kaino

Author First Name: Luckson Muganyizi
Publication Date: 2008
Page Numbers: 263-268
Publication Title: Eurasia Journal of Mathematics, Science & Technology Education
Volume: 4
Issue: 3
Source: EJMSTE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Technovation Challenge: Recruiting and Retaining Girls' Interest in Computer Science Through App Inventing

Resource Title: Technovation Challenge: Recruiting and Retaining Girls' Interest in Computer Science Through App Inventing

Description/Annotation: This paper from the 2012 WEPAN National Conference presents data from a survey of girls who participated in Technovation Challenge, a ten week course in which universities, technology companies, and schools come together to support high school girls in learning about computer science and entrepreneurship. Results indicate a significant difference in the girls' knowledge of computer science, the design process, entrepreneurship, and what a career in computer science looks like after taking the course. The conference paper also presents lessons learned and next steps for improvement. The full paper is available in PDF format.

Author Last Name: Countryman
Author First Name: Jeri
Additional Author: Olmsted
:
Dara
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Teetering on the Family Friendly Edge: Discrimination Against Mothers in Academia

Resource Title: Teetering on the Family Friendly Edge: Discrimination Against Mothers in Academia

Description/Annotation: A brief article discussing family-friendly policies by higher education institutions. When these policies are introduced, it is crucial deans, presidents, etc. understand they have to "walk the walk" and stand behind the policies. If the family-friendly policy really isn't, administration must step in immediately to address issues. For academics and university leadership.

Author Last Name: Fishman

Author First Name: Charlotte

Publisher: CommonDreams.org

Publisher Location: Portland, ME

Publication Date: 2005, Sep

Source: Common Dreams

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#)

Telling Stories About Engineering: Group Dynamics and Resistance to Diversity

Resource Title: Telling Stories About Engineering: Group Dynamics and Resistance to Diversity

Description/Annotation: This 18-page article discusses the problems of gender and racial diversity from a group-psychodynamic perspective. The authors propose that a large obstacle to diversity is the attitudes of the majority (white males) and suggest some shifts in thinking and speaking to make diversity more valuable. Results of focus groups and suggested responses to real situations are addressed briefly.

Author Last Name: Burack
Author First Name: Cynthia
Additional Author: Franks
: Suzanne
Publisher: John Hopkins University Press
Publisher Location: Baltimore, MD
Publication Date: 2004, Spring
Page Numbers: 79-95
Publication Title: NWSA Journal
Volume: 16
Issue: 1
Source: JSTOR
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

TERC, Inc.

Resource Title: TERC, Inc.

Description/Annotation: TERC is an independent, research-based organization dedicated to introducing millions of students throughout the United States to the exciting and rewarding worlds of math and science learning. TERC's work in mathematics and science education includes research, curriculum and technology development, and implementation support in the form of professional development and assistance to districts and schools. TERC's programs span pre-kindergarten through college, and include adult basic education and informal learning at museums, at home, and in after-school programs.

Web site Link: [Link to Resource](#)

More: The Technical Education Research Centers (TERC) was first established in 1965 by Arthur Nelson and a small group of co-founders. During its early years, TERC focused on various aspects of technical occupational education, and in the early 1970s, TERC transitioned from postsecondary technical education to K-12 science. Today the organization is known as TERC.

Resources: The wealth of information on the TERC website includes:

- Curricula and materials development
- Professional development and school reform
- Research
- Evaluation
- Products & Publications
- Programs
- Newsroom
- Areas of Expertise

Site Access Details: This is a publicly accessible site.

Partners and Funding: TERC is a non-profit organization which receives funding from a number of organizations. TERC is run by staff of 118, including nationally recognized leaders in educational research and curriculum development, and is overseen by a board of trustees.

Contact E-mail: communications@terc.edu

Last Update Date: June 11, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors » Curriculum Diversity Orgs & Pgms for Women and Girls](#)[Educational Factors Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Thawing the Freezing Climate For Women in Engineering Education: Views from Both Sides of the Desk

Resource Title: Thawing the Freezing Climate For Women in Engineering Education: Views from Both Sides of the Desk

Description/Annotation: Paper focuses on the issues relating to gendered learning styles and the reasons why college engineering programs may "freeze out" women. This article may be useful if you are looking for recommendations programmatic changes in engineering

education; specifically relating to the climate for women and gendered learning styles.

Author Last Name: Bergvall
Author First Name: Victoria L.
Additional Author: Sorby
: Sheryl A.
Additional Author: Worthen
: James B.
Publisher: Journal of Women & Minorities in Science & Engineering
Page Numbers: 323-346
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 1
Issue: 4
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

The 2010 User-Friendly Handbook for Project Evaluation

Resource Title: The 2010 User-Friendly Handbook for Project Evaluation

Description/Annotation: This handbook provides project directors and principal investigators a basic guide for evaluating NSF's educational projects. It is aimed towards those who need to learn more about both the value of evaluation and how to design and carry out an evaluation. The handbook discusses quantitative and qualitative evaluation methods, suggesting ways in which they can be used as complements in an evaluation strategy. Divided into nine chapters, chapters 1 through 7 are updates of material included in earlier Handbooks, while chapters 8 and 9 focus on rigorous project evaluation and the factors that contribute to it. The handbook also provides concrete examples of the evaluation issues discussed through a range of NSF program areas.

Author Last Name: Frechtling
Author First Name: Joy
Additional Author: Mark
:
Melvin M.
Additional Author: Rog
:
Debra J.
Additional Author: Thomas
:
Veronica
Additional Author: Frierson
:
Henry
Publisher: National Science Foundation
Publisher Location: Arlington, VA
Publication Date: 2010, Dec
Page Numbers: 1-148
Source: NSF

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Organizational Culture](#)

The 21st Century Engineer-A Proposal for Engineering Education Reform

Resource Title: The 21st Century Engineer-A Proposal for Engineering Education Reform

Description/Annotation: In this groundbreaking manifesto, Galloway vividly paints the new global landscape where mega projects, sustainability, infrastructure security, and multicultural teams pose challenges for which engineers may be unprepared. With businesslike brevity, she lays out nontechnical areas in which engineers must become proficient: globalization, communication, ethics and professionalism, diversity, and leadership. Galloway contends that the existing system for educating engineers must change, and she proposes a new master's degree in professional engineering management. A must-read for all thoughtful engineers involved in educating, hiring and managing, The 21st Century Engineer is a clarion call to reform the way today's engineers prepare for tomorrow.

Author Last Name: Galloway
Author First Name: Patricia
Publisher: ASCE Press
Publisher Location: Reston, VA
Publication Date: 2007, Nov
Page Numbers: 120
Publication Title: The 21st Century Engineer-A Proposal for Engineering Education Reform
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors » Formal Academic Preparation](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#)

The AAUW Report: How Schools Shortchange Girls

Resource Title: The AAUW Report: How Schools Shortchange Girls
Description/Annotation: This 240-page report details a study of K-12 schools that reveals significant gender and racial bias in the educational system. The 1992 report suggests that the gender gap in education at the K-12 level is increasing, resulting in a variety of negative effects for girls.
Author Last Name: AAUW
Publisher: American Association of University Women
Publisher Location: Washington, DC
Publication Date: 1992
Source: AAUW
Source Type: Executive Summary

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors Cultural Influences](#) » [Gender Diversity](#)

The Academic Self-Concept of African American and Latina(o) Men and Women in STEM Majors

Resource Title:	The Academic Self-Concept of African American and Latina(o) Men and Women in STEM Majors
Description/Annotation:	This study addresses the 4-year development of academic self-concept for African American and Latina(o) students graduating with STEM degrees, with an emphasis placed on gender differences. Ordinary Least Squares regression was utilized to explore predictors of academic self-concept for male and female students. Findings emphasize the paramount role of the college environment as compared to background and precollege characteristics. Significant predictors exclusive to women include having positive academic self-expectations and valuing group work in a classroom setting.
Author Last Name:	Espinosa
Author First Name:	Lorelle L.
Publication Date:	2008
Page Numbers:	177-203
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	14
Issue:	2
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

The ACT and High School GPA as Predictors of Success in a Minority Engineering Program

Resource Title:	The ACT and High School GPA as Predictors of Success in a Minority Engineering Program
Description/Annotation:	The purpose of this article is to investigate the use of two commonly used selection variables—high school grade point

average and ACT composite test score, as predictors of success for African-American students in a minority engineering program. In a followup to an earlier study, researchers looked at a larger sample composed of 208 African-American students enrolled in the minority engineering program and 208 White students. There were two measures of success: graduation and university grade point average. Although both ACT and high school grade point average were significantly correlated with the success measures, when used in combination, high school grade point average was the only significant predictor for both African-American and White students.

Author Last Name: Lam
Author First Name: Paul C.
Additional Author: Doverspike
:
Additional Author: Dennis
Additional Author: Zhao
:
Additional Author: Julie
Additional Author: Mawasha
:
Additional Author: P. Ruby
Publication Date: 2005
Page Numbers: 247-256
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Admissions Bias](#) [Educational Factors](#) [Educational Factors](#) » [Formal](#)
[Academic Preparation](#)

The Ada Project

Resource Title: The Ada Project

Description/Annotation: The Ada Project (TAP) is a clearinghouse for information and resources related to women in computing. TAP serves primarily as a collection of links to other online resources, rather than as an archive. TAP includes information on conferences, projects, discussion groups and organizations, fellowships and grants, notable women in Computer Science, and other electronically accessible sites. The goal of TAP is to provide a central location through which these resources can be "tapped".

Web site Link: [Link to Resource](#)

More: TAP was named after Ada Lovelace and was started in 1994 at Yale University as an online resource for women in computing.

Resources: The TAP website contains a wealth of information for women in computing, including:

- Conferences
- TAP Junior
- Organizations
- Projects
- Famous Women
- Employment

Site Access Details: This is a publicly accessible site.

Partners and Funding: Women@SCS, an organization at Carnegie Mellon University, maintains TAP on a volunteer basis.

Last Update Date: June 11, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors](#) [Career Factors » Employment](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#)

The ADVANCE Mentoring-for-Leadership Lunch Series for Women Faculty in STEM at the University of Washington

Resource Title: The ADVANCE Mentoring-for-Leadership Lunch Series for Women Faculty in STEM at the University of Washington

Description/Annotation: This paper discusses the University of Washington (UW) ADVANCE program's Mentoring-for-Leadership lunch series to encourage women faculty to consider leadership; expose women faculty to various career paths; and build a community of women faculty in STEM. This paper describes the literature that informs the program and the participants' experiences. This paper also

offers recommendations for replicating this program at other campuses.

Author Last Name: Yen
Author First Name: Joyce W.
Additional Author: Quinn
:
Additional Author: Carrigan
:
Additional Author: Litzler
:
Additional Author: Elizabeth
:
Additional Author: Riskin
:
Additional Author: Eve A.
Publication Date: 2007
Publication Title: Journal of Women and Minorities in Science and Engineering
Source: University of Washington
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development](#)

The Advancement of Women in Science and Engineering

Resource Title: The Advancement of Women in Science and Engineering

Description/Annotation: Valian argues that gender inequities for women in professions and careers at all levels in academia and in the workplace are a result of gender schemas and the accumulation of advantage. Schemas are similar to stereotypes and used to interpret social events. Useful resource for faculty and career professionals.

Author Last Name: Valian
Author First Name: Virginia
Publisher: National Academies Press, Inc.

Publication Date: 2000
Page Numbers: 24-37
Publication Title: Women in the Chemical Workforce: A Workshop Report to the Chemical Sciences Roundtable
Source: NAP
Source Type: Chapter full text

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

The Alice Curriculum: Impact on Women in Programming Courses

Resource Title: The Alice Curriculum: Impact on Women in Programming Courses

Description/Annotation: This paper discusses an effort to combat the problem of female attrition in computer science at the community college level by offering an innovative introductory programming course. Paired tests and analysis of covariance were used to evaluate whether changes had taken place for men and women with respect to learning and attitudes. Funded by NSF ATE under award #0302542.

Author Last Name: Hutchinson

Author First Name: Ashlyn

Additional Author: Moskal
: Barbara

Additional Author: Dann
: Wanda

Additional Author: Cooper
: Stephen

Publication Date: 2006

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors Publications by Funder](#) » [NSF-DUE-ATE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

The Alice Project

Resource Title: The Alice Project

Description/Annotation: Alice is a teaching tool designed as a revolutionary approach to teaching and learning introductory programming concepts. The Alice team has developed instructional materials to support students and teachers in using this new approach. Resources include textbooks, lessons, sample syllabuses, test banks, and more.

Web site Link: [Link to Resource](#)

Resources: Site resources include:

- Downloadable products by age group
- Blog
- Community forums
- Newsletter
- Publications

Site Access Details: The site and Alice tools are publicly accessible.

Partners and Funding: Carnegie Mellon University with corporate and government funding

Last Update Date: May 10, 2013

Resource Type Categories: [Database/Tool](#) » [Teaching Tools](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

The Anatomy of an Entrepreneur: Are Successful Women Entrepreneurs Different from Men?

Resource Title: The Anatomy of an Entrepreneur: Are Successful Women Entrepreneurs Different from Men?

Description/Annotation: This 12-page research report, funded by the Ewing Marion Kauffman Foundation, attempts to address part of the knowledge gap about female entrepreneurs. According to the report, successful women and men entrepreneurs are similar in almost

every respect. They had equivalent levels of education, early interest in starting their own business, a strong desire to build wealth or capitalize on a business idea, access to funding, and they largely agreed on the top issues and challenges facing any entrepreneur. The report also identifies some small but potentially informative gender differences among successful entrepreneurs. The full report is available to download in PDF format.

Author Last Name: Cohoon
Author First Name: J. McGrath
Additional Author: Wadhwa
: Vivek
Additional Author: Mitchell
: Lesa
Publisher: Ewing Marion Kauffman Foundation
Publisher Location: Kansas City, MO
Publication Date: 2010, May
Page Numbers: 1-12
Source: Social Science Research Network (SSRN)
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Application of Title IX to Science and Engineering

Resource Title: The Application of Title IX to Science and Engineering
Description/Annotation: Traces U.S. government focus on using Title IX as a tool in the Science and Engineering talent crisis to U.S. GAO report in 2004. Discusses national and institutional compliance practices to use Title IX as a lever and opportunity for change.
Author Last Name: Sevo
Author First Name: Ruta
Publisher: SWE-AWE, NAE-CASEE

Publication Date: 2009
Volume: Applying Research to Practice (ARP) Series
Source: ARP
Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

The Art of Engineering: Using Fine Arts to Discuss the Lives of Women Faculty in Engineering

Resource Title: The Art of Engineering: Using Fine Arts to Discuss the Lives of Women Faculty in Engineering

Description/Annotation: This paper discusses a study in which researchers utilized the expressive qualities of fine art to initiate a discussion among untenured women faculty members in engineering about their career struggles and successes. In the third in a series of three workshops for untenured women faculty in engineering, participants visited the Smith College Art Museum in groups of four or five in order to choose one work of art representing an ongoing struggle, and a second representing a recent accomplishment in their lives. Through these images, the participants described both personal and professional struggles and accomplishments in their lives.

Author Last Name: Chesler
Author First Name: Naomi C.
Additional Author: Riley
: Donna
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

The Assessing Women in Engineering Project: A Model for Sustainable and Profitable Collaboration

Resource Title: The Assessing Women in Engineering Project: A Model for Sustainable and Profitable Collaboration

Description/Annotation: This article describes the Assessing Women in Engineering (AWE) project's unique collaboration between a Women in Engineering (WIE) director and an assessment professional to develop exportable assessment instruments and models for WIE programs nationwide, thus allowing them to assess their programs' activities and ultimately provide data for making well-informed evaluation decisions.

Author Last Name: Marra

Author First Name: Rose M.

Additional Author: Bogue

: Barbara

Publication Date: 2004

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Issue: 3

Source: Begell House

Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

The Asynchronous Learning Environment (ALN) as a gender-neutral communication environment

Resource Title: The Asynchronous Learning Environment (ALN) as a gender-neutral communication environment

Description/Annotation: This research reports on a study with doctoral level students in both a technology intensive class and a more people-oriented

class. The directionality of forum discussion postings were examined from both a within gender perspective and a cross gender perspective. The findings showed that the postings in this Asynchronous Learning Environment (ALN) were gender-neutral.

Author Last Name: Cohen
Author First Name: M.S.
Additional Author: Ellis
:
Publication Date: 2008
Publication Title: Frontiers in Education Conference
Source: IEEE
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology

Resource Title: The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology

Description/Annotation: This 108 page Harvard Business Review report studied the career trajectories of women in science, engineering, and technology careers in order to identify why half of these women drop out of their careers at some point. Five "antigens" of corporate culture were described and their effects on women in the workplace, including isolation, hostile macho culture, extreme pressure, and barriers created by family pressures. Initiatives from a variety of companies are outlined as examples of intervention programs to support women before these barriers cause them to leave their career. For women in the workforce and industry leadership.

Author Last Name: Hewlett
Author First Name: Sylvia A.
Additional Author: Luce
:
Carolyn B.

Additional Author: Servon
:
Additional Author: Sherbin
:
Additional Author: Shiller et al
:
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2008, May
Page Numbers: 1-108
Source: Harvard Business Review
Source Type: Abstract, Available for sale

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) Resource Type
Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

The Athena Project: Its Aims, Achievements to date and Plans for the Future

Resource Title: The Athena Project: Its Aims, Achievements to date and Plans for the Future

Description/Annotation: This six page paper highlights the achievements and future plans for the Athena Project in the UK in 1999. It focuses on helping women begin to engage themselves as postgraduates into the Higher Education Sector.

Author Last Name: Bullivant
Author First Name: Susan
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 6
Source: WEPAN

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

The Benefits of Mentoring For Engineering Students

Resource Title: The Benefits of Mentoring For Engineering Students

Description/Annotation: The authors examined the benefits of mentoring for female and male engineering students and whether the benefits of mentoring differ depending on the sex of the mentor. Kram's framework of career development, psychosocial, and role-modeling functions was used to examine the benefits of mentoring for 1,069 engineering students. It was found that students with mentors were more socially integrated into their academic programs than students without mentors and that male mentors were more effective in this function than female mentors.

Author Last Name: Wallace

Author First Name: J.E.

Additional Author: Haines

:

V.A.

Publication Date: 2004

Page Numbers: 377-391

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Source: CIRTL

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

The Bold and the Brave: A History of Women in Science and Engineering

Resource Title: The Bold and the Brave: A History of Women in Science and Engineering

Description/Annotation: This book investigates how women have striven throughout history to gain access to education and careers in science and engineering (S&E). The author, herself an engineer for over 40 years, introduces the reader to key concepts and debates that contextualize the obstacles women have faced and continue to face in S&E fields. She focuses on the history of women's education in mathematics and science through the ages, and while opportunities for women were often purposely limited, she reveals how many women found ways to explore science outside of formal education. The book examines the lives and work of three women that provide excellent examples of how women's contributions to science have been dismissed, ignored or stolen outright. She concludes with an in-depth look at women's participation in S&E throughout the twentieth century and the current status of women in S&E, which has experienced a decline in recent years. The author advocates re-gendering the fields by integrating feminine and masculine approaches that would ultimately improve scientific and engineering endeavours.

Author Last Name: Frize

Author First Name: Monique

Publisher: University of Ottawa Press

Publisher Location: Ottawa

Publication Date: 2009, Dec

Page Numbers: 1-366

Source: Amazon

Source Type: Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

The Borderlands of Education: Latinas in Engineering

Resource Title: The Borderlands of Education: Latinas in Engineering

Description/Annotation: This 143 page book provides an analytically incisive view of the experiences of Latina engineers in science, technology, engineering, and math (STEM) education. the authors bridge

interdisciplinary perspectives to illuminate the nuanced and multiple exclusionary forces that shape the culture of engineering.

Author Last Name: Camacho
Author First Name: Michelle Madson
Additional Author: Lord
:
Susan M.
Publication Date: 2013, Mar 22
Page Numbers: 149
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

The Bottom Line: Connecting Corporate Performance and Gender Diversity

Resource Title: The Bottom Line: Connecting Corporate Performance and Gender Diversity

Description/Annotation: Research was explored to determine if there is a link between gender diversity at top management levels and financial performance. Return on Equity (ROE) and Total Return to Shareholders (TRS) were examined at 353 Fortune 500 companies across 11 industries. This financial information was compared to the representation of women in top management in the same companies, and a link was found to exist. Of interest to industry leaders.

Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2004
Page Numbers: 1-34
Source: Catalyst

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

The Brink of Change: Gender in Technology-Rich Collaborative Learning Environments

Resource Title: The Brink of Change: Gender in Technology-Rich Collaborative Learning Environments

Description/Annotation: The study examined middle school students' attitudes towards using computers and working in groups during scientific inquiry. The data suggest that not only are girls and boys similar with regard to attitudes about computers and group work, but that during collaborative learning activities, girls may actually participate more actively and persistently regardless of the nature of the task.

Author Last Name: Goldstein

Author First Name: Jessica

Additional Author: Puntambekar

: Sadhana

Publication Date: 2004, Dec

Page Numbers: 505-522

Publication Title: Journal of Science Education and Technology

Volume: 13

Issue: 4

Source: SpringerLink

Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Business Case for Gender Diversity

Resource Title:	The Business Case for Gender Diversity
Description/Annotation:	Compelling research demonstrating the clear benefits of gender diversity in the technology industry. A brief, bulleted report with statistics on why women help a company remain competitive in talent and innovation . Ideal for use in presentations or as an overview.
Author Last Name:	Simard
Author First Name:	Caroline
Publisher:	Anita Borg Institute for Women and Technology
Publisher Location:	Palo Alto, CA
Publication Date:	2007
Page Numbers:	1-2
Source:	ABI
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

The CalWomenTech Project: Increasing Recruitment and Retention of Female College Students in Technology Courses

Resource Title:	The CalWomenTech Project: Increasing Recruitment and Retention of Female College Students in Technology Courses
Description/Annotation:	In the CalWomenTech Project funded by the National Science Foundation (NSF), early indicators show that community colleges that proactively recruit women into technology programs will have a significant increase in the percentage of women students in a little over a year's time. Of the four community colleges participating in the CalWomenTech Project's first research group, the two sites that implemented project recruitment strategies within the recommended timelines had an increase in women in their targeted programs of 10% to 15%. In addition, a college that was able to complete one of the four strategies before the fall

semester (posters) had a smaller increase of 5%, while the college that did not implement any of the strategies saw a decrease of -3%. A second group of four community colleges was added later in the project; the 6 to 9 months prior to fall enrollment was not enough lead time for them to implement the major recruitment strategies. Funded by NSF GSE under award #0533564.

Author Last Name: Milgram
Author First Name: Donna
Publication Date: 2009
Publication Title: WEPAN 2009 Conference Proceedings
Source: IWITTS
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Educational Factors](#) » [Retention](#)

The Career Development of Women Executives in Information Technology

Resource Title: The Career Development of Women Executives in Information Technology

Description/Annotation: This paper reports the results of a study on the career development and aspirations of women in executive level positions in information technology. The major method of this research study was individual case studies which relied on in-depth telephone interviews with a sample of 25 women in executive level positions in IT in 25 Fortune 500 companies. The study provided an insight into the perception of women executives working in information technology (IT), and their role in this fast-growing technological area.

Author Last Name: Wentling
Author First Name: Rose Mary
Additional Author: Thomas
:
Steven P.
Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

The CBI First Women awards: The woman who invented Viagra and other female pioneers

Resource Title: The CBI First Women awards: The woman who invented Viagra and other female pioneers

Description/Annotation: Short news article spotlighting female pioneers in science, including Dr Gill Samuels, co-developer of Viagra. In short interview, Dr. Samuels discusses the influence of her family in supporting her curiosity and learning as a child, the value of mentors, and personal qualities needed by scientists. She stresses the need to support working mothers with career options to ensure they have flexibility and choices in managing their career while raising a family.

Author Last Name: Akbar

Author First Name: Arifa

Publisher: The Independent

Publisher Location: UK

Publication Date: 2005, Jun 9

Publication Title: The Independent (UK)

Source: The Independent

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Center for Women's Entrepreneurial Leadership at Babson College (CWEL)

Resource Title: The Center for Women's Entrepreneurial Leadership at Babson College (CWEL)

Description/Annotation: The Center for Women's Leadership at Babson College defines its mission as creating, supporting and disseminating best practices for women in entrepreneurial leadership positions. They provide information and programming for students, professionals, and organizations to promote women in overcoming gender issues in their work and personal lives.

Web site Link: [Link to Resource](#)

More: CWEL focuses on women in all stages of their careers and on organizations employing and run by women. Some of the specific programs available to students, professionals, and organizations are:

- Women's Leadership Program for Undergraduate Students
- Women's Leadership Program for Graduate Students
- Author Series
- Executive Education
- Applied Research

Resources:

- Programs
- Events
- Outreach activities
- Research
- E-newsletter
- Blog

Site Access Details: Free access to the general public.

Partners and Funding: A part of Babson College.

Contact E-mail: cwel@babson.edu

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

The Challenges of Leadership in the Modern World: Introduction to the Special Issue

Resource Title: The Challenges of Leadership in the Modern World: Introduction to the Special Issue

Description/Annotation: Overview of current leadership theory and practice including a look at Bad Leadership. Useful for those interested in leadership development.

Author Last Name: Bennis

Author First Name: Warren

Publication Date: 2007, Jan

Page Numbers: 2-5

Publication Title: American Psychologist

Volume: 62

Issue: 1

Source: University of Southern California

Database Name: PubMed

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

The Characteristics and Experiences of Minority Freshmen Committed to Biomedical and Behavioral Science Research Careers

Resource Title: The Characteristics and Experiences of Minority Freshmen Committed to Biomedical and Behavioral Science Research Careers

Description/Annotation: This study examines the characteristics and pre-college experiences of African American/Black, Latina/Latino, and American Indian students who demonstrate an interest in pursuing a major in a biomedical or behavioral science field as well as an interest in pursuing a career in scientific research at college entry. Using data from the Cooperative Institutional Research Program, the study explores factors that contribute to the career aspirations of racial/ethnic minority populations. Logistic regression analyses on a national sample of 71,000 students reveal that coursework and experiential learning in the sciences during high school as well as having a parent who is employed in a scientific field are

important contributors to early interest in pursuing a scientific research career.

Author Last Name: Oseguera
Author First Name: Leticia
Additional Author: Hurtado
:
Additional Author: Denson
:
Additional Author: Cerna
:
Additional Author: Saenz
:
Additional Author: Victor
Publication Date: 2006
Page Numbers: 155-177
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 2-3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Family Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Chilly Climate: Fact or Artifact?

Resource Title: The Chilly Climate: Fact or Artifact?
Description/Annotation: In this 24-page article, the authors studied whether the supposed "chilly" classroom environment for women was real. Twenty-four male led and 21 female led classrooms were observed, and there was found to be no correlation between the sex of the instructor and the balance of student interaction. Therefore, the "chilly climate" theory was refuted.

Author Last Name: Constantinople
Author First Name: Anne
Additional Author: Cornelius
:
Additional Author: Gray
:
Publisher: Ohio State University Press
Publisher Location: Columbus, OH
Publication Date: 1988, Sep/Oct
Page Numbers: 527-550
Publication Title: Journal of Higher Education
Volume: 59
Issue: 5
Source: JSTOR
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

The Classroom Climate: A Chilly One for Women?

Resource Title: The Classroom Climate: A Chilly One for Women?
Description/Annotation: This 1982 study describes the chilly climate in the classroom for all fields, especially male-dominated fields. The report contains specific qualitative and quantitative examples. Policy is recommended.
Author Last Name: Hall
Author First Name: Roberta M.
Additional Author: Sandler
:
Bernice R
Publisher: Association of American Colleges
Publisher Location: Washington, D.C.

Publication Date: 1982
Page Numbers: 1-24
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Climate for Women in Academic Science: The Good, The Bad, and the Changeable

Resource Title: The Climate for Women in Academic Science: The Good, The Bad, and the Changeable

Description/Annotation: This study of 208 faculty women examines the effect of personal negative experiences and perceptions of the workplace climate on job satisfaction, felt influence, and productivity.

Author Last Name: Settles

Author First Name: Isis H.

Additional Author: Cortina

: Lilia M.

Additional Author: Malley

: Janet

Additional Author: Stewart

: Abigail J.

Publication Date: 2006, Mar

Page Numbers: 47-58

Publication Title: Psychology of Women Quarterly

Volume: 30

Issue: 2

Source: Wiley

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

The Coalition of Minority Engineering Societies and The Society of Women Engineers (CEMSWE): collaborative retention efforts with INTEL

Resource Title: The Coalition of Minority Engineering Societies and The Society of Women Engineers (CEMSWE): collaborative retention efforts with INTEL

Description/Annotation: The Coalition of Engineering Minority Societies and the Society of Women Engineers (CEMSWE) was created in 1998 and operates out of Center for Engineering Diversity and Retention (CEDAR). In the fall of 2003, CEMSWE collaborated with INTEL to provide a more comprehensive retention program geared at improving student GPA's. The program, known as the CEMSWE 3.0 Program, has an academic excellence component, weekly monitoring and peer cluster meetings. This paper further details the program, analyzes its success and makes recommendations on how universities and corporations can use this model to strengthen their own retention efforts for underrepresented populations in engineering.

Author Last Name: Newell

Author First Name: D.C.

Additional Author: Echols

: E.

Additional Author: Kwawu

: A.

Publication Date: 2004

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Comeback: Seven Stories of Women Who Went from Career to Family and Back Again

Resource Title:	The Comeback: Seven Stories of Women Who Went from Career to Family and Back Again
Description/Annotation:	Although much has been written about motherhood and working, this book focuses on the fact that if and when most women return to work after having children, they seldom return to exactly the same work situation. Features stories of women who returned to their career and the changes they made and the reasons for those changes. For working mothers.
Author Last Name:	Keller
Author First Name:	Emma G.
Publisher:	Bloomsbury USA
Publisher Location:	New York, NY
Publication Date:	2008, Sep
Page Numbers:	1-240
Source:	Amazon
Source Type:	Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Family Issues](#)

The Computer Expert in a Mixed-Gendered Collaborative Writing Groups

Resource Title:	The Computer Expert in a Mixed-Gendered Collaborative Writing Groups
Description/Annotation:	When mixed-gendered student teams collaborate on technical writing tasks, a single male often emerges as the group computer expert. The effects of this trend on perceptions of workload are unknown. This article reports the results of a study in which 12 mixed-gendered teams answered questionnaires on the division and perceptions of labor in their teams. Detailed case studies of four teams supplement the questionnaires. Findings suggest that computer work was highly visible, highly valued, and dominated

by men. By contrast, writing was less visible and selectively recognized. Some men were credited with strong writing skills even though they did not produce writing for the project. Moreover, some students explicitly leveraged their computer expertise to avoid writing; furthermore, these computer experts rarely shared technical expertise with others in the context of the team project. Funded by NSF GSE under award #0225186.

Author Last Name: Wolfe
Author First Name: Joanna
Additional Author: Alexander
:
Kara Poe
Publication Date: 2005
Page Numbers: 135-170
Volume: 19
Issue: 2
Source: Sage
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

The Computer Science Pipeline in Urban High Schools: Access to What? For Whom?

Resource Title: The Computer Science Pipeline in Urban High Schools: Access to What? For Whom?

Description/Annotation: With the vast amount of lucrative opportunities available to those with formal training in computer science, why are not more black and Latino Americans choosing this career pathway. A thorough analysis of the curriculum and opportunities available to minority high school students to study computer science was conducted.

Author Last Name: Margolis
Author First Name: Jane

Additional Author: Holme
:
Additional Author: Estrella
:
Additional Author: Goode
:
Additional Author: Nao
:
Publisher: IEEE
Publisher Location: New York, NY
Publication Date: 2003
Page Numbers: 12-19
Publication Title: Technology and Society Magazine
Volume: 22
Issue: 3
Source: IEEE
Source Type: Summary, Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Formal Academic Preparation Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Continued Evaluation of Voucher Impact on the Achievement of Elementary Students in a Majority African American Public School District

Resource Title: The Continued Evaluation of Voucher Impact on the Achievement of Elementary Students in a Majority African American Public School District

Description/Annotation: This paper discusses vouchers for students in urban school districts which may promote the increased participation of underrepresented groups in the fields of science and engineering.

This study presents the results of evaluating the achievement of a cohort of these students from the fall of first grade to the spring of fourth grade. The analysis of data using adjusted measures suggests no differences in achievement from first grade to fourth grade with respect to achievement in many content areas. The present data set neither clearly supports nor refutes the use of vouchers.

Author Last Name: Metcalf
Author First Name: Kim K.
Additional Author: Boone
: William J.
Additional Author: Legan
: Natalie A.
Additional Author: Paul
: Kelli M.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The contribution of office-hours-type interactions to female student satisfaction with the educational experience in engineering

Resource Title: The contribution of office-hours-type interactions to female student satisfaction with the educational experience in engineering

Description/Annotation: This paper discusses a study in which 41 students from the School of Industrial Engineering at the University of Oklahoma were interviewed to analyze the unexpected success that this school has had in attracting and retaining female students. Female participants commented spontaneously on office-hours-type-

interactions considerably more often than the males. Students of both genders reported many more positive experiences than negative experiences with industrial engineering faculty in particular. This suggests that the high quality of faculty-student interactions outside of class is likely to be one factor affecting the attainment of gender parity in this program.

Author Last Name: Lancaster
Author First Name: Stephen M.
Additional Author: Walden
:
Additional Author: Susan E.
Additional Author: Trytten
:
Additional Author: Deborah A.
Additional Author: Murphy
:
Additional Author: Teri J.
Publication Date: 2005
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Culture of Open Source Computing

Resource Title: The Culture of Open Source Computing
Description/Annotation: This 6-page annotated bibliography from the National Center for Women & Information Technology (NCWIT) briefly describes current research and identifies pertinent articles about Open Source Software (OSS) culture and women's participation in it. This bibliography organizes current research into five topics: Gender Dimensions, Entry & Internal Advancement, Knowledge Acquisition, Membership and Organization, and Motivations & Intentions to Participate. The bibliography is available in PDF format.
Author Last Name: Holliger

Author First Name: Andrea
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2007, Nov
Page Numbers: 1-6
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Bibliographies](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#)

The Development and Consequences of Stereotype Vulnerability in Adolescents

Resource Title: The Development and Consequences of Stereotype Vulnerability in Adolescents

Description/Annotation: Overview of the relationship of stereotype threat to academic performance both for minority groups and for women beginning in adolescence. Various methods for reducing stereotype threat is considered. Useful for educators.

Author Last Name: Aronson
Author First Name: Joshua
Additional Author: Good
: Catherine
Publisher: Information Age Publishing, Inc.
Publisher Location: Greenwich, CT
Publication Date: 2003
Page Numbers: 22
Publication Title: Academic Motivation of Adolescents. Adolescence and Education Series
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies

Resource Title:	The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies
Description/Annotation:	This book changes the way we understand diversity--how to harness its untapped potential, how to understand and avoid its traps, and how we can leverage our differences for the benefit of all. He describes how both cognitive and identity diversity can benefit organizations.
Author Last Name:	Scott E.
Author First Name:	Page
Publisher:	Princeton University Press
Publisher Location:	Princeton, NJ
Publication Date:	2007
Page Numbers:	448
Source:	Princeton University Press
Source Type:	Available for sale, Summary, Partial text preview via Google

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

The Differential Effects of Female Only vs. Co-ed Enrichment Programs on Middle School Students' Attitudes to Science, Mathematics and Engineering

Resource Title:	The Differential Effects of Female Only vs. Co-ed Enrichment Programs on Middle School Students' Attitudes to Science, Mathematics and Engineering
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Description/Annotation: The Center for Pre-College Programs at New Jersey Institute of Technology offers a series of summer programs designed to increase academically talented students' interest in the fields of science, mathematics, engineering and technology in an effort to increase the number of young students, particularly girls and other traditionally underrepresented minorities, who pursue technological careers. One program in particular, Woman in Engineering and Technology, called FEMME, was designed specifically for young women in an effort to increase the number of women interested in engineering and other technological careers. All students who attended one of the 2006 summer programs at the Center for Pre-College Programs were asked to complete a survey at the beginning and again at the end of their program. This paper examines students' responses and attitudes toward science, mathematics and engineering and their knowledge about careers in engineering from the beginning to the end of the program. Funded by NSF GSE under award #9450592.

Author Last Name: Hirsch
Author First Name: Linda
Additional Author: Carpinelli
: John
Additional Author: Kimmel
: Howard
Additional Author: Rockland
: Ronald
Additional Author: Bloom
: Joel
Publication Date: 2007
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Division of Household Labor

Resource Title:	The Division of Household Labor
Description/Annotation:	A 24-page review of research on household division of labor, reporting measurements (time diaries, direct questions, other measures), historical discussions of the topic, theoretical explanations, other influencing factors (marital status, race/ethnicity, contribution of others). Also includes a discussion of the social construction of gender and the assignment of housework and the consequences of this division of labor in the home. A good overview of the research up until the mid 1990s on the topic of household division of labor.
Author Last Name:	Shelton
Author First Name:	Beth Anne
Additional Author:	John
:	Daphne
Publisher:	Annual Reviews
Publication Date:	1996
Page Numbers:	299-322
Publication Title:	Annual Review of Sociology
Volume:	22
Source:	JSTOR
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#)

The Double Bind: The Next Generation

Resource Title:	The Double Bind: The Next Generation
Description/Annotation:	This 11-page article from Harvard Educational Review explores the history and current status of women of color in science, technology, engineering, and mathematics (STEM) fields. The authors analyze the past and the present regarding the pathways used by minority women entering STEM, their patterns of

advancement, and shifting paradigms on how best to support women of color in these fields.

Author Last Name: Malcom
Author First Name: Lindsey E.
Additional Author: Malcom
:
Shirley M.
Publisher: Harvard Education Publishing Group
Publication Date: 2011, Jun
Page Numbers: 162-172
Publication Title: Harvard Educational Review
Volume: 2011
Issue: Summer
Source: Harvard Education Publishing Group
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

The Double-Bind Dilemma for Women in Leadership: Damned if You Do, Doomed if You Don't

Resource Title: The Double-Bind Dilemma for Women in Leadership: Damned if You Do, Doomed if You Don't

Description/Annotation: A part of a series on barriers to advancement for women, this report further investigates responses from two prior studies on how women deal with stereotyping and gender bias in their work lives. Analysis on previous responses, combined with in-depth interviews, focus on three predicaments which place women leaders in a double-bind: perceptions of being too soft or too tough but never just right, being subjected to higher competency standards than men, and being perceived as competent or liked but seldom both. Of value to industry and women in leadership positions.

Author Last Name: Catalyst

Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2007, Jul
Page Numbers: 1-48
Source: Catalyst
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Stereotype Threat](#)

The Dynamics of "Tokenism": How College Students are Affected by the Proportion of Women in Their Majors

Resource Title: The Dynamics of "Tokenism": How College Students are Affected by the Proportion of Women in Their Majors

Description/Annotation: This 37-page paper reports on a study intended to test the theory of "tokenism" by Rosabeth Moss Kantner, which suggests that members of minority groups will experience adverse situations (poorer performance, self-esteem, and less satisfaction) as group representation within a larger population becomes smaller. The empirical study conducted by the author using the dataset collected in the Cooperative Institutional Research Program Freshman Survey of 1985 and the Follow-Up Survey of 1989 sought to determine the impact of the proportion of women in various disciplines on college outcomes of both men and women. The study found that student outcomes were related to a number of factors (individual characteristics, college environment) rather than to the proportion of women in the major field.

Author Last Name: Sax
Author First Name: Linda J.
Publisher: Springer
Publisher Location: Netherlands
Publication Date: 1996
Page Numbers: 389-425

Publication Title: Research in Higher Education
Volume: 37
Issue: 4
Source: SpringerLink
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Earnings Benefits of Majoring in STEM Fields Among High Achieving Minority Students

Resource Title: The Earnings Benefits of Majoring in STEM Fields Among High Achieving Minority Students

Description/Annotation: This 22-page study from Research in Higher Education, the Journal of the Association for Institutional Research, examines the association between major field of study in college and early career earnings among a sample of academically accomplished minority students. Results demonstrate the economic benefits minority students experience from majoring in a science, technology, engineering and math (STEM) fields during college, and highlight the importance of gaining employment in a closely related field in order to secure those benefits. The results also illustrate the need to carefully account for self-selection when estimating the earnings premiums in relation to educational experiences during college. The full report is available for purchase.

Author Last Name: Melguizo

Author First Name: Tatiana

Additional Author: Woniak

: Gregory C.

Publisher: Springer

Publication Date: 2012, Jun

Page Numbers: 383-405

Publication Title: Research in Higher Education

Volume: 53
Issue: 4
Source: SpringerLink
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

The Earnings of Asian Engineers in the United States: Race, Nativity, Degree Origin and Influences of Institutional Factors on Human Capital and Earnings

Resource Title: The Earnings of Asian Engineers in the United States: Race, Nativity, Degree Origin and Influences of Institutional Factors on Human Capital and Earnings

Description/Annotation: This paper examines the effects of race, nativity (birthplace), and degree origin on the earnings of college-educated, full-time Asian engineers in the United States when compared with whites and with each other. When personal, educational, and employment characteristics are controlled for, ordinary least-squares and quantile regressions at the 10th, 25th, 50th, and 75th percentiles show that being Asian did not have a disadvantage in 1993 or 2003. The second factor, Asian nativity, had a negative effect at one percentile in each year. Results also showed that having the highest degree from an Asian institution, compared with that received in the United States, led to earning disadvantages at all percentiles in 1993 and in 2003.

Author Last Name: Tao
Author First Name: Yu
Publication Date: 2011
Page Numbers: 225-249
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 3
Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

The Effect of Cooperative Education on Change in Self-Efficacy among Undergraduate Students: Introducing Work Self-Efficacy

Resource Title: The Effect of Cooperative Education on Change in Self-Efficacy among Undergraduate Students: Introducing Work Self-Efficacy

Description/Annotation: This study examines the effect of cooperative education, controlling for contextual support and demographic characteristics, on three dimensions of self-efficacy change: work, career, and academic. Of the three forms of self-efficacy, work self-efficacy was found to be the one efficacy form impacted by cooperative education. Since self-efficacy is shaped by performance accomplishments, student success in their co-op jobs appears to enhance their confidence in performing a variety of behaviors that are particular to handling the requirements of the workplace. Change in work self-efficacy was also affected by change in students' confidence in their career orientation. This study claims to open up the so-called "black box of co-op" to articulate the practices and behaviors of cooperative education that shape its contribution to the undergraduate experience. Funded by NSF GSE under award #0827490.

Author Last Name: Raelin
Author First Name: Joseph A.
Additional Author: Bailey
: Margaret B.
Additional Author: Hamann
: Jerry
Additional Author: Pendleton
: Leslie K.
Additional Author: Raelin
: Jonathan

Publication Date: 2011
Page Numbers: 17-35
Publication Title: Journal of Cooperative Education and Internships
Volume: 45
Issue: 2
Source: Social Science Research Network (SSRN)
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-](#)
[GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#) [Individual Beliefs and](#)
[Behaviors](#) » [Self-perception](#)

The Effect Of Female Student Participation In The Society Of Women Engineers On Retention - A Study At Baylor University

Resource Title: The Effect Of Female Student Participation In The Society Of Women Engineers On Retention - A Study At Baylor University

Description/Annotation: This paper discusses a student section of Society of Women Engineers (SWE) started in September of 1999 by female students in the School of Engineering & Computer Science at Baylor University. Their main purpose in doing this was to foster a sense of community among female students in the school, especially in disciplines where the ratio of female to male students is very low. This paper documents the approach of the SWE officers to the growth and development of the student section, and includes data on the effect of the student chapter of SWE on retention of female students in the School of Engineering & Computer Science at Baylor University.

Author Last Name: Fry
Author First Name: C.C.
Additional Author: Allgood
:
S.L.
Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

The Effect of Gender Composition of Faculty on Student Retention

Resource Title: The Effect of Gender Composition of Faculty on Student Retention

Description/Annotation: An 11-page article that reports on a study of the effect of the gender of faculty members on first-year retention of female students. Includes a brief discussion on the importance of role modeling to students, particularly female students. The study found a positive relationship between the percentage of classes in science and mathematics classes taught by female faculty, suggesting a greater possibility of providing female role models, and the retention of female students.

Author Last Name: Robst

Author First Name: John

Additional Author: Keil
: Jack

Additional Author: Russo
: Dean

Publication Date: 1998

Page Numbers: 429-439

Publication Title: Economics of Education Review

Volume: 17

Issue: 4

Source: ScienceDirect

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Retention](#)

The Effect of Gender on Support and Self-Efficacy in Undergraduate Engineering Programs

Resource Title: The Effect of Gender on Support and Self-Efficacy in Undergraduate Engineering Programs

Description/Annotation: This study is part of a larger research project, supported by a National Science Foundation Research on Gender in Science and Engineering program grant, designed to determine the effect of self-efficacy and other factors on the retention of women in undergraduate engineering programs. These data represent the first wave of the study completed in the 2008-2009 academic year of sophomores in the colleges of engineering from four participating universities.

Author Last Name: Reisberg

Author First Name: Rachelle

Additional Author: Bailey

: Margaret

Additional Author: Burger

: Carol

Additional Author: Hamann

: Jerry

Additional Author: Raelin

: Joe

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors »
Retention Individual Beliefs and Behaviors » Self-perception

The Effect of Gender, Socio-economic Status and School Location on Students Performance in Nigerian Integrated Science

Resource Title: The Effect of Gender, Socio-economic Status and School Location on Students Performance in Nigerian Integrated Science

Description/Annotation: The study examined the effects of Gender, socioeconomic status and school location, on Nigerian students performance in Integrated Science. The results of the study show that there is a significant interaction between gender and school locations on performance in Integrated Science. The study also revealed a significant interaction between school location and socioeconomic status but the combined effect of gender and socioeconomic status did not produce any significant effect on students performance in Integrated Science.

Author Last Name: Okoye

Author First Name: N.S.

Publication Date: 2009, Sep

Page Numbers: 561-568

Publication Title: Education

Volume: 129

Issue: 3

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Effect of Skewed Gender Composition on Student Participation in Undergraduate Engineering Project Teams

Resource Title: The Effect of Skewed Gender Composition on Student Participation in Undergraduate Engineering Project Teams

Description/Annotation: This study investigates student's active participation, i.e., the roles and behaviors adopted by male and female students as a function of gender composition of the group. Survey results from undergraduate engineering students show that male students tended to rate their leadership and performance higher when there were fewer other men in the group. This research suggests that male students adopt more active roles and may have better outcomes than female students in project presentation groups.

Author Last Name: Meadows

Author First Name: Lorelle A.

Additional Author: Sekaquaptewa

:

Denise

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Effect of Stereotype Threat on Undergraduates in An Introductory Astronomy Class

Resource Title: The Effect of Stereotype Threat on Undergraduates in An Introductory Astronomy Class

Description/Annotation: This quantitative study tests the hypothesis that undergraduates taking an introductory astronomy class for nonscience majors are susceptible to stereotype threat (ST). The Astronomy Diagnostic Test (ADT), a conceptual survey designed for introductory astronomy classes, was administered pre- and postcourse to two pairs (control and threatened) of the same class taught by the same professors, one pair at a public, suburban community college and the other pair at a large, state research university. The results showed no ST effect on the women in the university class. The college women underperformed and the men overperformed at a low statistical significance.

Author Last Name: Hufnagel

Author First Name: Beth
Additional Author: Deming
: Grace L.
Additional Author: Landato
: Janet M.
Additional Author: Hodari
: Apriel K.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic](#)
[Preparation](#) [Cultural Influences](#) » [Stereotype Threat](#)

The Effect of Stereotype Threat on Women's Performance on Fundamentals of Engineering Exam

Resource Title: The Effect of Stereotype Threat on Women's Performance on Fundamentals of Engineering Exam

Description/Annotation: This study examines whether stereotype threat interferes with women's performance on the Fundamentals of Engineering Exam (FEE), the first step in the process to become a licensed professional engineer. Sophomore and junior women and men engineering students completed one of two tests where the test questions were a subset of previous FEE questions. One test was comprised of primarily difficult questions while the other was made up of mostly easy questions. Results indicated that gender differences were evident only on difficult engineering questions after the engineering area expertise factor was controlled.

Author Last Name: Bell
Author First Name: Amy E.

Additional Author: Spencer
: Steven J.
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

The Effect of World War II on Women in Engineering

Resource Title: The Effect of World War II on Women in Engineering

Description/Annotation: This article examines the history of women in engineering in the United States during World War II. Women were actively recruited as engineering aides by the federal government, which saw them as a temporary substitute for men who were in the military. Yet this crisis did not break down the barriers to and prejudices against women in engineering, nor did it give them a real opportunity to become professional engineers equal to men. After the war, calls for a return to normalcy were used to reestablish social norms, which kept women at home and reserved desirable places in the workforce, including in engineering, for men.

Author Last Name: Barker

Author First Name: Anne M.

Publication Date: 2003

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 3

Source: Harvard University

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Stereotype Threat](#)

The Effectiveness of Engineering Workshops in Attracting Females into Engineering Fields: A Review of the Literature

Resource Title:	The Effectiveness of Engineering Workshops in Attracting Females into Engineering Fields: A Review of the Literature
Description/Annotation:	All-girl engineering workshops are increasing in popularity as a means to attract females into the male-dominated field of engineering. However, the effectiveness of such workshops as a recruitment tool is unclear. This report summarizes several research studies on this topic with the intent of showing the effectiveness of such workshops and other novel methods of introducing and retaining females throughout the schooling years.
Author Last Name:	Sinkele
Author First Name:	Carrie Nicole
Additional Author:	Mupinga
:	Davison M.
Publication Date:	2011
Page Numbers:	37-42
Publication Title:	The Clearing House: A Journal of Educational Strategies, Issues and Ideas
Volume:	84
Issue:	1
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Articles/Reports](#) » [Literature Reviews](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

The Effectiveness of Supplemental Instruction and Technology in Increasing Student Performance in Mathematics

Resource Title:	The Effectiveness of Supplemental Instruction and Technology in Increasing Student Performance in Mathematics
Description/Annotation:	This paper discusses how Supplemental Instruction (SI) coupled with mathematics software (Thinkwell, Inc.) increased student performance in high-risk mathematics courses at Claflin University. Researchers tailored the typical SI model to fit the diverse learning styles of students. Failure rates, including withdrawal, in College Algebra and Pre-Calculus were extremely high, with the majority of these withdrawals occurring after students received their mid-term examination results. Low achievers in science, engineering, and mathematics (SEM) changed their majors; hence, retention and graduation rates could ultimately be affected. Researchers supplemented the class lecture with SI sessions in the evening and Math Lab during the day. Students learned mathematical steps to solve problems and process equations so that they could master any exam or homework. The overall failure rates began to drop by 40%. Researchers found it interesting that students who attended SI in these courses applied the learned strategies to upper-level mathematics courses and passed them at a higher rate than their colleagues who did not participate in SI.
Author Last Name:	Peters
Author First Name:	Angela
Additional Author:	Mani
:	Daryoushi
Additional Author:	Rasathurai
:	Sumithran
Additional Author:	Greene
:	Monica
Publication Date:	2006
Page Numbers:	1-9
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	12

Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

The Effects of Gender on Elementary-Aged Students' Interest in Technology: A Preliminary Report

Resource Title: The Effects of Gender on Elementary-Aged Students' Interest in Technology: A Preliminary Report

Description/Annotation: This preliminary report discusses a research program proposed to the National Science Foundation to determine how gender affected the learning of and interest in technical topics. It was desired to find a consumer product that was of high interest to girls and one that was of high interest to boys, but neither product should be of high interest to the opposite gendered child. A survey was designed to determine what items were of interest to children in the third and sixth grades. The survey chose 80 common items that most children would be familiar with and would use an engineer in the design or production of the item.

Author Last Name: Stwalley
Author First Name: Carol
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Effects of Personality Type on Engineering Student Performance and Attitudes

Resource Title: The Effects of Personality Type on Engineering Student Performance and Attitudes

Description/Annotation: Longitudinal study utilizing the Myers-Briggs Type Indicator® (MBTI) and an experimental curriculum for 116 chemical engineering students emphasizing active and cooperative learning and inductive presentation of course material. Academic performance and attitudinal measures over the course of the study indicate that the MBTI is a useful tool for helping engineering instructors and advisors to understand their students and to design instruction that can benefit students of all types.

Author Last Name: Felder

Author First Name: R.M.

Additional Author: Felder
: G.N.

Additional Author: Dietz
: E.J.

Publisher: ASEE

Publication Date: 2002

Page Numbers: 3-17

Publication Title: Journal of Engineering Education

Volume: 91

Issue: 1

Source: North Carolina State University

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

The Effects of Systemic Reform on Urban, African American Fifth Grade Students' Attitudes Toward Science

Resource Title: The Effects of Systemic Reform on Urban, African American Fifth Grade Students' Attitudes Toward Science

Description/Annotation: The purpose of this study was to investigate the effectiveness of a National Science Foundation-funded Local Systemic Change grant on fifth grade, urban, African American students' attitudes toward science.

Author Last Name: Weinburgh

Author First Name: Molly H.

Publication Date: 2003

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9

Issue: 1

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Emancipated Organization

Resource Title: The Emancipated Organization

Description/Annotation: An interview with Kim Campbell, a woman who has shattered glass ceilings by serving as Canada's first prime minister and minister of national defense, and many other distinguished accomplishments. She lectures extensively on gender and leadership, and shares in this interview her views on the male business culture and the costs of excluding women from executive positions. For women and men in the workplace and industry leaders.

Author Last Name: Morse

Author First Name: Gardiner

Publisher: Harvard Business School Publishing

Publisher Location: Boston, MA

Publication Date: 2002, Sept

Page Numbers: 1-4
Publication Title: Harvard Business Review
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Interviews Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Career Factors](#) » [Leadership & Management Career Factors](#) » [Organizational Culture](#)

The Emergence of Gendered Participation Styles in Science-Related Discussions: Implications for Women's Place in Science

Resource Title: The Emergence of Gendered Participation Styles in Science-Related Discussions: Implications for Women's Place in Science

Description/Annotation: Drawing on data from a large ethnographic study of a plant science laboratory at a major land-grant research institution, this paper explores how gendered styles of participation emerge in interaction and shape the direction and outcome of discussions. The authors finds that gendered participation styles have consequences for individual participants in that they shape communication in ways that tend to benefit men and hinder women.

Author Last Name: Gunter
Author First Name: Ramona
Publication Date: 2009
Page Numbers: 53-75
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

The Engineer of 2020: Visions of Engineering in the New Century

Resource Title:	The Engineer of 2020: Visions of Engineering in the New Century
Description/Annotation:	What will happen over the next several decades in the engineering field? This book attempts to look at the engineering field, engineering education, and what types of innovation and changes must occur to stay competitive and current. The researchers look at different scenarios to construct probable predictions on whether the engineering field can shape its own future. Several items are outlined to give direction and ideas to the engineering field to determine a vision and be proactive in preparing for the future. Ideal for academics, industry leaders, policy makers, and leaders in the engineering field.
Author Last Name:	NAE
Publisher:	The National Academies Press
Publisher Location:	Washington, D.C.
Publication Date:	2004
Page Numbers:	1-118
Source:	NAE
Source Type:	Partial text, Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#)

The Engineering “Pipeline” Metaphor and the Careers of Female Deans of Engineering

Resource Title:	The Engineering “Pipeline” Metaphor and the Careers of Female Deans of Engineering
Description/Annotation:	This paper discusses how interviews of women engineering deans illustrate the limitations of the pipeline metaphor for describing the careers of female engineering academics. The author interviewed 21 female engineering deans since 2002 for profiles published in SWE, Magazine of the Society of Women Engineers.

After the profiles were published, the author compiled all the responses and coded them to identify themes that emerged across the interviews.

Author Last Name: Layne
Author First Name: Peggy
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development](#)

The Equity Equation: Fostering the Advancement of Women in the Science, Mathematics, and Engineering

Resource Title: The Equity Equation: Fostering the Advancement of Women in the Science, Mathematics, and Engineering

Description/Annotation: This work is a comprehensive review of decades of studies on women in science, mathematics and engineering from K-12 through industry. This analysis offers a review of studies covering many areas: K-12 through education in the scientific disciplines through industry and career, including socioeconomic status, race, class, physical and learning disabilities and sexual orientation. This work is a valuable guide to studies and offers analysis and recommendations useful to guide policy, programs and future work in these areas. It is also useful for women in science, mathematics and engineering as it discusses barriers to success and institutional attitudes and structure that may have an effect. The work covers a very wide range of relevant topics.

Author Last Name: Davis
Author First Name: Cinda-Sue
Additional Author: Ginorio
:
Additional Author: Hollenshead

: Carol S.
Additional Author: Lazarus
: Barbara B.
Additional Author: Rayman
: Paula M.
Publisher: Jossey-Bass
Publisher Location: San Francisco
Publication Date: 1996
Page Numbers: 1-353
Database Name: JosseyBass
Source Type: Description, TOC, Reviews, Available for sale

Resource Type Categories: Book Topical Categories: Cultural Influences Educational Factors Cultural Influences » Gender Diversity Educational Factors » Retention

The Evidence for Discrimination: A Review of Concepts

Resource Title: The Evidence for Discrimination: A Review of Concepts
Description/Annotation: Succinct powerpoint highlighting key issues in gender discrimination with supporting research for each theme. Topics include tradition versus illegal bias, gender schema theory, accumulation of advantage/disadvantage, stereotype threat, glass ceiling, mommy track, occupational segregation, and the value of diversity in learning and work.
Author Last Name: Chubin
Author First Name: Darly E.
Additional Author: Sevo
: Ruta
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 35
Source: Momox

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

The EXPLORE Program - Introducing High School Women to EET

Resource Title: The EXPLORE Program - Introducing High School Women to EET

Description/Annotation: This paper discusses a summer mini-camp for women through the Electrical Engineering Technology Department at Purdue University called the Explore Program. This three-day exploration provides a unique opportunity for exposure to the campus, faculty, and course work. What follows is a summary of the preparations, activities, responsibilities, costs, and results of the first year's experiences. An appendix provides guidelines and a suggested timeline for any other university department wishing to start a similar camp.

Author Last Name: Mattmuller

Author First Name: Melissa

Publication Date: 1996

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

The feminine side of engineering: It's way more than just "Girl Talk!"

Resource Title: The feminine side of engineering: It's way more than just "Girl Talk!"

Description/Annotation: This paper examines some of the barriers common to women considering a career in engineering along with a discussion of how these barriers have been, and continue to be, surpassed. The "glass ceiling," a metaphorical barrier that is often seen to prevent qualified women from advancing to leadership positions in science and engineering, is discussed. Effective methods and strategies that have been developed by various professional organizations are also shared.

Author Last Name: Larkin
Author First Name: T.L.
Additional Author: Quinn
: C.M.
Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

The GALILEA Program New Curricula for Engineering and Natural Sciences

Resource Title: The GALILEA Program New Curricula for Engineering and Natural Sciences

Description/Annotation: This paper discusses the GALILEA program, whose goal is to design and implement innovative new undergraduate courses that attract a gender-balanced ratio of students at the Berlin Institute of Technology. This article describes the design and implementation of the bachelor course of "Natural Sciences in the Information Society", the first of the GALILEA courses starting in winter term 2007/08. Its goals and innovations are illustrated in detail.

Author Last Name: Jeschke
Author First Name: Sabina
Additional Author: Dahlmann
: Nina

Additional Author: Elsner
:
Additional Author: Natho
:
Additional Author: Schroder
:
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: Research Gate
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

The Gender and Race-Ethnicity of Faculty in Top Science and Engineering Research Departments

Resource Title: The Gender and Race-Ethnicity of Faculty in Top Science and Engineering Research Departments

Description/Annotation: This study examines the gender and racial-ethnic composition of faculty in top research departments for science and engineering (S&E) disciplines. There are critical masses of at least 15% women in top research departments in biological sciences, psychology, and social sciences but not in physical sciences and engineering. Blacks and Hispanics together make up only 4.1% of the faculty in our study. Black and Hispanic females are the most poorly represented groups; together, they make up only 1% of the faculty in top S&E research departments. For most S&E disciplines, less than 15% of full professors in top research departments are women or non-Whites.

Author Last Name: Beutel
Author First Name: Ann M.
Additional Author: Nelson
:
Donna J.
Publication Date: 2005

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Issue: 4
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

The Gender Differences: Hispanic Females and Males Majoring in Science or Engineering

Resource Title: The Gender Differences: Hispanic Females and Males Majoring in Science or Engineering

Description/Annotation: This paper discusses a study which interviewed 22 Hispanic students majoring in science or engineering. Besides the themes that emerged with all 22 Hispanic students, there were definite differences between the female and male Hispanic students: role and ethnic identity confusion, greater college preparation, mentoring needed, and the increased participation in enriched additional education programs by the female Hispanic students.

Author Last Name: Brown
Author First Name: Susan Wightman
Publication Date: 2008
Page Numbers: 205-223
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 2
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

The Gender Factory: The Apportionment of Work in American Households

Resource Title:	The Gender Factory: The Apportionment of Work in American Households
Description/Annotation:	Discussion of division of household work in family members.
Author Last Name:	Berk
Author First Name:	S. F.
Publisher:	Plenum Press
Publication Date:	1985
Page Numbers:	251
Source:	JSTOR
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

The Gender Gap in Advanced Math and Science Course Taking: Does Same-Sex Education Make a Difference?

Resource Title:	The Gender Gap in Advanced Math and Science Course Taking: Does Same-Sex Education Make a Difference?
Description/Annotation:	This report examines a large representative sample of Israeli Jewish high school students to explore differences between coeducational and same-sex schools in advanced math and science courses. Results suggest that girls at all-female state religious schools did not differ from girls at coeducational state schools in placement in advanced math, physics and biology courses. However, girls at all-female religious schools took advanced computer science courses at a much higher rate than girls at coeducational schools.

Author Last Name: Feniger
Author First Name: Yariv
Publisher: Springer
Publication Date: 2011, Nov
Page Numbers: 670-679
Publication Title: Sex Roles
Volume: 65
Issue: 9-10
Source: SpringerLink
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#)

The Gender Similarities Hypothesis

Resource Title: The Gender Similarities Hypothesis
Description/Annotation: A study of 46 meta-analyses asserting that males and females are similar on most psychological variables. Gender differences exist, but vary in magnitude based on age and context.
Author Last Name: Shibley Hyde
Author First Name: Janet
Publisher: American Psychological Association, Inc.
Publisher Location: Washington, D.C.
Publication Date: 2005, Sep
Page Numbers: 581-592
Publication Title: American Psychologist
Volume: 60
Issue: 6
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors](#)

The Gender Wage Gap: 2009

Resource Title:	The Gender Wage Gap: 2009
Description/Annotation:	This resource from the Institute for Women's Policy Research is a brief two-page summary of data on the gendered wage gap as of 2007. Discusses the current gap and the trends in earnings by gender.
Author Last Name:	Drago
Author First Name:	Robert
Additional Author:	Williams
:	Claudia
Publisher:	Institute for Women's Policy Research
Publisher Location:	Washington, DC
Publication Date:	2010, Sep
Page Numbers:	2
Source:	IWPR
Source Type:	Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors Career Factors](#) » [Salary](#)

The Gender Wage Gap: An Explanation of Men's Elevated Wage Entitlement

Resource Title:	The Gender Wage Gap: An Explanation of Men's Elevated Wage Entitlement
Description/Annotation:	Study conducted on undergraduates to test men's reactions when they received gendered threats to their task abilities. Perceptions

of wage entitlement differ between women and men such that men are more likely to feel worthy of higher pay.

Author Last Name: Hogue
Author First Name: Mary
Additional Author: Yoder
:
Additional Author: Singleton
:
Publisher: Springer
Publisher Location: New York, NY
Publication Date: 2007, May
Page Numbers: 573-579
Publication Title: Sex Roles
Volume: 56
Issue: 38604
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Salary Individual Beliefs and Behaviors](#) » [Self-perception](#)

The Girls' Guide to the SAT: Tips and Techniques for Closing the Gender Gap

Resource Title: The Girls' Guide to the SAT: Tips and Techniques for Closing the Gender Gap

Description/Annotation: This 237-page book gives an overview of the gender gap in SAT scores and offers tips to help girls overcome the gap. Rather than simply reviewing test content--math and English--the authors offer a guide to the test itself, helping test-takers to think more like test-writers.

Author Last Name: Freer

Author First Name: Alexandra
Additional Author: Foley
: Ron
Publisher: Princeton Review
Publisher Location: New York
Publication Date: 2003
Page Numbers: 237
Source: Princeton Review
Database Name: Google Books
Source Type: Preview, Available for Purchase

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors » Stereotype Threat on Testing](#)

The Glass Cliff: Evidence that Women are Over-Represented in Precarious Leadership Positions

Resource Title: The Glass Cliff: Evidence that Women are Over-Represented in Precarious Leadership Positions

Description/Annotation: This study examines the phenomenon of the "glass cliff" in which women leaders are given leadership positions in risky situations which places them at a higher risk of failure. The authors argue that women are not being given equal opportunities for advancement, rather they are given lesser positions than men. The way women leaders are evaluated is examined and suggestions for further related research is proposed. For women in the workplace.

Author Last Name: Ryan
Author First Name: Michelle K.
Additional Author: Haslam
: S. A.
Publisher: Wiley-Blackwell
Publisher Location: Oxford, UK
Publication Date: 2005

Page Numbers: 81-90
Publication Title: British Journal of Management
Volume: 16
Issue: 2
Source: ATN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

The Green Engineer: Engineering Careers to Save the Earth

Resource Title: The Green Engineer: Engineering Careers to Save the Earth

Description/Annotation: This 144-page book presents the field of green engineering and discusses designing a more thoughtful future that considers people and a healthy planet as much as the bottom line. The book presents the abundant opportunities in solar, wind, hydropower, bio, geothermal and ocean energy, and about the opportunities creating greener transportation. The book also discusses how engineers are involved in creating "healthy" buildings and houses; natural resources management; and protecting our air, food and water supplies.

Author Last Name: Baine

Author First Name: Celeste

Publisher: Engineering Education Service Center (EESC)

Publisher Location: Springfield, OR

Publication Date: 2012, May

Page Numbers: 1-144

Source: Amazon

Source Type: Abstract/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Homecoming of American College Women: The Reversal of the College Gender Gap

Resource Title:	The Homecoming of American College Women: The Reversal of the College Gender Gap
Description/Annotation:	In this working paper, the authors report a study of the changes to the gender gap in college attendance between 1950s and the 1990s. The authors discuss the reversal of the gender gap in bachelor's degrees received, with women now accounting for the majority of graduates with bachelor's degrees as of 2006. The authors also discuss the narrowing of the achievement gender gap in math and science between 1972 and 1992 and the impact of the increased marriage age for women, which allowed more women to obtain degrees and become more serious students.
Author Last Name:	Goldin
Author First Name:	Claudia
Additional Author:	Katz
:	Lawrence
Additional Author:	Kuziemko
:	Ilyana
Publisher:	National Bureau of Economics Research
Publisher Location:	Massachusetts, MA
Publication Date:	2006
Source:	NBER
Source Type:	Abstract, Available for Purchase, Digest

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

The impact of elements of institutional culture on the enrollment of women in engineering

Resource Title: The impact of elements of institutional culture on the enrollment of women in engineering

Description/Annotation: This poster was presented at the NSF 2008 HRD Joint Annual Meeting in Washington, DC. The poster contains the hypothesis, methods, results, and recommendations of a study seeking to identify elements of the departmental and collegiate cultures that foster or hinder the motivation of undergraduate females to persist in engineering and pursue engineering careers.

Author Last Name: Creamer

Author First Name: E. G.

Additional Author: Burger

: C. J.

Additional Author: Meszaros

: P.S.

Publisher: Virginia Polytechnic Institute and State University

Publisher Location: Blacksburg, VA

Publication Date: 2008

Source: Virginia Polytechnic Institute and State University

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Impact of Gender on the Review of the Curriculum Vitae of Job Applicants and Tenure Candidates: A National Empirical Study

Resource Title: The Impact of Gender on the Review of the Curriculum Vitae of Job Applicants and Tenure Candidates: A National Empirical Study

Description/Annotation: A 20-page report on an empirical study examine factors that affect evaluation of academic job applicants and tenure candidates. Curriculum vitae documents were sent to male and female academic psychologists with either a traditional male name or traditional female name, but each CV was from the same individual at two points in her career. Ultimately, the study indicates that the CVs of the applicants were evaluated differently due to perceived gender of the applicant.

Author Last Name: Steinpreis
Author First Name: Rhea E.
Additional Author: Anders
:
Katie A.
Additional Author: Ritzke
:
Dawn
Publication Date: 1999
Page Numbers: 509-528
Publication Title: Sex Roles: A Journal of Research
Volume: 41
Issue: 7-8
Source: SpringerLink
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

The Impact of Students' Life Experiences on Program Retention: A Study of Female Engineering Students in Mexico

Resource Title: The Impact of Students' Life Experiences on Program Retention: A Study of Female Engineering Students in Mexico

Description/Annotation: The purpose of this study was to identify why female students remain in and graduate from engineering schools in Mexico. The study sought to understand and describe the perceptions of women engineering students in Mexico regarding the personal, institutional, and cultural characteristics that help them persist in their programs.

Author Last Name: Villa
Author First Name: Carmen
Additional Author: Sandlin
:
Jennifer

Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Impact of Undergraduate Research in SEM Persistence: A Retrospective Study of Dartmouth College Science Alumnae

Resource Title: The Impact of Undergraduate Research in SEM Persistence: A Retrospective Study of Dartmouth College Science Alumnae

Description/Annotation: In 1997, the Women in Science Project (WISP) embarked on a major research effort, the Dartmouth College Women in Science Alumnae Survey. The focus of the study was on women in the twenty-four graduating classes of 1973 through 1996 who majored in science, math, and engineering while at Dartmouth to assess factors affecting their persistence in STEM in education and the workforce.

Author Last Name: Char

Author First Name: Cynthia A.

Additional Author: Pavone

:

Additional Author: Weaver

:

Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)

Publication Date: 2000

Page Numbers: 6

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) »
[Retention](#)

The Impact of Vouchers on the Science and Mathematics Achievement of Elementary Students in a Majority African American Public School District

Resource Title: The Impact of Vouchers on the Science and Mathematics Achievement of Elementary Students in a Majority African American Public School District

Description/Annotation: This article presents the results of evaluating test data from students living within the city boundaries of Cleveland, Ohio. In Cleveland, a limited number of low-socioeconomic status students can receive publicly funded vouchers. Data were analyzed using multivariate and univariate techniques.

Author Last Name: Boone

Author First Name: William J.

Additional Author: Metcalf

: Kim K.

Additional Author: Muller

: Patricia A.

Publication Date: 2001

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 7

Issue: 4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Admissions](#) [Bias](#) [Educational Factors](#)

The Importance of Community in Building Diversity

Resource Title:	The Importance of Community in Building Diversity
Description/Annotation:	This newsletter article examines the effects of communities on building diversity in college students. The author looks at several different programs and discusses how they were successful in building diversity through the community developed in the program. The author suggests that although all students benefit from good teaching behaviors, students from underrepresented groups benefit even more. Interesting research for faculty and students in an undergraduate setting.
Author Last Name:	Murphy
Author First Name:	Teri J.
Publication Date:	2003, Summer
Page Numbers:	2-5
Publication Title:	Mathematicians and Education Reform Forum Newsletter: Special Issue on Increasing the Diversity of Students in Mathematics
Volume:	15
Issue:	3
Source:	University of Oklahoma
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical](#)
Categories: [Cultural Influences Individual Beliefs and Behaviors](#) » [Family & Peers Cultural Influences](#) »
[Gender Diversity Individual Beliefs and Behaviors](#)

The Importance of Field in Understanding Persistence Among Science And Engineering Majors

Resource Title:	The Importance of Field in Understanding Persistence Among Science And Engineering Majors
Description/Annotation:	This study revisits an earlier report to explore the relative impact of gender on persistence when field of major is held constant, drawing on survey responses from 285 students in required biology and engineering courses. The author argues two points: that effects of field on students' persistence are often

misinterpreted as gender effects and that gender is too often understood in the narrow sense of students' sex. The author finds that when field is taken into account, students' sex has little explanatory power for understanding persistence rates. In contrast, students' positive experiences with and positive attitudes about gender equity significantly enhance commitments to science and engineering majors, advanced degrees, and careers. The results suggest the need for field-specific interventions to promote the advancement of undergraduate women in science and engineering.

Author Last Name: Wyer
Author First Name: Mary
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

The Influence of Computer-based Model's Race and Gender on Female Students' Attitudes and Beliefs Towards Engineering

Resource Title: The Influence of Computer-based Model's Race and Gender on Female Students' Attitudes and Beliefs Towards Engineering

Description/Annotation: This study explored the use of interface agents, anthropomorphic, 3D-animated computer characters that provide teaching or mentoring within a computer-based learning environment, to encourage young Black and White women to pursue careers in engineering. Researchers hypothesized that computer-based models that matched young women in terms of their race and gender would be the most effective in positively influencing their interest, self-efficacy, and stereotypes about engineering.

Author Last Name: Rosenburg-Kima
Author First Name: Rinat B.
Additional Author: Plant
:
E. Ashby
Additional Author: Doerr
:
Celeste E.
Additional Author: Baylor
:
Amy L.
Publication Date: 2010, Jan
Page Numbers: 35-44
Publication Title: Journal of Engineering Education
Volume: 99
Issue: 1
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-](#)
[perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Influence of Gender on Attitudes, Perceptions, and Uses of Technology

Resource Title: The Influence of Gender on Attitudes, Perceptions, and Uses of Technology

Description/Annotation: This study investigates whether gender has an effect on students' attitudes toward, and their uses of, technology. Data were collected from 59 sixth grade students to examine their attitudes toward and uses of technology by means of The Computer Survey (TCS), computer logs, interviews, classroom observations, field notes, and student work. One of the major findings of the study was that gender differences in attitudes, perceptions, and uses of computers were not found to be significant. The results of this study indicate that gender does affect students' attitudes toward technology for the participants of this study.

Author Last Name: Bain
Author First Name: Connie D.
Additional Author: Rice
:
Margaret L.
Publication Date: 2003
Page Numbers: 119-132
Publication Title: Journal of Research on Technology in Education
Volume: 39
Issue: 2
Source: ERIC
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Influence of Hands-On Female Student Project Teams on the Confidence of Women Engineering Students

Resource Title: The Influence of Hands-On Female Student Project Teams on the Confidence of Women Engineering Students

Description/Annotation: This paper discusses the EmpoWER (Empowering Women at Embry Riddle) program to attract and retain young girls to the engineering field. The EmpoWER project has the objective of increasing the number of women at all levels, including undergraduate students, graduate students and faculty. A component of this project is a hands-on all-female student design project to provide a concrete representation of women engineers to prospective female students.

Author Last Name: Davids
Author First Name: Lisa
Additional Author: Steinhauer
:
Heidi

Additional Author: White
:
Darris
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Mentoring Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Influence of Laboratory Instruction on Science Achievement and Attitude Toward Science across Gender Differences

Resource Title: The Influence of Laboratory Instruction on Science Achievement and Attitude Toward Science across Gender Differences

Description/Annotation: This study investigated the use of a hands-on laboratory program to improve attitudes toward science and increase achievement levels in science knowledge among students in a ninth grade physical science course. An objective final examination measured achievement in science knowledge, and a Q sort survey measured attitude toward science. The findings showed that students with regular laboratory instruction scored significantly higher on achievement in science knowledge than those without laboratory instruction, girls with regular laboratory instruction scored significantly higher on achievement in science knowledge than those without laboratory instruction, and girls and boys within the treatment group did not differ significantly on achievement in science knowledge. No significant differences were reported in attitude toward science between or within groups.

Author Last Name: Freedman
Author First Name: Michael P.
Publication Date: 2002
Publication Title: Journal of Women and Minorities in Science and Engineering
Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Influence of Social Identity and Personality on Outcomes or Cultural Diversity in Teams

Resource Title: The Influence of Social Identity and Personality on Outcomes or Cultural Diversity in Teams

Description/Annotation: Study to test the influence of social identity and personality on work outcomes when working on diverse teams. Characteristics like emotional stability and flexibility were tested for their effect on work outcomes on high diversity teams and low diversity teams. For industry and the workforce.

Author Last Name: Van Der Zee

Author First Name: Karen

Additional Author: Atsma
: Nelleke

Additional Author: Brodbeck
: Felix

Publisher: Sage Publications

Publisher Location: Thousand Oaks, CA

Publication Date: 2004

Page Numbers: 283-303

Publication Title: Journal of Cross-Cultural Psychology

Volume: 35

Issue: 3

Source: Sage

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

The Influence of Spatial Ability on Gender Differences in Mathematics College Entrance Test Scores Across Diverse Samples

Resource Title: The Influence of Spatial Ability on Gender Differences in Mathematics College Entrance Test Scores Across Diverse Samples

Description/Annotation: This nine-page article contains the results of the Vandenberg mental rotation test administered to 760 adolescents and young adults. Male students outperformed female students in the high ability group, but not in the low ability group. The authors suggest that spatial ability may account for gender differences in math aptitude.

Author Last Name: Casey

Author First Name: Beth

Additional Author: Nuttall
: Ronald

Additional Author: Pezaris
: Elizabeth

Additional Author: Benbow
: Camilla

Publisher: American Psychological Association, Inc.

Publication Date: 1995, Jul

Page Numbers: 697-705

Publication Title: Developmental Psychology

Volume: 31

Issue: 4

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

The Information Age versus Gender Equity? Technology and Values in Education for Library and Information Science

Resource Title:	The Information Age versus Gender Equity? Technology and Values in Education for Library and Information Science
Description/Annotation:	This discussion looks at the changing character of education for librarianship in the Information Age, emphasizing faculty and students in the emerging curriculum. Relative support for Library Science and for Information Science courses, measured using faculty distribution in the two areas, is examined.
Author Last Name:	Hildenbrand
Author First Name:	Suzanne
Publication Date:	1999
Page Numbers:	669-685
Publication Title:	Library Trends
Volume:	47
Issue:	4
Source:	University of Illinois
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Interaction of Pedagogical Approach, Gender, Self-Regulation, and Goal Orientation Using Student Response System Technology

Resource Title:	The Interaction of Pedagogical Approach, Gender, Self-Regulation, and Goal Orientation Using Student Response System Technology
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Description/Annotation: This research compares a behaviorally based approach for using electronic student response system (SRS) technology with a metacognitive-oriented approach to determine effects on attendance, preparation for class, and achievement. Also examined are the interaction effects of pedagogical approach with self-regulatory and motivational characteristics of students.

Author Last Name: Edens

Author First Name: Kellah M.

Publication Date: 2006

Page Numbers: 161-177

Publication Title: Journal of Research on Technology in Education

Volume: 41

Issue: 2

Source: ERIC

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

The Issue of Gender Equity in Computer Science : What Students Say

Resource Title: The Issue of Gender Equity in Computer Science : What Students Say

Description/Annotation: This paper discusses the under-representation and poor retention of women in computing courses at Victoria University.

Author Last Name: Miliszewska

Author First Name: Iwona

Additional Author: Barker

: Gayle

Additional Author: Henderson

: Fiona

Additional Author: Sztendur
:
Publication Date: 2006
Publication Title: Journal of Information Technology Education
Source Type: Abstract, Available for sale
Link to Additional Source
Material:

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Issue of Gender in Elementary and Secondary Education

Resource Title: The Issue of Gender in Elementary and Secondary Education
Description/Annotation: A 66-page review of research and literature on the topic of gender issues in elementary and secondary education, including a brief history of education in the U.S., textbook portrayals of gender, the impact of instructional materials, administrative efforts toward equity, and equity in teacher-student interaction. Also includes a discussion regarding the history of the intellectual gender difference debate, and a section on reform of the educational system and teacher education to promote gender equity. Extensive 19 page bibliography.

Author Last Name: Sadker
Author First Name: Myra
Additional Author: Sadker
:
Additional Author: Klein
:
Publication Date: 1991
Page Numbers: 269-334
Publication Title: Review of Research in Education
Volume: 17
Source: JSTOR

Source Type: Full text

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Ivory Ceiling of Service Work

Resource Title: The Ivory Ceiling of Service Work

Description/Annotation: This article looks at the issue of women academic faculty being disproportionately pulled into service work as it affects promotion to full professor status. The article proposes two related factors that account, in part, for the underrepresentation of women as full professors: vague criteria for promotion on a university level and different time allocation at work, with women spending more time on teaching, mentoring, and service and men spending more time on research activities despite research suggesting that both men and women faculty value research equally. This article does propose that women's focus on service may not be fully negative as women are more likely to serve as department chairs earlier in their careers.

Author Last Name: Misra

Author First Name: Joya

Additional Author: Lundquist

: Jennifer Hickes

Additional Author: Holmes

: Elissa

Additional Author: Angiomavritis

: Stephanie

Publisher: AAUP

Publisher Location: Washington, D.C.

Publication Date: 2011, Jan-Feb

Publication Title: Academe Online

Source: AAUP

Source Type: Full text

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Career Factors Career Factors » Leadership & Management Career Factors » Professional Development Career Factors » Retention Career Factors » Tenure Policies & Practices

The Lara Phenomenon: Powerful Female Characters in Video Games

Resource Title:	The Lara Phenomenon: Powerful Female Characters in Video Games
Description/Annotation:	Study of sex and race of video game characters. Findings indicate that women are portrayed as leading characters as often as male characters, albeit sexualized. All heroes in games are portrayed as White.
Author Last Name:	Jansz
Author First Name:	Jeroen
Additional Author:	Martis
:	Raynel G.
Publisher:	Springer Netherlands
Publisher Location:	Rotterdam, Netherlands
Publication Date:	2007, Feb
Page Numbers:	141-148
Publication Title:	Sex Roles
Volume:	56
Issue:	3-4
Source:	SpringerLink
Source Type:	Full text

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness

The Laser Academy: An After-School Program to Promote Interest in Technology Careers

Resource Title: The Laser Academy: An After-School Program to Promote Interest in Technology Careers

Description/Annotation: Study of an after-school program in Queensborough Community College of the City University of New York for 5 years. The program focus is high-school students who do not excel in science and math courses and are unsure about a college career; underrepresented blacks, Hispanics, and women. Introduces these students to high-tech career options. Useful resource for Community College or Vocational outreach efforts.

Author Last Name: Bieber

Author First Name: Amy E.

Additional Author: Marchese

: Paul

Additional Author: Engelberg

: Don

Publisher: Springer

Publisher Location: New York, NY

Publication Date: 2005, Mar

Page Numbers: 135-142

Publication Title: Journal of Science Education and Technology

Volume: 14

Issue: 1

Source: Springer

Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Limits of Intervention: Lessons from Eureka, a Program to Retain Students in Science and Math-related Majors

Resource Title: The Limits of Intervention: Lessons from Eureka, a Program to Retain Students in Science and Math-related Majors

Description/Annotation: This journal article studied the academic lives of 53 women involved in a 2 year math and science intervention program called Eureka Program at Brooklyn College. Success factors were described, including high self-esteem, increased contact with mentors (faculty and peer), higher college math grades, and more. Interesting information for undergraduate faculty and academics responsible for developing similar programs.

Author Last Name: Miller

Author First Name: Alice

Additional Author: Silver

: Catherine B.

Publisher: National Association for Women Deans, Administrators & Counselors

Publisher Location: Washington, D.C.

Publication Date: 1992, Summer

Page Numbers: 21-29

Publication Title: Initiatives

Volume: 55

Issue: 2

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Links Between Parent Behaviors and Boys' and Girls' Science Achievement Beliefs

Resource Title: The Links Between Parent Behaviors and Boys' and Girls' Science Achievement Beliefs

Description/Annotation: This study examined whether parental involvement in children's science schoolwork varies for boys and girls, and how these behaviors relate to children's science achievement beliefs at the

end of a school year. Findings indicated that only parents' encouragement of science interest varied by child gender; mothers' encouragement positively predicted girls' self-assessments of science ability at the end of the year, but was a negative estimator of boys' self-assessments.

Author Last Name: Bhanot
Author First Name: Ruchi T.
Additional Author: Jovanovic
:
Publication Date: 2009
Page Numbers: 42-59
Publication Title: Applied Developmental Science
Volume: 13
Issue: 1
Source: Taylor and Francis
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family/Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

The Loss of Women from Science, Mathematics, and Engineering Undergraduate Majors: An Explanatory Account

Resource Title: The Loss of Women from Science, Mathematics, and Engineering Undergraduate Majors: An Explanatory Account

Description/Annotation: This 37-page paper reports on a study of reasons that women leave science, mathematics, and engineering majors in undergraduate years. Examines the loss of confidence in scientific abilities and the reasons for this loss.

Author Last Name: Seymour
Author First Name: Elaine
Publication Date: 1995

Page Numbers: 437-473
Publication Title: Science Education
Volume: 79
Issue: 4
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Madame Curie Complex: The Hidden History of Women in Science

Resource Title: The Madame Curie Complex: The Hidden History of Women in Science

Description/Annotation: Why are the fields of science and technology still considered to be predominantly male professions? The Madame Curie Complex moves beyond the most common explanations—limited access to professional training, lack of resources, exclusion from social networks of men—to give historical context and unexpected revelations about women's contributions to the sciences. Exploring the lives of Jane Goodall, Rosalind Franklin, Rosalyn Yalow, Barbara McClintock, Rachel Carson, and the women of the Manhattan Project, Julie Des Jardins considers their personal and professional stories in relation to their male counterparts—Albert Einstein, Robert Oppenheimer, Enrico Fermi—to demonstrate how the gendered culture of science molds the methods, structure, and experience of the work. With lively anecdotes and vivid detail, The Madame Curie Complex reveals how women scientists have often asked different questions, used different methods, come up with different explanations for phenomena in the natural world, and how they have forever transformed a scientist's role.

Author Last Name: Des Jardins
Author First Name: Julie
Publisher: The Feminist Press at CUNY
Publisher Location: New York, NY

Publication Date: 2010, Mar 1
Page Numbers: 352
Source: The Feminist Press
Source Type: Author video, Introduction, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Leadership & Management Career Factors » Professional Development

The malleability of spatial skills: A meta-analysis of training studies

Resource Title: The malleability of spatial skills: A meta-analysis of training studies

Description/Annotation: Meta-analysis of 217 research studies on spatial skills interventions. Findings confirm that spatial skills are malleable and transferable to other fields.

Author Last Name: Uttal

Author First Name: David H.

Additional Author: Meadow

: Nathaniel G.

Additional Author: Tipton

: Elizabeth

Additional Author: Hand

: Linda L.

Additional Author: et al.

Publisher: Psychological Bulletin

Publication Date: 2013 Mar

Page Numbers: 352-402

Publication Title: Psychological Bulletin

Volume: 139

Issue: 2

Source: Psychological Bulletin

Source Type: [Link to abstract](#)

Connected Advocates: [Projects & Programs](#) » [ENGAGE in Engineering](#) Resource Type
Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) »
[Curriculum Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Pedagogy & Instruction](#)

The Matilda Effect in Science: Awards and Prizes in the US, 1990s and 2000s

Resource Title: The Matilda Effect in Science: Awards and Prizes in the US, 1990s and 2000s

Description/Annotation: This 13-page journal article from "Social Studies of Science" outlines the research on gender bias in evaluations of research and analyzes data from 13 STEM disciplinary societies. Results indicate that while women's receipt of professional awards and prizes has increased in the past two decades, men continue to win a higher proportion of awards for scholarly research than expected based on their representation in the nomination pool. The article analyzes the relationship of external social factors to women's science careers and helps to explain why women are severely underrepresented as winners of science awards. The article abstract is available, and the full article is available for purchase.

Author Last Name: Lincoln

Author First Name: Anne E.

Additional Author: Pincus

: Stephanie

Additional Author: Koster

: Janet Bandows

Additional Author: Leboy

: Phoebe S.

Publisher: SAGE Publications

Publisher Location: Thousand Oaks, CA

Publication Date: 2012, Apr

Page Numbers: 307-320

Publication Title: Social Studies of Science
Volume: 42
Issue: 2
Source: SAGE Publications
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

The Meaning of College in the Lives of American Women: The Past One-Hundred Years

Resource Title: The Meaning of College in the Lives of American Women: The Past One-Hundred Years

Description/Annotation: This working paper discusses a study conducted with three cohorts of American women to assess the impacts of college and the changing norms about career and family. Ultimately, the paper discusses both the reasons for the changes in choices between family and career and the overall expansion of college education of women post-WWII.

Author Last Name: Goldin
Author First Name: Claudia
Publisher: National Bureau of Economics Research
Publisher Location: Massachusetts, MA
Publication Date: 1992
Source: NBER
Source Type: Abstract, Available for Purchase

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [FamilyCareer Factors](#) » [Family Issues](#)

The Measurement of Work/Life Tension: Recommendations of a Virtual Think Tank

Resource Title: The Measurement of Work/Life Tension: Recommendations of a Virtual Think Tank

Description/Annotation: A think tank approach to work-family tension was sponsored by the Sloan Work-Family Researchers Electronic Network. The panel developed 50 specific items of measurement for work-family tension and recommended they be incorporated into study of work-life tension. For those organizations or individuals studying work-life balance.

Author Last Name: MacDermid

Author First Name: Shelley M.

Additional Author: Barnett

: Rosalind

Additional Author: Crosby

: Faye

Additional Author: Greenhaus

: Jeffrey

Additional Author: Koblenz et al

: Marci

Publisher: Boston College Center for Work and Family

Publisher Location: Chestnut Hill, MA

Publication Date: 2000

Page Numbers: 1-17

Source: University of Pennsylvania

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Family Individual Beliefs and Behaviors](#) » [Family & Peers Career Factors](#) » [Family Issues Individual Beliefs and Behaviors](#)

The Mentor-Protégé Relationship in Professional Psychology: A Survey of Faculty and Student Attitudes

Resource Title: The Mentor-Protégé Relationship in Professional Psychology: A Survey of Faculty and Student Attitudes

Description/Annotation: A 50-page paper detailing a study on mentorship that was presented at the Annual Meeting of the Southeastern Psychological Association in 1984. The study of psychology doctoral students and faculty were surveyed regarding attitudes about mentoring, with equally positive attitudes by both faculty and students. When surveyed, the majority of students surveyed did not feel that mentorship was available in their department; if available, 94% of students felt that they would participate in a mentorship program.

Author Last Name: Simpson

Author First Name: Nancy

Publication Date: 1984

Page Numbers: 1-50

Publication Title: Paper presented at the Annual Meeting of the Southeastern Psychological Association

Source: SEPA

Database Name: ERIC

Source Type: Full text, Abstract

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

The Michelle R. Clayman Institute for Gender Research, Library

Resource Title: The Michelle R. Clayman Institute for Gender Research, Library

Description/Annotation: The Michelle R. Clayman Institute for Gender Research at Stanford University was founded in 1974 and is devoted to the study of gender and promoting gender equality. The Clayman Institute's Library offers an extensive archive of gender research, available as academic videos, books, research publications, and reports.

Web site Link: [Link to Resource](#)

More: Through a series of workshops, conferences, and fellowships, the Clayman Institute brings together an intellectually diverse group of scholars to provide new insights into the barriers to women's advancement.

Resources: The Library archives gender research available as the following resources:

- Video
- Books
- Reports
- General Resources (Science, Engineering and Technology, and Stanford Sites)

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: The Clayman Institute is a part of Stanford's School of Humanities and Sciences. It receives support from a combination of University funds, endowments, and gifts. A Director appointed by the University works with a Faculty Advisory Board, an Advisory Council and a staff to run the Institute.

Contact E-mail: Gender-email@stanford.edu

Last Update Date: July 23, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

The Michelle R. Clayman Institute for Gender Research, Media Center

Resource Title: The Michelle R. Clayman Institute for Gender Research, Media Center

Description/Annotation: The Michelle R. Clayman Institute for Gender Research at Stanford University was founded in 1974 and is devoted to the study of gender and promoting gender equality. The Clayman Institute's Media Center provides access to an archive of Institute press releases, gender research factsheets, and links to additional Clayman Institute media resources.

Web site Link: [Link to Resource](#)

More: Through a series of workshops, conferences, and fellowships, the Clayman Institute brings together an intellectually diverse group of scholars to provide new insights into the barriers to women's advancement.

Resources: The Media Center includes the following media resource categories:

- Clayman Institute Press Releases
- Factsheets & Reports
- Select Media Mentions
- Other Media Resources

Site Access Details: This site provides information to the general public free of charge. Registration is not required to access information.

Partners and Funding: The Clayman Institute is a part of Stanford's School of Humanities and Sciences. It receives support from a combination of University funds, endowments, and gifts. A Director appointed by the University works with a Faculty Advisory Board, an Advisory Council and a staff to run the Institute. Private gifts are accepted.

Contact E-mail: gender-email@stanford.edu

Last Update Date: July 23, 2013

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Cultural Influences](#) » [Gendered Occupations & Study Choices Career Factors](#) » [Stereotype Threat](#)

The Model Mentor: A Telephone Survey of Mentoring Experiences Among Women Engineering Faculty

Resource Title: The Model Mentor: A Telephone Survey of Mentoring Experiences Among Women Engineering Faculty

Description/Annotation: This paper describes a future study conducted as a telephone survey of mentoring experiences among women engineering faculty. For women engineering faculty members, the following questions were developed: How prevalent is mentoring? What are the defining characteristics of a good, effective mentor? What functions does a mentor perform in a career enhancing mentoring relationship?

Author Last Name: Estkowski

Author First Name: Terri

Additional Author: Bringelson

: Liwana

Additional Author: Bowman

: Mary Ann

Publication Date: 1998
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development](#)

The Myth of the Ideal Worker: Does Doing All The Right Things Really Get Women Ahead?

Resource Title: The Myth of the Ideal Worker: Does Doing All The Right Things Really Get Women Ahead?

Description/Annotation: This 20-page report is the fourth report in Catalyst's longitudinal project, "The Promise of Future Leadership: A Research Program on Highly Talented Employees in the Pipeline", which develops timely reports on the retention and advancement of high potential women and men. This report tackles persistent myths about the gender gap and addresses the question of whether the gender gap persists because women and men adopt different strategies to advance their careers. Findings revealed that men benefited more from adopting proactive strategies. Findings also indicated that when when women did all the things they have been told will help them get ahead, they still advanced less than their male counterparts and had slower pay growth. The full report is available in PDF format.

Author Last Name: Carter
Author First Name: Nancy M.
Additional Author: Silva
:
Christine
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2011, Oct
Page Numbers: 1-20
Source: Catalyst

Source Type: Full Text

Resource Type Categories: Articles/Reports » Web Resources Topical Categories: Career Factors Career Factors » Leadership & Management Career Factors » Professional Development

The NASA Learning Experience for Elementary School Girls – Offering Professional Development that Incorporates an Advocacy Model for K-12 Educators

Resource Title: The NASA Learning Experience for Elementary School Girls – Offering Professional Development that Incorporates an Advocacy Model for K-12 Educators

Description/Annotation: This 16-page paper from the 2012 WEPAN National Conference describes the “NASA Learning Experience for Elementary School Girls,” a women-in-engineering summer program that brings together K-12 educators and their own elementary school-aged students. The conference paper presents preliminary findings from a survey regarding K-12 educators’ perceptions of different scenarios influencing girls’ career choices. Results showed that over half of the educators were unaware of the extent to which gender disparity exists in engineering. The full paper is available in PDF format.

Author Last Name: Gossage

Author First Name: Lily G.

Additional Author: Marayong

: Panadda

Additional Author: Vu

: Kim-Phuong L.

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-16

Source: WEPAN

Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Professional
Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness

The National Coalition for Women & Girls in Education (NCWGE)

Resource Title: The National Coalition for Women & Girls in Education (NCWGE)

Description/Annotation: NCWGE is a non-profit founded in 1975 to advance educational opportunities for women and girls. It supports the development of national education policies that benefit all women and girls, provides a forum to share information and strategies to advance educational equity, advocates for women's and girls' interests on issues regarding Title IX of the Education Amendments of 1972, and monitors federal agencies' implementation of federal education programs.

Web site Link: [Link to Resource](#)

More: Formed in response to concerns over the implementation of 1972's Title IX legislation, the NCWGE advocates for educational equity for women and girls.

Resources: Resources include:

- Reports and Position papers such as Title IX at 35: Beyond the Headlines and NWCGE Recommendations for the Obama Administration
- Information about relevant laws

Site Access Details: The website is publicly accessible.

Partners and Funding: The NCWGE is a membership-based coalition of more than 50 affiliate organizations.

Contact Name: Lisa Maatz

Contact E-mail: maatzl@aauw.org

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

The National Council for Research on Women (NCRW)

Resource Title: The National Council for Research on Women (NCRW)

Description/Annotation: The National Council for Research on Women is a network of over 100 research, advocacy, and policy centers across the United States, but having global reach, to influence public thinking and policy on making the world a more equitable place for girls and women.

Web site Link: [Link to Resource](#)

More: A champion for diversity and public outreach to research and inform the ongoing debate to improve the opportunities for women.

Resources:

- Programs
- Publications and reports
- Find the experts- links to outside organizations
- Archives
- Events
- Global initiatives

Site Access Details: Website has free access to the general public.

Partners and Funding: A network of supporters and partners on several levels, each designed for a different type of group or individual and with different features and benefits. Donations are accepted. Levels of involvement are identified as Council Affiliate, Member Center, Corporate Circle, and Presidents Circle.

Contact Name: Linda Basch

Contact E-mail: lbasch@ncrw.org

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

The National Women's Studies Association

Resource Title: The National Women's Studies Association

Description/Annotation: The National Women's Studies Association has been a leader since 1977 in women's studies for educational and social transformation. The women's studies and gender studies focus on providing opportunities where women can develop their fullest potential in an environment with no oppression. Through publications, professional development activities, and special initiatives, the Association supports and furthers their mission.

Web site Link: [Link to Resource](#)

Resources:

- Publications

- Current initiatives
- Jobs & Opportunities
- Bookstore
- Women's Centers
- Conferences and Calls for Papers
- Awards and Scholarships

Site Access Details: Free access to website to the general public.

Partners and Funding: A non-profit membership association. Individual and corporate memberships available. Accepts donations.

Contact Name: Allison Kimmich, Executive Director

Contact E-mail: allison.kimmich@nwsa.org

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

The Need for Female Role Models in Engineering Education

Resource Title: The Need for Female Role Models in Engineering Education

Description/Annotation: This paper discusses the roles female engineering professors have on female students in engineering and how having a female professor instills higher levels of self confidence in female engineering students.

Author Last Name: Bauer

Author First Name: Ingrid

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 21

Source: WEPAN

Source Type: Full Text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Educational Factors » Faculty Student Interaction

The Neuroanatomy of General Intelligence: Sex Matters

Resource Title:	The Neuroanatomy of General Intelligence: Sex Matters
Description/Annotation:	This eight page report examines the relationship between structural brain variation and general intelligence using vowel-based morphometric analysis and MRI data between men and women. Women were shown to have more white area and less gray matter related to intelligence. Conclusions include that, for similar IQ scores, men and women use different brain regions.
Author Last Name:	Haier
Author First Name:	Richard
Additional Author:	Jung
:	Rex
Additional Author:	Yeo
:	Ronald
Additional Author:	Head
:	Kevin
Additional Author:	Alkire
:	Michael
Publication Date:	2005
Page Numbers:	320-327
Publication Title:	NeuroImage
Volume:	25
Source:	PubMed
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

The new arrival minority: Perceptions of their first-year tertiary programming learning environment

Resource Title: The new arrival minority: Perceptions of their first-year tertiary programming learning environment

Description/Annotation: This article reports the results of semistructured interviews that examined how new-arrival tertiary students studying 1st-year programming perceived their computing learning environments. The study was conducted at three tertiary institutions in Wellington, New Zealand. It was found that the majority of students perceived their learning milieus positively and that maturity and experience were positive mitigating factors on the culture of the computing learning environment. However, for the few younger students who did not enjoy the same personalization and had difficulties with the English language and culture, there are implications for the faculty and administrative staff members of institutions interested in providing positive learning experiences for new arrivals.

Author Last Name: Crump

Author First Name: B.J.

Publication Date: 2004

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Source: CIRTL

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

The New Faculty Member: Supporting and fostering professional development

Resource Title: The New Faculty Member: Supporting and fostering professional development

Description/Annotation: This single-authored book offers an array of practical tools and suggestions to support a new faculty member. In Part 1, Boice identifies the challenges facing the new faculty member; in part 2, he focuses on various strategies to support new faculty; and in part 3, examines department- and university-level structures. Boice offers insight into navigating the many demands on faculty

including transitioning into the department, working towards a teaching style, and writing well.

Author Last Name: Boice
Author First Name: Robert
Publisher: Jossey-Bass Publishers
Publisher Location: San Francisco, CA
Publication Date: 1992
Page Numbers: 1-376
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

The Next Step for Female Scientists

Resource Title: The Next Step for Female Scientists

Description/Annotation: This article from the online "Chronicle of Higher Education" discusses the necessity of a flexible workplace in which having both a family and a career is possible. The author describes current policies and recommends new policies to impede the loss of female scientists from the workforce. According to the article, a critical block to a flexible workplace is that while federal agencies largely finance the graduate students, postdocs, and faculty members who create new scientific breakthroughs, it is universities that determine personnel issues. The article also contains data and statistics on postdoctoral researchers in the United States from recent U.S. national reports.

Author Last Name: Mason
Author First Name: Mary Ann
Publisher: The Chronicle of Higher Education
Publisher Location: Washington, DC
Publication Date: 2012, Feb 13
Publication Title: The Chronicle of Higher Education
Source: The Chronicle of Higher Education

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

The North Carolina State University Women in Science and Engineering Program: A Community for Living and Learning

Resource Title: The North Carolina State University Women in Science and Engineering Program: A Community for Living and Learning

Description/Annotation: This paper discusses the Women in Science and Engineering (WISE) Village, a living and learning community of female scholars developed by the North Carolina State University College of Engineering (COE) and the College of Physical and Mathematical Sciences (PAMS), in partnership with University Housing. This paper describes the process for creating and implementing the WISE Village, the assessment results from the first year of operation of the program and plans for the future.

Author Last Name: Rajala

Author First Name: S.A.

Additional Author: Bottomley

: L.J.

Additional Author: Parry

: E.A.

Additional Author: Cohen

: J.D.

Additional Author: Grant

: S.C.

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

The NSF-ADVANCE Program and the Recruitment and Retention of Women Engineering Faculty at New Mexico State University

Resource Title: The NSF-ADVANCE Program and the Recruitment and Retention of Women Engineering Faculty at New Mexico State University

Description/Annotation: This paper discusses the ADVANCE: Institutional Transformation Program at New Mexico State University, which intends to increase the recruitment, retention, and advancement of women within academia.

Author Last Name: Frehill

Author First Name: Lisa M.

Publication Date: 2005

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

The Offshoring of Engineering: Facts, Unknowns, and Potential Implications

Resource Title: The Offshoring of Engineering: Facts, Unknowns, and Potential Implications

Description/Annotation: This 240-page book from the National Academy of Sciences helps answer many questions about the scope, composition, and motivation for offshoring and considers the implications for the future of U.S. engineering practice, labor markets, education, and

research. This book examines trends and impacts from a broad perspective and in six specific industries - software, semiconductors, personal computer manufacturing, construction engineering and services, automobiles, and pharmaceuticals.

Author Last Name: Committee on the Offshoring of Engineering
Publisher: The National Academies Press
Publisher Location: Washington, DC
Publication Date: 2008
Page Numbers: 1-240
Source: The National Academies Press
Source Type: Abstract/Full Text/Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy

Resource Title: The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy
Description/Annotation: This report seeks to transform education in the United States so that every student reaches higher levels of mathematics and science learning.
Author Last Name: Carnegie Corporation of NY
Additional Author: Institute for Advanced Study
Additional Author: Commission on Mathematics and Science Education
Publication Date: 2009
Publication Title: The Opportunity Equation
Source: Carnegie Corporation / IAS
Source Type: Full text

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) » [US National Reports Articles/Reports](#) » [Web Resources Topical Categories: Educational Factors](#) » [Academic & Social Climate Educational Factors](#) » [Curriculum Educational Factors Educational Factors](#) » [Formal Academic Preparation](#)

The Perceived Importance of Development Relationships on Women's Undergraduates' Pursuit of Science

Resource Title:	The Perceived Importance of Development Relationships on Women's Undergraduates' Pursuit of Science
Description/Annotation:	Using a survey of women science majors, researchers tested the assumption that women mentors and other women guides help women students pursue the sciences. The survey explicitly distinguished among three types of guides: mentors (who provide psychosocial support), sponsors (who provide instrumental support), and role models (who act as examples) encountered before and during college. Researchers found that over 90% of the women had a guide of one type or another, that mentors were most influential to women's pursuit of science, and that guides during college were more influential than guides prior to college. Participants reported having more female than male guides overall, but that some of the most influential guides were men.
Author Last Name:	Downing
Author First Name:	Robert A.
Additional Author:	Crosby
:	Faye J.
Additional Author:	Blake-Beard
:	Stacy
Publication Date:	2005
Page Numbers:	419-426
Publication Title:	Psychology of Women Quarterly
Volume:	29
Issue:	4
Source:	Research Gate
Source Type:	Abstract, Available for sale

[Outside Link to Resource](#)

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Mentoring](#)

The Physics of Star Trek

Resource Title:	The Physics of Star Trek
Description/Annotation:	This 280-page book discusses the science behind the science fiction behind the TV series "Star Trek." Includes discussions about many of the technological keys to the "Star Trek" world, including warp speed engines, inertial dampeners, and transporter beams. Looks at "Star Trek" physics with the wisdom of physicists such as Albert Einstein, Steven Hawking, and Richard Feynman. This book is valuable because it offers an accessible look at physics through the medium of a popular culture phenomenon.
Author Last Name:	Krauss
Author First Name:	Lawrence
Publisher:	Basic Books
Publisher Location:	Philidelphia, PA
Publication Date:	2007
Page Numbers:	280
Source:	Google Books
Source Type:	Summary, Available for Purchase

Resource Type Categories: [Book](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Media & Entertainment](#)

The Power and Peril of Transformative Communication in Enabling Progress in Diversity

Resource Title:	The Power and Peril of Transformative Communication in Enabling Progress in Diversity
Description/Annotation:	One of the most challenging changes an organization can attempt is an effort in the area of diversity. This paper documents the efforts of a corporate diversity network to change the quality of experience for individuals of diverse backgrounds, focusing on transformative communication as a tool to affect change.

Author Last Name: Grimmett
Author First Name: Richard
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

The Power of External Mentors for Women Pursuing Academic Careers in Engineering and Science: Stories of MentorNet ACE and its Protégés and Mentors

Resource Title: The Power of External Mentors for Women Pursuing Academic Careers in Engineering and Science: Stories of MentorNet ACE and its Protégés and Mentors

Description/Annotation: This paper, presented at the 2007 Women in Engineering ProActive Network (WEPAN) Conference, discusses the benefits of building cross-institutional mentoring networks to advance academic career progress for women in science and engineering. The paper also presents MentorNet's Academic Career E-mentoring program, which provides email based mentoring relations with faculty and professionals to help students with their graduate careers. This resource is available in abstract format only.

Author Last Name: Muller
Author First Name: Carol B.
Additional Author: Barney-Smith
:
Additional Author: Elisa H.
Additional Author: Chou-Green
:
Additional Author: Jennifer
Additional Author: Daniels-Race
:
Theda

Additional Author: Drummond
:
Arielle
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2007
Publication Title: Proceedings of the 2007 WEPAN Conference
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

The Precursors and Products of Justice Climates: Group Leader Antecedents and Employee Attitudinal Consequences

Resource Title: The Precursors and Products of Justice Climates: Group Leader Antecedents and Employee Attitudinal Consequences

Description/Annotation: This 35 page research article expands on the work done by others related to justice climates, leadership qualities and job attitudes. This study focuses on three personality traits of leaders (agreeableness, conscientiousness and neuroticism) and their effects on procedural, interpersonal, and informational justice climates. Data analysis supports the authors' hypothesis that job attitudes improved and relationships were stronger when positive justice climates are present, or, in other words, when the organizational culture is positive. Good resource for workplace trainers and those responsible for studying productivity in the workplace.

Author Last Name: Mayer
Author First Name: David M.
Additional Author: Nishi
:
Lisa H.
Additional Author: Schneider

: Benjamin
Additional Author: Goldstein
: Harold
Publisher: Wiley-Blackwell
Publisher Location: Hoboken, NJ
Publication Date: 2007, Nov 13
Page Numbers: 929-963
Publication Title: Personnel Psychology
Volume: 60
Issue: 4
Source: Wiley
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

The Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring Program (PAESMEM)

Resource Title: The Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring Program (PAESMEM)

Description/Annotation: PAESMEM seeks to identify outstanding mentoring efforts that enhance the participation and retention of individuals (including persons with disabilities, women and minorities) who might not otherwise have considered or had access to opportunities in science, technology, engineering, and mathematics (STEM). PAESMEM.net is a virtual community aiming to foster the development of a vibrant national network of STEM mentors.

Web site Link: [Link to Resource](#)

More: PAESMEM is the highest national mentoring award. The award, established in 1966 by the White House through the National Science and Technology Council (NSTC) and the Office of Science

and Technology Policy (OSTP), is administered on behalf of the White House by the National Science Foundation (NSF).

- Resources: PAESMEM.net includes:
- [List of PAESMEM awardees](#)
 - [Resources](#)-- Important publication and web resources of particular interest to the PAESMEM community and other involved in STEM mentoring
 - [News & Announcements](#)
- Site Access Details: This is a publicly accessible site.
- Partners and Funding: PAESMEM.net is supported by NSF.
- Last Update Date: July 28, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

The Prevalence of Gender Stereotyping and Bias: An Overview

- Resource Title: The Prevalence of Gender Stereotyping and Bias: An Overview
- Description/Annotation: Short article about why stereotyping happens and why it is so prevalent. How prevalent is stereotyping in the workplace and, more specifically, how does it affect women especially in male-dominated fields? The "glass cliff" phenomenon is briefly explained. Applicable to anyone in the workplace.
- Author Last Name: Simard
- Author First Name: Caroline
- Publisher: Anita Borg Institute for Women and Technology
- Publisher Location: Palo Alto, CA
- Publication Date: 2009
- Page Numbers: 1-3
- Source: ABI
- Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

The Prevalence of Women in Academic Leadership Positions, and Potential Impact on Prevalence of Women in the Professorial Ranks

Resource Title: The Prevalence of Women in Academic Leadership Positions, and Potential Impact on Prevalence of Women in the Professorial Ranks

Description/Annotation: This paper focuses on women in senior academic leadership positions, exploring the proposition that a higher proportion of women in such strategic positions can facilitate institutional change and improve recruitment, retention, and advancement of women within the professional ranks.

Author Last Name: Bilen-Green

Author First Name: Canan

Additional Author: Froelich

: Karen

Additional Author: Jacobson

: Sarah

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 11

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

The Quiet Crisis: Falling Short in Producing American Scientific and Technical Talent

Resource Title: The Quiet Crisis: Falling Short in Producing American Scientific and Technical Talent

Description/Annotation: Report is a call to action to address the nation's growing need to increase U.S. talent with science and engineering expertise to compete on the global stage. Potential talent is being lost as we continue to see under representation of the growing populations of minorities, women, and disabled Americans within science and engineering. Useful resource for Deans, Educators, WEP directors.

Author Last Name: Jackson

Author First Name: Shirley Ann

Publisher: Building Engineering and Science Talent

Publication Date: 2001, Sep

Page Numbers: 12

Source: RPI

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment Career Factors](#) » [Professional Development](#)

The rapunsel project

Resource Title: The rapunsel project

Description/Annotation: By use of a dance game, and after much input and advice from thirteen year old design consultants, researchers teach Java programming in a way that will interest middle school girls – a critical age group for addressing gender inequity in programming. Funded by NSF GSE under award #0332898.

Author Last Name: Perlin

Author First Name: Ken

Additional Author: Flanagan

: Mary

Additional Author: Hollingshead

: Andrea

Publication Date: 2005

Page Numbers: 251-259

Publication Title: Proceedings of the Third international Conference on Virtual Storytelling

Source: ACM

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Publications by Funder » NSF-HRD-GSE Educational Factors » Pedagogy & Instruction Publications by Funder

The Relations of Ethnicity to Female Engineering Students' Educational Experiences and College and Career Plans in an Ethnically Diverse Learning Environment

Resource Title: The Relations of Ethnicity to Female Engineering Students' Educational Experiences and College and Career Plans in an Ethnically Diverse Learning Environment

Description/Annotation: Study at ethnically diverse University of Houston to assess student perceptions and experiences in pursuing engineering education. Influences and support by family and school personnel, cultural expectations, community aspirations and engineering school support systems all affect student choice and persistence in engineering programs.

Author Last Name: Trenor

Author First Name: Julie Martin

Additional Author: Yu

:

Shirley L.

Additional Author: Waight

:

Consuleo L.

Additional Author: Zerda

:

Katherine S.

Additional Author: Sha

:

Ting-Ling

Publication Date: 2008, Oct

Page Numbers: 449-465
Publication Title: Journal of Engineering Education
Source: ASEE
Database Name: Posted with permission

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Relationship Between Interest in Physical Science/Engineering, Science Class Experiences, and Family Contexts: Variations by Gender and Race/Ethnicity Among Secondary Students

Resource Title: The Relationship Between Interest in Physical Science/Engineering, Science Class Experiences, and Family Contexts: Variations by Gender and Race/Ethnicity Among Secondary Students

Description/Annotation: Drawing from a sample of 1,126 10th-grade students across four school districts in Southern California, this study examined the net effects of family — and science class — related variables on students' interests in a physical science and/or engineering career, with particular attention to variations in these relationships by students' gender and racial/ethnic background. Findings indicate the role of family science orientation is contingent less on gender than on race/ethnicity, and students' perceptions of their science class experiences are not strongly related to their science career aspirations regardless of gender and race/ethnicity. Implications for patterns of underrepresentation in the science and engineering pipeline are discussed.

Author Last Name: Gilmartin
Author First Name: S.K.
Additional Author: Li
: E.
Additional Author: Aschbacher
: P.
Publication Date: 2006
Page Numbers: 179-207

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 2-3
Source: INES
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) [Individual](#)
[Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Relative Equitability of High-Stakes Testing versus Teacher-Assigned Grades: An Analysis of the Massachusetts Comprehensive Assessment System (MCAS)

Resource Title: The Relative Equitability of High-Stakes Testing versus Teacher-Assigned Grades: An Analysis of the Massachusetts Comprehensive Assessment System (MCAS)

Description/Annotation: Study compared teacher-assigned grades and Massachusetts Comprehensive Assessment System (MCAS) scores in English, math, and science for 736 eighth-graders. Results show that high-stakes tests like MCAS are unreliable assessment tools for African-Americans and Latinos/as in math and girls in math and science. Useful resource for K-12 educators and administrators.

Author Last Name: Brennan

Author First Name: Robert T.

Additional Author: Kim
:
Jimmy

Additional Author: Wenz-Gross
:
Melodie

Additional Author: Siperstein
:
Gary N.

Publisher: Harvard Education Publishing Group

Publication Date: 2001, Summer
Publication Title: Harvard Educational Review
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

The Relative Importance of Gender, Major, Year and Cohort Differences in Undergraduate Engineering Orientations

Resource Title: The Relative Importance of Gender, Major, Year and Cohort Differences in Undergraduate Engineering Orientations

Description/Annotation: This paper examines data from surveys collected during an ongoing study of all engineering students during the years 2002-2008 at a mid-Atlantic public university. The question posed in this paper is how persistent are gender differences in engineering orientation and achievement, once controlled for engineering discipline, cohort, and year in the program.

Author Last Name: Hartman
Author First Name: Moshe
Additional Author: Hartman
: Harriet

Publication Date: 2009
Publication Title: ASEE Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

The reported and revealed importance of job attributes: implications of gender differences among information technology students

Resource Title:	The reported and revealed importance of job attributes: implications of gender differences among information technology students
Description/Annotation:	This study examines gender similarities and differences in job attribute preferences among prospective IT professionals. Participants evaluated a series of multi-attribute job descriptions in a policy-capturing design. Although male and female aspiring IT professionals gave the same average importance ratings to work values and desired the same types of job attributes, there were some subtle gender differences in the weights they place on these factors in evaluating potential jobs. In some cases, observed results were contrary to gender differences reported in research suggesting that commonly accepted stereotypes do not necessarily apply. Funded by NSF GSE under award #0733747.
Author Last Name:	Kuhn
Author First Name:	Kristine
Additional Author:	Joshi
:	K.D.
Publication Date:	2009, Aug
Page Numbers:	40-60
Publication Title:	ACM SIGMIS Database
Volume:	40
Issue:	3
Source:	ACM
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Career Factors](#) » [Professional](#)
[Development](#) [Publications by Funder](#) [Career Factors](#) » [Retention](#)

The Research Lab: a Chilly Place for Graduate Women

Resource Title: The Research Lab: a Chilly Place for Graduate Women

Description/Annotation: This article is a case study of two graduate women in a chemistry department at a large research university. In-depth interviews, field notes from a support group for graduate women in science, and departmental records were used to examine the relationship between key factors of their work environment and the high attrition rate of graduate women in the department. Analyses of the data indicated that the social climate in the research lab, shaped by the attitudes and behaviors of the women's male colleagues and/or research advisors, created a "chilly place" for the female graduate students.

Author Last Name: Ferreira

Author First Name: Maria M.

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 1

Source: Begell House

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

The Right to Education for Female Engineering Students in Mexico. Cultural Considerations in their Retention

Resource Title: The Right to Education for Female Engineering Students in Mexico. Cultural Considerations in their Retention

Description/Annotation: As part of a larger study examining the experiences of female engineering students in Mexico, the purpose of this study was to explore how cultural considerations shape the experiences of women college students that have persisted in engineering programs in Mexico. The percentage of women students in engineering is 24%, which is low compared to the percentage of women enrolled in higher education institutions in general which accounts for nearly 50%. It is thus important to understand how

the cultural factors among others shape the experiences and impact the retention of female college students in engineering programs.

Author Last Name: Villa
Author First Name: Carmen G.
Additional Author: Gonzalez
:
Elsa
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Family Cultural Influences](#) » [Gender Diversity Cultural Influences](#) » [Media & Entertainment](#)

The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations

Resource Title: The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations

Description/Annotation: The glass cliff phenomenon is further researched and reported in this article. The hypothesis tests whether women are over-represented in precarious leadership positions with more chance to fail. Three different groups were identified and asked to choose a leader for a company that was performing poorly. The reasons women are chosen for riskier leadership positions are explored. For management and the workforce.

Author Last Name: Haslam
Author First Name: S. A.
Additional Author: Ryan
:
Michelle K.
Publisher: JAI Press

Publisher Location: Greenwich, CT
Publication Date: 2008, Oct
Page Numbers: 530-546
Publication Title: The Leadership Quarterly
Volume: 19
Issue: 5
Source: ScienceDirect
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

The Role of Attitudes and Intervention in High School Girls' Interest in Computer Science

Resource Title: The Role of Attitudes and Intervention in High School Girls' Interest in Computer Science

Description/Annotation: The purpose of this study was twofold: (a) to investigate the role of attitudes in predicting high school girls' interest in computer science and (b) to experimentally manipulate cognitions through intervention to examine possible consequent effects on computer science interest. Results indicated that girls' self-efficacy in, valuing of, and egalitarian attitudes toward computer science were jointly predictive of interest in computer science, though no one construct uniquely predicted interest. In contrast, boys' valuing of computer science was uniquely predictive of interest in computer science beyond the effects of self-efficacy and egalitarian attitudes.

Author Last Name: Weisgram
Author First Name: Erica S.
Additional Author: Bigler
: Rebecca S.
Publication Date: 2006
Page Numbers: 325-336
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 12
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The role of community colleges in educating women in science and engineering

Resource Title: The role of community colleges in educating women in science and engineering

Description/Annotation: This chapter discusses the role of community colleges in educating the next generation of women in science, technology, engineering, and mathematics (STEM). Implications for policy and practice are offered, based on the major findings from a mixed-method study on the experiences of women in STEM who transferred to a four-year college from the community college system.

Author Last Name: Jackson

Author First Name: Dimitra Lynette

Additional Author: Laanan

: Frankie Santos

Publication Date: 2011

Page Numbers: 39-49

Publication Title: New Directions for Institutional Research

Volume: 152

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

The role of gender in belonging and sense of community

Resource Title: The role of gender in belonging and sense of community

Description/Annotation: This paper reports differences in belonging and connection to various levels of community between distinctly different technical fields: electrical engineering, civil & environmental engineering, and computer science. Established (reliable and validated) constructs have been used to assess community strength in these three fields at a major research university. The results emphasize gender differences within fields and between technical fields.

Author Last Name: Kissinger

Author First Name: J.

Additional Author: Campbell
: R.C.

Additional Author: Lombrozo
: A.

Additional Author: Wilson
: D.

Publication Date: 2009

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Organizational Culture](#)

The Role of Gender in Student Perceptions of Leadership on Interdisciplinary Engineering Teams

Resource Title: The Role of Gender in Student Perceptions of Leadership on Interdisciplinary Engineering Teams

Description/Annotation: This study examines the role of gender in students' perceptions of their own leadership skills, as well as those of their peers, while working as members of interdisciplinary engineering teams. The study concludes that male and female students might have different understandings or perceptions of what "leadership" means. For male students, leading was more about directing teamwork, running meetings, and project oversight. For female students, leading was about facilitating collaboration among team members, being responsible, and contributing to the team.

Author Last Name: Rowan-Kenyon

Author First Name: Heather T.

Additional Author: Coso

: Alexandra

Additional Author: Swan

: Amy K.

Additional Author: Bailey

: R. Reid

Additional Author: Creager

: Marie F.

Publisher: Begell House, Inc

Publisher Location: Redding, CT

Publication Date: 2012

Page Numbers: 97-113

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 18

Issue: 2

Source: Begell House

Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Role of Information in the Choice of IT as a Career

Resource Title:	The Role of Information in the Choice of IT as a Career
Description/Annotation:	This 5-page entry is research from the Encyclopedia of Information Science and Technology. The research described in this entry belongs to the group of social-psychological theories that look to environmental, rather than individual, explanation for women's underrepresentation in certain fields in science and engineering, including information technology. It considers the role of parents and the role of interactions with teachers, counselors, and important others in interest in a career in information technology.
Author Last Name:	Creamer
Author First Name:	Elizabeth G.
Publisher:	IGI Global
Publisher Location:	Hershey, PA
Publication Date:	2009
Page Numbers:	3345-3349
Publication Title:	Encyclopedia of Information Science and Technology, Second Edition
Source:	IGI Global
Source Type:	Abstract/Available for sale

Resource Type Categories: [Book](#) » [Book Chapter](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Career Factors](#) » [Mentoring Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The role of learner attributes and affect determining the impact of agent presence

Resource Title:	The role of learner attributes and affect determining the impact of agent presence
Description/Annotation:	This paper introduces two experimental studies that have examined the efficacy of agent presence in relation to learner attributes and affect. With 132 high school females, Study 1 investigated the effects of learners' prior math attitudes (high vs.

low) and prior math self-efficacy (high vs. low) on the changes in their attitudes and self-efficacy after working at a pedagogical agent-based environment. The results indicated that the females with low prior math attitudes significantly increased their math attitudes after working at the environment, whereas the attitudes of females with high prior math attitudes did not significantly change. The same trend was observed for their math self-efficacy. Study 2 investigated the interaction of learner gender, learner sociability (low-sociable vs. high-sociable) and agent presence (present vs. absent) on learners' math attitudes, math self-efficacy and learning with 180 male and female high school students. The results showed that for both male and female students, low-sociable students had significantly more positive math attitudes after working with an agent than without an agent, whereas high-sociable students had significantly more positive math attitudes after working at the learning environment without an agent than with an agent. The same was true for math self-efficacy. The learners significantly increased their learning regardless of the conditions. The implications of the findings are discussed. Funded by NSF GSE under award #0522634.

Author Last Name: Kim
Author First Name: Yanghee
Publication Date: 2009
Page Numbers: 234-249
Publication Title: International Journal of Learning Technology
Volume: 4
Issue: 3
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Role of Living–Learning Programs in Women’s Plans to Attend Graduate School in STEM Fields

Resource Title: The Role of Living–Learning Programs in Women’s Plans to Attend Graduate School in STEM Fields

Description/Annotation: This paper examines the role of living–learning (L/L) programs in undergraduate women’s plans to attend graduate school in STEM fields. Using data from the 2004–2007 National Study of Living Learning Programs (NSLLP), the only existing multi-institutional, longitudinal dataset examining L/L program outcomes, the findings show that women’s participation in women-only STEM-focused L/L programs is positively associated with STEM graduate school aspirations, in comparison to residing in co-educational STEM L/L programs, all other L/L programs, and traditional residence halls. Socially supportive residence hall climates and women’s self-assessments as performing better than men in STEM contexts were also positively associated with STEM graduate school plans, while academically supportive residence hall climates and visiting the work setting of a STEM professional held negative relationships with the outcome. Implications are discussed for L/L programs and the utility of women-only programming within coeducational institutions of higher education. Funded by NSF GSE under award #1128798.

Author Last Name: Szelényi

Author First Name: Katalin

Additional Author: Inkelas

: Karen Kurotsuchi

Publication Date: 2011

Page Numbers: 349-369

Publication Title: Research in Higher Education

Volume: 52

Issue: 4

Source: Springer Link

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Role of Mathematics Self-Efficacy in the Choice of Math-related Majors of College Women and Men: A Path Analysis

Resource Title:	The Role of Mathematics Self-Efficacy in the Choice of Math-related Majors of College Women and Men: A Path Analysis
Description/Annotation:	This 10 page report describes the development and results of a model which shows two paths of influence from gender to math self efficacy: through masculinity (direct socialization influences) and via math preparation and preparedness. Gender did not directly influence math self efficacy. The instrument used was the Mathematics Self-Efficacy Scale (MEMS).
Author Last Name:	Hackett
Author First Name:	Gail
Publication Date:	1985, Feb
Page Numbers:	47-56
Publication Title:	Journal of Counseling Psychology
Volume:	32
Issue:	1
Source:	APA
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Role of Mentoring in the Careers of Women Engineering Deans

Resource Title:	The Role of Mentoring in the Careers of Women Engineering Deans
Description/Annotation:	The small number of women who have served as deans of engineering in the United States followed a variety of career

paths. Future women leaders can benefit from their experiences. Through interviews with current and former female engineering deans, this paper explores the influence of mentors, professional society activities, and other leadership experience on their careers.

Author Last Name: Layne
Author First Name: Peggy
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Mentoring](#)

The Role of Parent-Child Relationships in Developing Self-Authorship Among Korean College Females

Resource Title: The Role of Parent-Child Relationships in Developing Self-Authorship Among Korean College Females

Description/Annotation: The purpose of this study is to explore dynamic mechanisms within families and self-authored decisions among Korean female college students. In particular, researchers investigated how parent-child interactions influence the development of self-authorship and self-authored decisions within Korean culture through interviews with 14 female college students. Results showed unique cultural influences on how female college students interacted with parents and interpreted and reflected parents' opinions in their self-authored decisions. These results suggest further research on gender differences and complex family influences on self-authored decisions within cultural contexts. Funded by NSF GSE under award #0522767 & #0120458.

Author Last Name: Lee
Author First Name: So-Young
Additional Author: Meszaros
:
Additional Author: Creamer

: Elizabeth G.
Additional Author: Laughlin
: Anne
Additional Author: Burger
: Carol J.
Publication Date: 2006
Page Numbers: 111-119
Publication Title: International Journal of Human Ecology
Volume: 7
Issue: 1
Source: Korea Science
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#)

The Role of Status in Producing Depressed Entitlement in Women's and Men's Pay Allocations

Resource Title: The Role of Status in Producing Depressed Entitlement in Women's and Men's Pay Allocations

Description/Annotation: Study testing the hypothesis that women pay themselves less than men for comparable work and think this practice is fair. The study concluded that status plays a role in producing depressed entitlement in self-pay.

Author Last Name: Hogue
Author First Name: Mary
Additional Author: Yoder
: Janice D.
Publisher: Wiley-Blackwell
Publisher Location: Ames, IA

Publication Date: 2003, Dec
Page Numbers: 330-337
Publication Title: Psychology of Women Quarterly
Volume: 27
Issue: 4
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors](#) » [Salary Individual Beliefs and Behaviors](#) » [Self-perception](#)

The Roles of Perceived Identity Compatibility and Social Support for Women in a Single-Sex STEM Program at a Co-educational University

Resource Title: The Roles of Perceived Identity Compatibility and Social Support for Women in a Single-Sex STEM Program at a Co-educational University

Description/Annotation: Single-sex programs have been implemented in a variety of educational settings to help promote greater engagement of women in STEM fields. However, the mechanisms through which single-sex programs increase women's engagement in STEM fields are unclear. Drawing from research in social and health psychology, researchers examined two theoretically-guided predictors of women's sense of belonging in their STEM majors and belonging at the university: perceived identity compatibility between being a woman and being in a STEM field, and perceived social support. Participants were 65 racially, ethnically, and socioeconomically diverse women enrolled in a single-sex STEM program at a co-educational university in Northeastern United States. Participants completed online surveys before the start of their first year of college, and again at the beginning of their second year of college. Findings from multiple regression analyses support hypotheses that across STEM women's first or transitional year of college, perceived identity compatibility, perceived support from close others, and perceived support from the single-sex program for STEM women were each

independently associated with greater sense of belonging in their major. Additionally, perceived identity compatibility and perceived support from the single-sex program were associated with greater sense of belonging at the university. These findings suggest that perceived support from sources such as single-sex programs and perceived compatibility between one's field and being female may sustain women pursuing training in nontraditional fields such as STEM. Funded by NSF GSE under award #0733918 & #1036427.

Author Last Name: Rosenthal
Author First Name: Lisa
Additional Author: London
:
Additional Author: Bonita
:
Additional Author: Levy
:
Additional Author: Sheri Robin
:
Additional Author: Lobel
:
Additional Author: Marci
Publication Date: 2011, Nov
Page Numbers: 725-736
Publication Title: Sex Roles
Volume: 65
Issue: 9/10
Source: Springer Link
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Rural Girls in Science Project: from Pipelines to Affirming Science Education

Resource Title: The Rural Girls in Science Project: from Pipelines to Affirming Science Education

Description/Annotation: The Rural Girls in Science (RGS) program was developed to foster the interest in science, engineering, and mathematics among rural high school girls in the state of Washington. Girls served include American Indians, Latinas, and Whites. This article provides an overview of the program and its outcomes not only for the participants (girls, teachers, counselors, and schools) but the researchers. Lessons learned from and about the participants are presented, and lessons learned from the process are discussed to illustrate how RGS moved from a focus on individuals to a focus on the school.

Author Last Name: Ginorio

Author First Name: Angela B.

Additional Author: Huston

: Michelle

Additional Author: Fevert

: Katie

Additional Author: Seibel

: Jane Bierman

Publication Date: 2002

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 8

Issue: 3&4

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity Outreach Programs](#)

The Science and Engineering Workforce: Realizing America's Potential

Resource Title: The Science and Engineering Workforce: Realizing America's Potential

Description/Annotation: The National Science Board Task Force on National Workforce Policies for Science and Engineering assessed long-term national workforce trends and needs in science and engineering and their relationship to existing Federal policies. Report includes policy recommendations that address long-term S&E workforce needs.

Author Last Name: NSB

Additional Author: NSF

Publisher: National Science Board

Publication Date: 2003, Aug 14

Publication Title: NSB 03-69

Source: NSB

Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Science Ceiling

Resource Title: The Science Ceiling

Description/Annotation: Citing data from several major studies on losing women in science careers, the author summarizes efforts from companies to reverse the trend. She relates stories of success from these companies and discusses the biggest factor that could help retain women. Interesting for industry leadership and women in STEM careers.

Author Last Name: Levine

Author First Name: Lois

Publisher: LRP Publications

Publisher Location: Horsham, PA

Publication Date: 2008, Dec

Publication Title: Human Resource Executive Online

Source: HRE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

The Science Glass Ceiling: Academic Women Scientists and the Struggle to Succeed

Resource Title: The Science Glass Ceiling: Academic Women Scientists and the Struggle to Succeed

Description/Annotation: In a timely response to many accusations and research about gender inequality at universities across the United States, this book was written to further examine women science faculty. Written by the first woman dean at a science/technical school, the book is a credible source of stories about women faculty and the challenges and barriers they face. The author offers suggestions and solutions for changing the culture at universities to reach gender equity. For academics.

Author Last Name: Rosser
Author First Name: Sue V.
Publisher: Routledge
Publisher Location: New York, NY
Publication Date: 2004, Mar
Page Numbers: 1-192
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

The Science of sex differences in science and mathematics

Resource Title: The Science of sex differences in science and mathematics

Description/Annotation: This report discusses a thorough exploration on the influences of women and men to pursue careers in science and math. A wide range of socio-cultural forces were found to contribute to differences in math and science achievement and ability including effects of family, neighborhood, peers and school, training, experience, and culture. There are no simple answers to the complex questions posed, but many factors are investigated.

Author Last Name: Halpern

Author First Name: Diane F.

Additional Author: Benbow

: Camilla

Additional Author: Geary

: David

Additional Author: Gur

: Ruben

Additional Author: Shibley-Hyde (et al)

: Janet

Publisher: Association for Psychological Science

Publication Date: 2007

Page Numbers: 1-51

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Science on Women and Science

Resource Title: The Science on Women and Science

Description/Annotation: Book examines the research behind the National Academy of Science's (NAS) claims that gender disparities in scientific fields are not attributable to biological differences and presents a balanced collection of articles by distinguished scholars offering diverse positions.

Author Last Name: Christine Hoff
Author First Name: Sommers (ed.)
Publisher: AEI Press
Publication Date: 2009, Nov
Page Numbers: 340
Source: AEI
Source Type: Summary, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#)

The SciGirls Seven: Proven Strategies for Engaging Girls in STEM

Resource Title: The SciGirls Seven: Proven Strategies for Engaging Girls in STEM

Description/Annotation: The SciGirls Seven is a list of research-based strategies to aid teachers in engaging girls in STEM. These seven strategies were created by SciGirls, a science-centric social networking site for teen girls and aimed towards encouraging girl's curiosity in STEM fields. The website is a companion to the hands-on science TV series, "SciGirls", which airs on PBS Kids. The SciGirls Seven is available in PDF format.

Author Last Name: SciGirls
Publisher: TPT National Productions
Publisher Location: St. Paul, MN
Publication Date: 2011
Source: PBS Teachers
Source Type: Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Second Shift. Working Parents and the Revolution at Home

Resource Title: The Second Shift. Working Parents and the Revolution at Home

Description/Annotation: Author conducted home observations with 50 two career family couples raising children to see how they balance their careers and home life. She found that couples were either traditional, transitional, or egalitarian.

Author Last Name: Hochschild

Author First Name: Arlie

Additional Author: Machung

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Publisher: Penguin Group

Publisher Location: NY, NY

Publication Date: 2003

Page Numbers: 352

Source: Amazon

Source Type: Abstract, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Family Issues

The second theme issue on gender studies in engineering and engineering education

Resource Title: The second theme issue on gender studies in engineering and engineering education

Description/Annotation: This editorial includes overviews of research projects discussing gender studies in engineering.

Author Last Name: Editorial

Publication Date: 2006

Publication Title: European Journal of Engineering Education

Volume: 31

Issue: 1

Source: Taylor and Francis

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

The Secret Life of Scientists & Engineers

Resource Title: The Secret Life of Scientists & Engineers

Description/Annotation: "Secret Life" is an Emmy-nominated web video series and site from the makers of PBS's NOVA. Every two weeks, "Secret Life" premieres another set of intimate, engaging, and funny videos about a new scientist or engineer... who happens to have a secret. The site offers a blog to interact with the featured scientists and engineers, teachers guide, profiles of featured scientists and engineers, and web resources.

Web site Link: [Link to Resource](#)

More: "The Secret Life" is produced for NOVA by Seftel Productions.

Resources: The "Secret Life" website includes the following resources:

- The Secret Life Blog
- Web Resources
- Teaching Tips (ideas for using "Secret Life" resources)
- Video Clips (sort by curricular topics or hobbies)
- Scientist Index (search by field of work, most recent, or secret life)

Site Access Details: This is a publicly accessible website.

Partners and Funding: Exclusive funding provided by the Alfred P. Sloan Foundation.

Contact E-mail: NOVA@wgbh.org

Last Update Date: July 24, 2013

Resource Type Categories: [Webinar/Video](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Secret to a Healthy Science Pipeline Should be 'Elementary'

Resource Title: The Secret to a Healthy Science Pipeline Should be 'Elementary'

Description/Annotation: Author states the case for improving elementary science teacher training through collaborations with university education students and industry engineering and science partners. Useful for Deans of Engineering colleges.

Author Last Name: Babe

Author First Name: Gregory S.

Publisher: Machine Design

Publication Date: 2005, Feb 17

Volume: 77

Issue: 4

Source: Machine Design

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#) [Career Factors](#) » [Professional Development](#)

The Secrets to Increasing Females in Technology

Resource Title: The Secrets to Increasing Females in Technology

Description/Annotation: This paper uses generalizations of the behaviors of girls/women vs. boys/men to identify simple actions that will appeal to larger numbers of girls while continuing to appeal to the boys.

Author Last Name: Shanahan

Author First Name: Betty

Publication Date: 2006, Oct

Page Numbers: 22-24

Publication Title: Technology Teacher

Volume: 66

Issue: 2

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered](#)
[Occupations & Study Choices](#)

The Simple Truth about the Gender Pay Gap

Resource Title:	The Simple Truth about the Gender Pay Gap
Description/Annotation:	This 24-page guide from the American Association of University Women (AAUW) provides key facts about the gender pay gap in the United States. Topics include the history and definition of the pay gap; state-by-state rankings of the pay gap; how the pay gap is influenced by age, race/ethnicity, and education; guidance for women facing workplace discrimination; and resources for fair pay advocates. The full guide is available in PDF format and Powerpoint.
Author Last Name:	AAUW
Publisher:	AAUW
Publisher Location:	Washington, DC
Publication Date:	2012
Page Numbers:	1-24
Source:	AAUW
Source Type:	Link to PDF and Powerpoint

Resource Type Categories: [Guide/Handbook](#) [Topical](#) Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

The Smart Grid for Institutions of Higher Education and the Students They Serve: Developing and Using Collaborative Agreements to Bring More Students into STEM

Resource Title:	The Smart Grid for Institutions of Higher Education and the Students They Serve: Developing and Using Collaborative Agreements to Bring More Students into STEM
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Description/Annotation: This 105-page report from the American Association for the Advancement of Science (AAAS) and EducationCounsel is part of the second phase of the AAAS Diversity and Law Project that focuses on science, technology, engineering and math (STEM)-related access and diversity-related law, policy, and programmatic issues. This report addresses the development of voluntary educational collaborations between institutions of higher education to expand the pipeline for all students into progressively higher levels of STEM education. The full report is available in PDF format.

Author Last Name: Coleman
Author First Name: Arthur L.
Additional Author: Lipper
: Katherine E.
Additional Author: Keith
: Jamie Lewis
Additional Author: Chubin
: Daryl E.
Additional Author: Taylor
: Teresa E.
Publisher: AAAS
Publisher Location: Washington, DC
Publication Date: 2012
Page Numbers: 1-105
Source: AAAS
Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation Educational Factors » Retention

The Sponsor Effect: Breaking Through the Last Glass Ceiling

Resource Title: The Sponsor Effect: Breaking Through the Last Glass Ceiling

Description/Annotation: This 77-page report from the Center for Talent Innovation (CTI), formerly the Center for Work-Life Policy, details the results of a study launched in 2009 to determine the nature and impact of sponsorship and examine why women fail to either access or make better use of it. According to the report, women underestimate the role sponsorship plays in their advancement, and those who do grasp the importance of relationship capital fail to cultivate it effectively. Results indicate that companies that foster sponsorship of their standout women gain a competitive advantage in talent markets. The full report is available in PDF format.

Author Last Name: Hewlett
Author First Name: Syliva Ann
Additional Author: Peraino
: Kerrie
Additional Author: Sherbin
: Laura
Additional Author: Sumberg
: Karen
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: Dec 2010
Page Numbers: 1-77
Source: CTI
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

The State of Representation of Technical Women in Industry

Resource Title: The State of Representation of Technical Women in Industry
Description/Annotation: Statistical information about women in information technology, science, and engineering occupations. Includes projections of job

openings in these fields, the pipeline at the university level for the industry, and the proportions of women to men in these jobs. Also included are statistics of women at different levels in the organizations in these science-related fields, and the proportions of women to men at these levels, particularly at the highest levels of leadership. Excellent statistical information for research and presentations for industry, the workforce, and academics.

Author Last Name: Anita Borg Institute for Women and Technology
Publisher: Anita Borg Institute for Women and Technology
Publisher Location: Palo Alto, CA
Publication Date: 2007
Page Numbers: 1-5
Source: Anita Borg Institute for Women and Technology
Source Type: Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

The State of Research on Girls & IT

Resource Title: The State of Research on Girls & IT

Description/Annotation: This 2007 article from NCWIT briefly summarizes recent findings and recommendations about girls and computing, and presents several themes which emerge from the research-based advise . The research summarized in this resource was originally published in "Women and Information Technology: Research on Underrepresentation", edited by Cohoon and Aspray in 2006. After presenting a description of the Barker and Aspray comprehensive review of the literature, the article also offers reviews and concluding recommendations of four additional reports. Because the article includes only summaries of the research reports, the author encourages readers to view the original sources for a thorough explanation of methods, findings, and conclusions.

Author Last Name: Cohoon
Author First Name: J. McGrath
Publisher: NCWIT
Publisher Location: Boulder, CO

Publication Date: 2007, Apr
Page Numbers: 1-3
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The State of Social Science Research on Gender and IT Entrepreneurship: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Resource Title: The State of Social Science Research on Gender and IT Entrepreneurship: A Review of Research Literature on Women's Entrepreneurship in the Information Technology Field

Description/Annotation: This 4-page briefing report from the National Center for Women and Information Technology (NCWIT) is part of the Entrepreneurial Report Series. This report provides a summary of research literature on women's entrepreneurship in the IT field and discusses possible explanations for the severe gender imbalance in IT entrepreneurship. The full report is available in PDF format.

Author Last Name: Aspray
Author First Name: William
Additional Author: Cohoon
: J. McGrath
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2007, Dec
Page Numbers: 1-4
Publication Title: National Center for Women and Information Technology Entrepreneurial Report Series
Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Leadership & Management](#)

The Strategic Oversight Committee: A Best Practice for Faculty Hiring and Diversity

Resource Title: The Strategic Oversight Committee: A Best Practice for Faculty Hiring and Diversity

Description/Annotation: This paper and presentation from the 2012 WEPAN National Conference describes an approach, the Strategic Oversight Committee, being used in the College of Engineering at Purdue to provide oversight to the faculty hiring process. The paper presents data to show that such an approach can be successful. The full paper is available in PDF format.

Author Last Name: Kokini

Author First Name: Klod

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Hiring Practices](#)

The Student Teacher Outreach Mentorship Program (STOMP)

Resource Title: The Student Teacher Outreach Mentorship Program (STOMP)

Description/Annotation: The Student Teacher Outreach Mentorship Program (STOMP) was designed to create partnerships between STEM "experts" and K-12 teachers in developing and implementing interactive STEM lessons. This STOMP website is designed to be an online resource to unite

STEM outreach programs across the country and throughout the world. This site serves to provide resources, activities, research, and experiences from STEM outreach programs that can be shared to help strengthen current programs and disseminate STOMP models.

Web site Link: [Link to Resource](#)

More: The STOMP network contains three branches:

- University STOMP - Higher education institutions looking to start their own STEM outreach program.
- Industry STOMP - Industries looking to add an outreach component to their company.
- High School STOMP - High schools or communities interested in starting their own STEM outreach program.

Resources: The STOMP website contains a wealth of resources to assist in the implementation of STEM outreach programs:

- Publications - News, Journal Articles and Conference Proceedings
- Promotional Materials
- Program Manuals
- Sample Units
- STOMP Databases - Activity, Photo, and Video
- Tufts STOMP Annual Reports

Site Access Details: This is a publicly accessible site.

Partners and Funding: STOMP was founded at Tufts University in 2001. Originally funded by a generous 3-year grant from the LLL Foundation, the success of STOMP at Tufts persuaded the foundation to fund the program for an additional 10 years so that program efforts could focus on expanding and sustaining STOMP on a national level. Upon securing this funding, Tufts has helped several other universities launch a STOMP program through STOMP start-up support.

Contact E-mail: webmaster@stompnetwork.org

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Diversity Orgs & Pgms for Women and Girls](#) [Career Factors » Mentoring Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

The Supergirl Dilemma: Girls Grapple with the Mounting Pressure of Expectations

Resource Title:	The Supergirl Dilemma: Girls Grapple with the Mounting Pressure of Expectations
Description/Annotation:	In this 94-page report, the authors discuss the results of a nationwide survey conducted by Girls Inc. The survey revealed increasing pressures on girls to please everyone and do everything. The report can be purchased in full (94 pages) or in summary (44 pages).
Author Last Name:	Girls Inc.
Publisher:	Girls Inc.
Publisher Location:	New York
Publication Date:	2006
Page Numbers:	94
Source:	Girls Inc.
Source Type:	Abstract, Available for Purchase

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Talent Crisis in Science and Engineering

Resource Title:	The Talent Crisis in Science and Engineering
Description/Annotation:	Discusses why the United States is not tapping into under-utilized populations to grow national STEM capabilities. Literature overview spotlights resources that characterize and monitor the status of women in Science & Engineering professions, including indicators for faculty diversity.
Author Last Name:	Sevo
Author First Name:	Ruta
Publisher:	SWE-AWE, NAE-CASEE
Publication Date:	2009
Volume:	Applying Research to Practice (ARP) Series

Source: ARP
Source Type: Abstract, Information Sheet, Research Overview

Resource Type Categories: Articles/Reports » Literature Reviews Topical Categories: Career Factors Cultural Influences Diversity Orgs & Pgms for Women and Girls Cultural Influences » Gender Diversity Diversity Orgs & Pgms for Women and Girls » International Career Factors » Leadership & Management

The Talent Imperative: Meeting America's Challenge in Science and Engineering, ASAP

Resource Title: The Talent Imperative: Meeting America's Challenge in Science and Engineering, ASAP

Description/Annotation: Report authored by BEST describing the Talent Imperative to grow the national capacity for scientists and engineers by tapping underrepresented groups and reducing the reliance on international talent. Identifies specific successful programs for K-12, undergraduate and graduate students.

Author Last Name: BEST

Publisher: Building Engineering and Science Talent

Publication Date: 2002

Volume: 16

Source: BEST

Source Type: Full text

Resource Type Categories: Articles/Reports » Web Resources Topical Categories: Educational Factors Educational Factors » Retention

The TEAMS Leadership Institute: Encouraging Women to Take the Road Less Traveled

Resource Title: The TEAMS Leadership Institute: Encouraging Women to Take the Road Less Traveled

Description/Annotation: This paper discusses the TEAMS Leadership Institute, a program at Purdue University Calumet (PUC) that was designed to promote

women into leadership roles in fields that are generally known to have an underrepresented female population. The mission of the institute is to aid current and future leaders in the fields of Technology, Engineering, Architecture/Construction, Mathematics and Sciences in overcoming gender-related issues common in business environments. The paper presents an overview of the TEAMS Leadership Institute including a discussion of its origin and support structures that were used at PUC to sustain and grow the program. A few of the challenges that arose due to the diversity of disciplines that are involved in the program are also discussed.

Author Last Name: Scachatti
Author First Name: Susan
Additional Author: Mania-Farnell
:
Additional Author: Dorworth
:
Publication Date: 2001
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Career Factors » Leadership & Management](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity](#) [University Programs](#)

The Third Shift: Managing Hard Choices in Our Careers, Homes, and Lives as Women

Resource Title: The Third Shift: Managing Hard Choices in Our Careers, Homes, and Lives as Women

Description/Annotation: The author describes the "first shift" as work, the "second shift" as home, and the "third shift" as the emotional toil working mothers face when trying to create balance in their lives. Three central challenges are examined - the identity challenge, the task challenge, and the balance challenge, and the author offers answers to women. Much of the focus is on relieving the self-

doubt working women feel when juggling obligations of their careers and their families. For working mothers and their families.

Author Last Name: Bolton
Author First Name: Michele
Publisher: Jossey-Bass
Publisher Location: San Francisco, CA
Publication Date: 2000, Jul
Page Numbers: 1-352
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

The Use of Hands-on Science Kits to Develop Interest in the Engineering Program at Sweet Briar College

Resource Title: The Use of Hands-on Science Kits to Develop Interest in the Engineering Program at Sweet Briar College

Description/Annotation: Sweet Briar outreach project to high school students of hands-on science kit implemented in one hour class periods in high schools. The goal of this project is to create a network of teachers and counselors that will advise their students about the benefits of the Sweet Briar Engineering Program. Another goal is to create excitement for science and engineering amongst high school students.

Author Last Name: Yocjum
Author First Name: Hank
Additional Author: Sanadgol
:
Additional Author: Loboschefski
:
Additional Author: Pierce
:
Additional Author: Scott

Additional Author: Hyman
:
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 5
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

The Use of Program Reviews to Improve Women in Engineering Programs and Create Transformation

Resource Title: The Use of Program Reviews to Improve Women in Engineering Programs and Create Transformation

Description/Annotation: Program reviews are a common method of assessing progress in academia (e.g. ABET accreditation). A program review has the potential to create buy-in within institutional leadership and engage stakeholders in the mission of the WIE/WISE program. This panel will explore issues associated with using program reviews to achieve WIE objectives.

Author Last Name: Zunkel
Author First Name: Karen
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Presentation

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

The View From Here: How the Freshman Experience Looks to Young Women at NC State University

Resource Title: The View From Here: How the Freshman Experience Looks to Young Women at NC State University

Description/Annotation: This paper looks at data collected from surveys and focus groups of College of Engineering students disaggregated by gender. The goal of collecting and analyzing this type of data is to discover whether certain aspects of the freshman experience can have impact on the success and retention rates of female students in the College of Engineering.

Author Last Name: Bottomley

Author First Name: Laura

Additional Author: Spurlin

: Joni

Additional Author: Parry

: Elizabeth

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

The WIN Program- A Mentoring Program for Women in Engineering at the University of Arkansas

Resource Title: The WIN Program- A Mentoring Program for Women in Engineering at the University of Arkansas

Description/Annotation: This paper discusses the Women IN Engineering (WIN) Program at the University of Arkansas. The program consists of matching female freshmen and sophomore engineering majors with upperclass females in their department for the purpose of receiving advice and encouragement. Anecdotal evidence

indicates that the WIN program is making a positive difference in the lives of female engineering undergraduates.

Author Last Name: Tooley
Author First Name: Melissa S.
Publication Date: 1997
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#)

The Woman Engineering Academic: An Investigation of Departmental and Institutional Environments

Resource Title: The Woman Engineering Academic: An Investigation of Departmental and Institutional Environments

Description/Annotation: Women engineering faculty were interviewed from two different universities regarding their experiences in their work environment. Most of the women interviewed reported feeling singled out at times because they were women. Article has suggestions for coping with work and home life balance that may be of value to other women professionals.

Author Last Name: McKendall
Author First Name: Sherron B.
Publisher: Taylor & Francis
Publisher Location: Philadelphia, PA
Publication Date: 2000, Apr
Page Numbers: 26-35
Publication Title: Equity & Excellence in Education
Volume: 33
Issue: 1
Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

The Woman's Guide to Navigating the Ph.D. in Engineering & Science

Resource Title: The Woman's Guide to Navigating the Ph.D. in Engineering & Science

Description/Annotation: Qualitative interviews offer stories and tips from women who have found success in academia, industry, and the public sector. Each chapter covers a different aspect of graduate school, from identifying funding sources, to writing the dissertation, to looking for a job. The book also focuses on the emotional and social difficulties women may experience, and offers practical suggestions and advice for surviving and thriving in graduate school. The book serves almost as a "how-to" guide for women to succeed in many academic and industry settings.

Author Last Name: Lazarus

Author First Name: Barbara B.

Additional Author: Ritter

:

Lisa M.

Additional Author: Ambrose

:

Susan A.

Publisher: IEEE Press

Publication Date: 2001, Jan

Page Numbers: 144

Source: Wiley

Source Type: Summary, Reviews, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Educational Factors](#) » [Academic & Social](#) [Climate Educational Factors](#) [Educational Factors](#) » [Retention](#)

The Women in Applied Science and Engineering Program: How Diversified Programming Increases Participation

Resource Title: The Women in Applied Science and Engineering Program: How Diversified Programming Increases Participation

Description/Annotation: This paper describes successful retention programs utilized by the Women in Applied Sciences and Engineering (WISE) Program in the College of Engineering and Applied Sciences (CEAS) at Arizona State University prior to the fall of 2001 and new programs added in fall 2001. By expanding the retention programs to include activities that involve engineering and are female focused, the paper discusses how WISE has been able to increase participation dramatically.

Author Last Name: Newell

Author First Name: Dana C.

Additional Author: Fletcher

: Shawna L.

Additional Author: Anderson-Rowland

: Mary R.

Publication Date: 2002

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

THE WOMEN IN APPLIED SCIENCE AND ENGINEERING (WISE) RECRUITMENT PROGRAMS: INVESTING IN THE FUTURE

Resource Title: THE WOMEN IN APPLIED SCIENCE AND ENGINEERING (WISE) RECRUITMENT PROGRAMS: INVESTING IN THE FUTURE

Description/Annotation: This paper describes the Women in Applied Science and Engineering (WISE) Summer Recruitment Programs which are designed to introduce female students to the twelve engineering disciplines available at ASU. WISE TEAMS targets middle school girls entering grades 6-9, especially under-represented ethnic minorities. The TEAMS program consists of three days of team training in the context of science and engineering exploration. The hands-on engineering and science labs and physical activities are described. WISE-Up, a weeklong residential program, is offered for high school girls entering grades 10-12. WISE-Up offers a variety of labs and activities, company tours, team-building exercises, and a weeklong, hands-on, team project. In addition, WISE awards scholarships to outstanding senior participants in WISE-Up. An overview of the WISE Summer Recruitment Programs is presented, as well as retention data on 1997-2000 participants who are now attending ASU. Funded by NSF GES under award #9872818.

Author Last Name: Newell

Author First Name: Dana C.

Additional Author: Fletcher

: Shawna L.

Additional Author: Anderson-Rowland

: Mary R.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Women in Science and Engineering (WiSE) Program at the University of Southern California: Achievements and Challenges of the First Five Years

Resource Title: The Women in Science and Engineering (WiSE) Program at the University of Southern California: Achievements and Challenges of the First Five Years

Description/Annotation: This paper discusses the Women in Science and Engineering (WiSE) Program at the University of Southern California to address the under-representation of women in science and engineering. This paper describes the programs developed and administered by WiSE, the perceived successes to date, the challenges that remain, and the future directions of the program to ensure continued progress toward gender equity in science and engineering at USC.

Author Last Name: Hawkes

Author First Name: Nicole

Additional Author: Morrison

: Jean

Additional Author: Raghavendra

: Caugligi

Publication Date: 2007

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

The Women in Science Project at Dartmouth

Resource Title: The Women in Science Project at Dartmouth

Description/Annotation: Article that describes a program (The Women in Science Project at Dartmouth) to encourage women that are interested in science and engineering to choose careers in science and engineering.

Components such as offering first year students research opportunities are reported. For undergraduate faculty, and program planners at universities looking for ways to encourage women students in the fields of science and engineering.

Author Last Name: Muller
Author First Name: Carol B.
Publisher: National Association for Women in Education
Publisher Location: Washington, D.C.
Publication Date: 1992, Fall
Page Numbers: 39-47
Publication Title: Initiatives
Volume: 55
Issue: 3
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

The Women of NASA

Resource Title: The Women of NASA

Description/Annotation: The Women of NASA website is part of the NASA Quest website, all designed to be a resource for educators and kids. The Women of NASA highlights women's careers in this scientific arena of space exploration.

Web site Link: [Link to Resource](#)

Resources:

- Profiles of Women in NASA
- Profiles of Women of the World
- Teaching Tips
- Interactive Events
- Young Women of NASA Advisory Council

Site Access Details: Free access to site by the general public.

Contact E-mail: quest-info@mail.arc.nasa.gov

Last Update Date: August 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Leadership & Management Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

The Women's Industry Network at WPI: Career Mentoring for Women

Resource Title: The Women's Industry Network at WPI: Career Mentoring for Women

Description/Annotation: WIN, a mentoring program that brings together female WPI students and professional women engineers, scientists and managers, is designed to help participating students explore STEM careers and prepare for the challenges ahead by providing networking opportunities and access to working women.

Author Last Name: Nicholson

Author First Name: Shelley Errington

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 6

Source: WEPAN

Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Mentoring Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs

The Women's Movement Against Sexual Harassment

Resource Title: The Women's Movement Against Sexual Harassment

Description/Annotation: An extensively researched book about the way a diverse group of women started a grassroots social movement to eliminate sexual harassment in the workplace. The story of how sexual harassment was defined, interpreted and litigated, and the courage of women and organizations who took a stand and spoke out against practices previously undefined and unprotected. A good example

of what women can accomplish. For academics, industry, and the workforce.

Author Last Name: Baker
Author First Name: Carrie N.
Publisher: Cambridge University Press
Publisher Location: New York, NY
Publication Date: 2007, Dec
Page Numbers: 1-286
Source: Amazon
Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Organizational Culture Career Factors » Stereotype Threat

The World Images of Science and Engineering for Women Program (WISE Women) at Mississippi State University

Resource Title: The World Images of Science and Engineering for Women Program (WISE Women) at Mississippi State University

Description/Annotation: This paper discusses the World Images of Science and Engineering for Women (WISE Women) Program at Mississippi State University, a natural expansion of the K-12 outreach activities of the Bagley College of Engineering. Participants are introduced to the ten engineering disciplines offered at Mississippi State University. They also participate in hands-on activities, with two major project competitions that are completed throughout the week.

Author Last Name: Seiler
Author First Name: Emma
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs

The Young Women in Science Program: A Five-Year Follow-Up of an Intervention to Change Science Attitudes, Academic Behavior, and Career Aspirations

Resource Title: The Young Women in Science Program: A Five-Year Follow-Up of an Intervention to Change Science Attitudes, Academic Behavior, and Career Aspirations

Description/Annotation: The Young Women in Science intervention targeted young women from rural Appalachia to address factors that discourage high school girls from pursuing careers in science, urging them to pursue scientific careers in drug and alcohol research. This three-year program for 49 young women entering ninth grade in 12 southeastern Kentucky counties included a summer camp, Saturday Academies (educational seminars held in their communities), and mentoring by university faculty and community leaders. Analyses showed at five-year follow-up that in comparison to nonselected applicants, program participants had greater confidence in their abilities to learn science and to complete the training for science compared to nonscience careers. Participants were also more likely to attend college and to major in science than nonselected applicants. Finally, intervention participants were more likely to have retained their original aspirations for a career in science.

Author Last Name: Schumacher

Author First Name: Mitzi M.

Additional Author: Stansburgy

: Kim N.

Additional Author: Johnson

: Michelle Natasya

Additional Author: Floyd

: Sondra R.

Additional Author: Reid

: Caroline E.
Publication Date: 2009
Page Numbers: 303-321
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Diversity Orgs & Pgms for Women and Girls Educational Factors Individual Beliefs and
Behaviors Educational Factors » Informal Academic Preparation Individual Beliefs and Behaviors »
STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity
Outreach Programs

Theater as a Community-Building Strategy for Women in Engineering: Theory and Practice

Resource Title: Theater as a Community-Building Strategy for Women in
Engineering: Theory and Practice

Description/Annotation: This paper presents the background psychosocial literature for
choosing participatory theater as a strategy to develop a caring
community and reports on a pilot study in which participatory
theater activities were used within a workshop format for
untenured female faculty members in engineering. Authors
identify the key differences between participatory theater and
other strategies for community building that may enhance
participants' sense of commonality. Authors discuss the strength
and utility of their community as a mentoring and support
mechanism and discuss the ways in which these efforts could
have a broader, longer term impact.

Author Last Name: Chesler
Author First Name: Naomi C.
Additional Author: Chesler
:
Mark A.
Publication Date: 2005

Page Numbers: 83-95
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 11
Source: University of Wisconsin-Madison
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Retention](#)

Theme Issue on Gender Studies in Engineering and Engineering Education

Resource Title: Theme Issue on Gender Studies in Engineering and Engineering Education
Description/Annotation: This editorial presents success stories about gender studies in engineering.
Author Last Name: Ihlen
Author First Name: Susanne
Publication Date: 2005, Dec
Publication Title: European Journal of Engineering Education
Volume: 30
Issue: 4
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Theories meet realities: Designing a Learning Game for Girls

Resource Title: Theories meet realities: Designing a Learning Game for Girls

Description/Annotation: Projected funded by the National Science Foundation (NSF) to design a game that will fuse science, pedagogy, and fun for girls.

Author Last Name: Heeter

Author First Name: Carrie

Additional Author: Drew Greene

: Darcy

Additional Author: Winn

: Brian

Publisher: Conference on Designing for User eXperience (DUX)

Publisher Location: San Francisco, CA

Publication Date: 2005

Publication Title: Designing for User Experiences

Volume: 135

Source: ACM

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Theorizing Progress: Women in Science, Engineering, and Technology in Higher Education

Resource Title: Theorizing Progress: Women in Science, Engineering, and Technology in Higher Education

Description/Annotation: This 24-page article includes a brief overview of the status of women in science, technology, and engineering, followed by a section on obstacles faced by women in these disciplines, including a definition of underrepresentation and a look at contributing reasons for underrepresentation of women in higher education SET, and a survey of women in a variety of initiatives in SET. Includes best practice tips and challenges in women's SET initiatives and a conceptual framework to classify and evaluate various types of initiatives.

Author Last Name: Cronin
Author First Name: Catherine
Additional Author: Roger
:
Angela
Publisher Location: Scotland
Publication Date: 1999
Page Numbers: 637-661
Publication Title: Journal of Research in Science Teaching
Volume: 36
Issue: 6
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Thin Ice: Stereotype Threat and Black College Students

Resource Title: Thin Ice: Stereotype Threat and Black College Students
Description/Annotation: Article assesses causes, impacts, and actions related to stereotype threat in the context of test taking for students. Author discusses "social mistrust" by test-takers who fear that they may be judged on the basis of negative stereotypes and suggests ways to gain student trust.
Author Last Name: Steele
Author First Name: Claude M.
Publisher: Atlantic Magazine
Publication Date: 1999, Aug
Page Numbers: 6
Publication Title: The Atlantic
Source: The Atlantic

Source Type: Full text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical
Categories: Educational Factors Educational Factors » Stereotype Threat on Testing

Think Leader, Think Male and Female: Sex vs. Seating Arrangement as Leadership Cues

Resource Title: Think Leader, Think Male and Female: Sex vs. Seating Arrangement as Leadership Cues

Description/Annotation: Experiment consisting of 241 undergraduate students grouped in different seating arrangements. Students were tasked to identify a "leader". Study proved that when people have to choose a leader they more than likely choose a male.

Author Last Name: Jackson

Author First Name: Danielle

Additional Author: Engstrom
:
Erika

Additional Author: Emmers-Sommer
:
Tara

Publisher: Springer

Publisher Location: New York, NY

Publication Date: 2007, Nov

Page Numbers: 713-723

Publication Title: Sex Roles

Volume: 57

Issue: 38604

Source: SpringerLink

Source Type: Abstract, Available for sale

Thomas Jefferson National Accelerator Facility

- Resource Title:** Thomas Jefferson National Accelerator Facility
- Description/Annotation:** Jefferson Lab is committed to increasing the number of teachers with a substantial background in math and science and has developed web pages with links to teachers' and students' resources, hands-on science activities, puzzles and games, and programs and events. Many on-site activities for K12 teachers and classes in the Newport News, VA area.
- Web site Link:** [Link to Resource](#)
- More:** Jefferson Lab is a user facility for scientists worldwide, whose primary mission is to conduct basic research of the atom's nucleus at the quark level.
- Resources:** Teacher resources include:
- Science teacher education/professional development classes
 - Workshops on physics, mathematics, nuclear energy and radiation
- Class resources include:
- Physics Fest - on-site 2-hour interactive summary of the science and technology at Jefferson Lab followed by the Deep Freeze (cryogenics) and Hot Stuff (plasmas) presentations
 - Hands on activities, worksheets, puzzles, games
 - Videos of experiments on topics such as liquid nitrogen, oxygen and static electricity
- Student resources:
- Homework Helper resources
 - Internship opportunities
 - Games and Puzzles
- Community resources:
- Science series lectures
- Site Access Details:** This site is publicly accessible.
- Partners and Funding:** The Thomas Jefferson National Accelerator Facility (Jefferson Lab) is funded by the U.S. Department of Energy's Office of Science with strong support from the City of Newport News and the

Commonwealth of Virginia. As a user facility for scientists worldwide, its primary mission is to conduct basic research of the atom's nucleus at the quark level.

Contact E-mail: tyler@jlab.org

Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Professional Development](#)

Three University Chiefs Chide Summers on Remarks

Resource Title: Three University Chiefs Chide Summers on Remarks

Description/Annotation: Newspaper article that discusses how the presidents of the Massachusetts Institute of Technology, Princeton University, and Stanford University have written an essay critical of remarks made by Harvard President Lawrence H. Summers. Summers stated that biological differences may help explain why fewer women than men succeed at the top ranks of science and engineering. Interesting piece because University Presidents seldom publicly criticize each other.

Author Last Name: Bombardieri

Author First Name: Marcella

Publisher: Boston Globe

Publisher Location: Philadelphia, PA

Publication Date: 2005, Feb 12

Source: Boston Globe

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Through the Labyrinth: The Truth About How Women Become Leaders

Resource Title: Through the Labyrinth: The Truth About How Women Become Leaders

Description/Annotation: Eagly and Carli have presented the theory of the labyrinth instead of the glass ceiling to describe what women run into in advancing their careers. Despite the progress women have made, the authors address questions such as how far have women really come, do organizations still put up barriers to women's advancement, and what restrictions still exist? The book is based on scientific research across many disciplines, and also includes anecdotes and personal accounts. Valuable to industry leaders and women professionals seeking to advance their careers.

Author Last Name: Eagly

Author First Name: Alice H.

Additional Author: Carli

: Linda L.

Publisher: Harvard Business School Press

Publisher Location: Boston, MA

Publication Date: 2007, Oct

Page Numbers: 1-336

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#)

Time Allocation in Families

Resource Title: Time Allocation in Families

Description/Annotation: This book chapter discusses the evolving relationship between the work and family balance, specifically the issue of time allocation. Statistical results are presented relating to number of hours worked by year, and percentage by gender. Interesting collection of statistical data and analysis relating to time allocation.

Author Last Name: Bianchi

Author First Name: Suzanne M.

Additional Author: Riley
:
Publisher: Routledge, Inc.
Publication Date: 2005
Page Numbers: 21-42
Publication Title: Work, Family, Health, and Well-Being
Source: University of Maryland
Database Name: Google Book Search
Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Title IX & STEM: Promising Practices for Science, Technology, Engineering & Mathematics

Resource Title: Title IX & STEM: Promising Practices for Science, Technology, Engineering & Mathematics

Description/Annotation: NASA resource guide for educational institutions presents promising practices it found during routine Title IX STEM compliance assessments of its major educational grant recipients. The report outlines Title IX mandates for STEM and includes short, bulleted promising practice overviews organized by Title IX procedural requirements - coordination, administration, recruitment, outreach, and retention. The purpose of the guide is to show a diversity of effective compliance efforts in the hopes these ideas will be utilized by more and more NASA grant recipients.

Author Last Name: NASA

Publisher: National Aeronautics and Space Administration

Publication Date: 2009, Aug 4

Publication Title: #NP-2009-06-592-HQ

Source: NASA

Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Legal Considerations](#)

Title IX at 35: Beyond the Headlines

Resource Title:	Title IX at 35: Beyond the Headlines
Description/Annotation:	National Coalition for Women and Girls in Education (NCWGE) report sets forth the facts behind the headlines in six areas covered by Title IX that have been focused on in recent years: athletics in schools; education in the "STEM" subjects (science, technology, engineering and mathematics); career and technical education; employment in educational institutions; sexual harassment of students; and single-sex education.
Author Last Name:	NCGWE
Publisher:	National Coalition for Women and Girls in Education
Publication Date:	2008
Source:	NCGWE
Source Type:	Full text, Executive summary

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Title IX Blog

Resource Title:	Title IX Blog
Description/Annotation:	Blog authored by Erin Buzuvis, Associate Professor of Law, Western New England College, Kristine Newhall, Ph.D. candidate in Women's Studies, University of Iowa and Sudha Setty, Associate Professor of Law, Western New England College on Title IX. Includes references to other topical blogs and related websites, bibliographies and books. Frequent postings and topical resources make this a valuable current resource.
Author Last Name:	Buzuvis
Author First Name:	Erin
Additional Author:	Newhall
:	Kristine

Additional Author: Setty
:
Sudha
Source Type: Blog

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Legal Considerations](#)

Title IX of the Education Amendments of 1972 20 U.S.C. § 1681 et seq.

Resource Title: Title IX of the Education Amendments of 1972 20 U.S.C. § 1681 et seq.
Description/Annotation: U.S. Dept. of Justice webpage with overview of Title IX, link to statute, legal manual and investigation procedures manual.
Author Last Name: U.S. Dept of Justice
Publication Date: 2002
Source: U.S. Dept of Justice
Source Type: Website

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) [Educational Factors](#)
» [Legal Considerations](#)

To Recruit and Advance: Women Students and Faculty in Science and Engineering

Resource Title: To Recruit and Advance: Women Students and Faculty in Science and Engineering
Description/Annotation: This 148 page book is an excellent resource for colleges and universities looking for best practices for recruiting, retaining, and promoting women in science and engineering academia. It includes samples of actions taken by colleges and universities to improve career success for women academics in science and engineering. Some of the issues discussed are recruiting women, reducing attrition in early undergraduate years, improving retention at critical transition points, and increasing tenure track recruiting and

tenure rate. For academics, university leadership, and university department heads.

Author Last Name: Committee on the Guide to Recruiting and Advancing Women Scientists and Engineers in Academia

Additional Author: Committee on Women in Science and Engineering

Additional Author: National Research Council

Publisher: The National Academies Press

Publisher Location: Washington, D.C.

Publication Date: 2006

Page Numbers: 1-148

Source: NAP

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

To Recruit and Advance: Women Students and Faculty in Science and Engineering

Resource Title: To Recruit and Advance: Women Students and Faculty in Science and Engineering

Description/Annotation: Although more women than men participate in higher education in the United States, the same is not true when it comes to pursuing careers in science and engineering. To Recruit and Advance: Women Students and Faculty in Science and Engineering identifies and discusses better practices for recruitment, retention, and promotion for women scientists and engineers in academia. Seeking to move beyond yet another catalog of challenges facing the advancement of women in academic science and engineering, this book describes actions actually taken by universities to improve the situation for women.

Author Last Name: NRC

Publisher: National Academies Press, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2006

Page Numbers: 148
Source: National Academies Press
Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: Book Topical Categories: Career Factors Cultural Influences Educational Factors Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Educational Factors » Retention Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Tools for Change in STEM

Resource Title: Tools for Change in STEM

Description/Annotation: The Tools for Change in STEM website offers a variety of resource, including "Workshops in a Box", designed to improve retention of women in STEM education and careers. The most straightforward way to maintain a competitive workforce of trained professionals in the STEM (science, technology, engineering and mathematics) disciplines is to staunch the flow of women out of these professions. Two prominent researchers who have focused for more than two decades on documenting the reasons STEM disciplines' have been unable to attract and retain women have partnered with the Association for Women in Science (AWIS) to leverage their extensive research by creating sustainable tools to level the playing field for women in academic STEM disciplines. Now they are offering a series of short visual presentations aimed at a variety of audiences for use in different settings. These workshops review all they have learned about what works and what doesn't in creating a workplace which doesn't push out women out of the pipeline.

Author Last Name: Mason
Author First Name: Mary Ann
Additional Author: Williams
:
Joan
Source Type: Web site

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Hiring Practices](#) [Cultural Influences](#) » [Implicit Bias](#) [Career Factors](#) » [Legal Considerations](#) [Publications by Funder](#) » [NSF-HRD-ADVANCE](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Tenure Policies & Practices](#)

Top 10 Ways To Retain Students in Computing

Resource Title: Top 10 Ways To Retain Students in Computing

Description/Annotation: This NCWIT webpage highlights the top ten evidence-based ways to retain undergraduate students in computing. The resource also provides links to additional CS retention ideas and efforts including curriculum reform, strategic planning, and evaluation.

Author Last Name: NCWIT

Publisher: NCWIT

Publication Date: 2011

Source: NCWIT

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Top Management-Team Diversity and Firm Performance: Examining the Role of Cognitions

Resource Title: Top Management-Team Diversity and Firm Performance: Examining the Role of Cognitions

Description/Annotation: With the attention on diversity in teams, the authors of this 14 page article, investigated the relationship between demographic diversity and cognitive diversity. Using data from 35 simulated firms and 159 managers in executive educational programs, three questions were researched. The questions are how does demographic diversity affect cognitive diversity, what are the effects of team cognitive diversity of performance, and does firm performance affect cognitive diversity of the team? For industry leaders and management.

Author Last Name: Kilduff

Author First Name: Martin

Additional Author: Angelmar

: Reinhard
Additional Author: Mehra
: Ajay
Publisher: Institute of Management Sciences
Publisher Location: Providence, RI
Publication Date: 2000, Jan
Page Numbers: 21-34
Publication Title: Organization Science
Volume: 11
Issue: 1
Source: JSTOR
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management](#)

Tracking Financial Aid and Persistence of Women, Minority, and Needy Students in Science, Engineering, and Mathematics

Resource Title: Tracking Financial Aid and Persistence of Women, Minority, and Needy Students in Science, Engineering, and Mathematics

Description/Annotation: This longitudinal research study focused on persistence and financial aid of women, underrepresented minorities, and needy students majoring in science, engineering, and mathematics (SEM) in a large, public university in a metropolitan area. Women, underrepresented minorities, and needy students received more gift aid than other student populations. However, only women had lower departure rates and graduated at higher rates than other SEM student populations.

Author Last Name: Fenske
Author First Name: Robert H.
Additional Author: Porter

: John D.
Additional Author: DuBrock
: Caryl P.
Publication Date: 2000, Feb
Page Numbers: 67-94
Publication Title: Research in Higher Education
Volume: 41
Issue: 1
Source: SpringerLink
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#)
» [Retention](#)

Training Scientists to Make the Right Moves: A Practical Guide to Developing Programs in Scientific Management

Resource Title: Training Scientists to Make the Right Moves: A Practical Guide to Developing Programs in Scientific Management
Description/Annotation: This book takes you step by step through the behind-the-scenes activities that result in a successful training event.
Author Last Name: Burroughs Wellcome Fund
Additional Author: Howard Hughes Medical Institute
Publisher: Howard Hughes Medical Institute & Burroughs Wellcome Fund
Publisher Location: Chevy Chase, MD
Publication Date: 2006
Page Numbers: 1-127
Source: HHMI
Source Type: Full text

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Trajectories of Electrical Engineering and Computer Engineering Students by Race and Gender

Resource Title:	Trajectories of Electrical Engineering and Computer Engineering Students by Race and Gender
Description/Annotation:	Using a dataset from universities in the U.S. that includes over 70,000 students who majored in engineering, this paper describes the outcomes for students matriculating in and migrating into electrical engineering (EE) and computer engineering (CpE). The paper includes retention rates, graduate rates, and trajectories of EE and CpE students. Results indicate that although men consistently outnumber women in EE and CpE, the rates of matriculation and six-year graduation vary by race and gender. These findings illustrate the importance of disaggregating by engineering major as well as race and gender to improve recruitment and retention overall. Funded by NSF GSE under award #0734085 & #0734062.
Author Last Name:	Lord
Author First Name:	S.M.
Additional Author:	Layton
:	R.A.
Additional Author:	Ohland
:	M.W.
Publisher:	IEEE Education Society
Publication Date:	2011, Nov
Page Numbers:	610-618
Publication Title:	IEEE Transactions on Education
Volume:	54
Issue:	4
Source:	IEEE
Source Type:	Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Transformation: From Teacher-Centered to Student-Centered Engineering Education

Resource Title:	Transformation: From Teacher-Centered to Student-Centered Engineering Education
Description/Annotation:	In this six-page article, the authors suggest shifting from teacher-centered to student-centered paradigms to promote active learning. This can be accomplished as professors model thinking/processing skills, identify students' cognitive development, develop questions that facilitate exploration/growth, introduce visual tools to aid establishing connections, provide group learning settings, use analogies and metaphors, and provide a "no-risk" student feedback channel for information. While implementing such strategies can be difficult, especially due to the time required to change curricula, the shift should provide a better learning environment for students.
Author Last Name:	Catalano
Author First Name:	George
Additional Author:	Catalano
:	Karen
Publisher:	American Society for Engineering Education (ASEE)
Publication Date:	1999, Jan
Page Numbers:	59-64
Publication Title:	Journal of Engineering Education
Volume:	88
Issue:	1
Source:	PSU
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Transformative Outreach – The FREE (Female Recruits Explore Engineering) Project

Resource Title: Transformative Outreach – The FREE (Female Recruits Explore Engineering) Project

Description/Annotation: The FREE project is a longitudinal intervention-oriented research study offering new perspectives through the implementation of innovative methodology focused on understanding why so few high school girls pursue engineering. The results of the study are clear—with the necessary social capital, ‘community’ support over time, and a self- and peer-guided journey into relative engineering spaces—interest and choice is significantly impacted.

Author Last Name: Bruning

Author First Name: Monica

Additional Author: Bystydzienski

:

Additional Author: Eisenhart

:

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Page Numbers: 8

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Transforming the Academic Workplace: An Evaluation of the ADVANCE Program in Colleges of Engineering

Resource Title: Transforming the Academic Workplace: An Evaluation of the ADVANCE Program in Colleges of Engineering

Description/Annotation: Paper presented at the 2010 ASEE annual conference reviewing the impact of the first two rounds of ADVANCE IT grants on engineering schools. Contains data comparing number of women faculty pre and post grant and with peer institutions.

Author Last Name: Zajicek

Author First Name: Anna

Additional Author: Rencis

: Joseph

Additional Author: Morimoto

: Shauna

Additional Author: Hunt

: Valerie

Publisher: American Society for Engineering Education (ASEE)

Publisher Location: Washington DC

Publication Date: 2010

Page Numbers: 20

Source: ASEE

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

Transportation: Reconceptualizing Data Collection

Resource Title: Transportation: Reconceptualizing Data Collection

Description/Annotation: This case study from Stanford's "Gendered Innovations" analyzes the way statistics are gathered and assessed in transportation surveys. According to the case study, public transport systems are typically designed around the needs of commuters and the mobility associated with caring work, including childcare and elder care, has typically not figured into transportation design. The case study indicates that gathering data disaggregated by sex and other variables intersecting with sex and gender improves transportation research and policy.

Author Last Name: Schiebinger

Author First Name: L.
Additional Author: Klinge
:
Additional Author: Sanchez de Madariaga
:
Additional Author: Schraudner
:
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2011
Source: Stanford University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Trends in Educational Equity of Girls & Women: 2004

Resource Title: Trends in Educational Equity of Girls & Women: 2004
Description/Annotation: Statistical report presenting 38 indicators of educational equity for U.S. girls and women from K12 through to employment. Update to 2000 report, report presents the status of females relative to males.
Author Last Name: Freeman
Author First Name: Catherine
Publisher: U.S. Dept of Education, Institute of Education Statistics
Publisher Location: Washington, D.C.
Publication Date: 2004, Nov
Page Numbers: 116
Publication Title: NCES 2005016
Source: NCES

Source Type: Executive Summary, Full text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Trends in Women's Representation in Science and Engineering

Resource Title: Trends in Women's Representation in Science and Engineering

Description/Annotation: This article discusses trends related to women's gains in doctoral degrees in science and engineering. Results from the 1996-2006 summary reports of the Survey of Earned Doctorates (SED) in US Universities indicate that the percentage of women receiving doctorates in science and engineering has steadily increased. However, when the data are disaggregated by citizenship, a different picture emerges. The percentage of doctorates awarded to U.S. citizen and permanent resident women has remained basically unchanged in the past 10 years. All the gains in women's representation are due to the increase in foreign women receiving doctorates from U.S. universities.

Author Last Name: Ferreira

Author First Name: M.M.

Publication Date: 2009

Page Numbers: 191-203

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 3

Source: INES

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

TryEngineering.org

Resource Title: TryEngineering.org

Description/Annotation: TryEngineering.org is a portal about engineering and engineering careers for students (ages 8-18), their parents, their teachers and their school counselors.

Web site Link: [Link to Resource](#)

Resources: Topics include:

- Information on becoming an engineer, including descriptions of degree fields, academic and outreach programs, education and career path guidance.
- Life of an Engineer includes profiles of current engineers and provides a venue for students to pose questions to professional engineers and engineering students.
- Summer camps, competitions, internships and research positions
- Worldwide accredited engineering degree programs
- Lesson plans by age
- Engineering games
- A monthly newsletter is also freely available.

Site Access Details: The site is global in coverage and accessible in English, Russian, French, German, Spanish, Portuguese, Chinese and Japanese. All site resources are available without registration. Demographics and resource feedback are collected in voluntary surveys on resource pages.

Partners and Funding: The site is a joint venture funded by IEEE, IBM, TryScience, Sloan Career Cornerstone Center and SAE International.

Last Update Date: August 15, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » Industry](#)

TryScience.org

Resource Title: TryScience.org

Description/Annotation: TryScience.org is a multi-lingual resource for parents and teachers to introduce students to the excitement of contemporary science and technology through on and offline interactivity with science and technology centers worldwide.

Web site Link: [Link to Resource](#)

More: Targeted materials for parents, teachers, scientists and engineers.

Resources: Site resources include:

- Experiments - online, offline experiments with kid's comments
- Field Trips - locate a science center across the world; visit in person or virtually via webcams and recorded audio
- Adventures - StarFleet Adventure with other 'cadets'

Site Access Details: This site is publicly accessible.

Partners and Funding: TryScience is brought to you through a partnership between IBM Corporation, the New York Hall of Science (NYHOS), the Association of Science-Technology Centers (ASTC), and science centers worldwide.

Last Update Date: June 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Turning Limited Resources into Increased Recruitment & Retention of Female Students in Technology Programs

Resource Title: Turning Limited Resources into Increased Recruitment & Retention of Female Students in Technology Programs

Description/Annotation: The CalWomenTech Project, funded and highlighted by the National Science Foundation, has assisted eight California college technology programs in recruiting and retaining more women during an economic recession and state budget crisis. Even in this tough economic environment, the Project model and Project strategies have resulted in increases of female students in technology programs where they are underrepresented and in improved completion rates for both female and male students. This paper presents the CalWomenTech Project's numbers on the recruitment and retention of technology students, both male and female. Funded by NSF GSE under award #0533564.

Author Last Name: Milgram

Author First Name: Donna

Publication Date: 2011

Publication Title: 2011 ASEE Annual Conference and Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Turnover Among High School Physics Teachers

Resource Title: Turnover Among High School Physics Teachers

Description/Annotation: An 8-page report from the American Institute of Physics (AIP) "Reports on High School Physics Series", identifies the turnover among U.S. high school physics teachers. The report summarizes the findings of the 2008-2009 nationwide survey of approximately 3,600 public and private high schools across the United States to inquire about physics availability and offerings. The report includes data and figures on teaching experience and movement, future teaching plans, sources of high school physics teachers, and age distribution. According to the report, approximately 4% of teachers who taught at least one physics course said that they planned to retire at the end of the academic year.

Author Last Name: White

Author First Name: Susan

Additional Author: Tesfaye

: Casey Langer

Publisher: AIP Statistical Research Center

Publisher Location: College Park, MD

Publication Date: 2011, Oct

Page Numbers: 1-8

Volume: 2011

Issue: October

Source: AIP

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles Data and Statistics](#) » [Reports Topical Categories: Career Factors Career Factors](#) » [Employment Career Factors](#) » [Retention](#)

Twenty First Century Women Prefer Summer Science Kamp

Resource Title: Twenty First Century Women Prefer Summer Science Kamp

Description/Annotation: This paper discusses summer enrichment programs at Kettering University in cooperation with the Genesee Area Math and Science Technology Program. The paper discusses program initiation and objectives, recruiting and processing applicants, and various hands-on activities. To improve the programs, data on observations and suggestions as well as identification of problems are collected yearly. This article describes the effectiveness of these programs based on statistical analysis of the collected data and sums it up with participants' comments.

Author Last Name: Sanders

Author First Name: Matthew S.

Additional Author: McAllister

: Robert M.

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports Articles/Reports](#) » [Conference Papers/Proceedings Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity University Programs](#)

Twenty-Five Years of NWSA: Have We Built the Two-Way Streets Between Women's Studies and Women in Science and Technology?

Resource Title: Twenty-Five Years of NWSA: Have We Built the Two-Way Streets Between Women's Studies and Women in Science and Technology?

Description/Annotation: A survey conducted in 1988 of the annual meetings of the National Women's Studies Association (NWSA) from 1979 to 1986 documented the percentage of individual papers and entire sessions in the conferences focused on science, technology, or health. The twenty-fifth anniversary of NWSA becomes an appropriate time to update these percentages and review the past, current, and future impacts of the two-way street of science and technology on NWSA and of NWSA on the broader scientific and technology communities.

Author Last Name: Rosser
Author First Name: Sue V.
Publication Date: 2002
Page Numbers: 103-123
Publication Title: NWSA Journal
Volume: 14
Issue: 1
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Articles/Reports](#) » [Literature Reviews](#)

Twenty-five years of research on gender and ethnic differences in math and science career choices: What have we learned?

Resource Title: Twenty-five years of research on gender and ethnic differences in math and science career choices: What have we learned?

Description/Annotation: The chapter addresses a fundamental question: Why are there significant gender differences in educational and career choices in the areas of math and science?

Author Last Name: Jacobs
Author First Name: Janis E.
Publication Date: 2005

Page Numbers: 85-94
Publication Title: New Directions for Child and Adolescent Development
Issue: 110
Source: University of Michigan
Source Type: Full Text

Resource Type Categories: [Book](#) [Book » Book Chapter](#) Topical Categories: [Educational Factors » Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Two Decades of Increasing Diversity More than Doubled the Number of Minority Graduate Students in Science and Engineering

Resource Title: Two Decades of Increasing Diversity More than Doubled the Number of Minority Graduate Students in Science and Engineering

Description/Annotation: This 9-page report outlines findings from the fall 2009 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS), an annual survey of all academic institutions in the U.S. that grant research based master's degrees or doctorates in science, engineering, or selected health (SEH) fields. The report presents figures and data on graduate student enrollment and postdoctoral appointees in science and engineering (S&E) fields, specifically analyzing the number of minority graduate students. Results indicate that black and Hispanic U.S. citizens and permanent residents remain underrepresented within the S&E graduate student population when compared with the adult U.S. citizen population.

Author Last Name: Einaudi
Author First Name: Peter
Publisher: National Science Foundation
Publisher Location: Arlington, VA
Publication Date: 2011, Jul
Page Numbers: 1-9

Publication Title: InfoBrief NCSES: National Center for Science and Engineering Statistics
Source: NSF
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Educational Factors](#) » [Retention](#)

Two Executives, One Career

Resource Title: Two Executives, One Career
Description/Annotation: Two women tell the story of how they created a job-share situation as bank executives, and their experiences as they developed a win-win situation. When family circumstances prompted the women to want more flexibility in their lives, they developed an opportunity to sell themselves as a unit and benefit the company at the same time. Good for women in the workplace looking for more flexibility while still working in a challenging and high level career.
Author Last Name: Cunningham
Author First Name: Cynthia R.
Additional Author: Murray
: Shelley S
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2005, Feb
Page Numbers: 1-7
Publication Title: Harvard Business Review
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Career Factors](#) » [Professional Development](#)

Two Truths and a Lie: Performing Professorhood/Motherhood

Resource Title:	Two Truths and a Lie: Performing Professorhood/Motherhood
Description/Annotation:	This 12-page article is a powerful narrative about a theater professor's experiences. She gave birth to her first child two weeks before starting her first job at a large university.
Author Last Name:	Carver
Author First Name:	Heather
Publisher:	Journal of American Folklore
Publisher Location:	Washington, D.C.
Publication Date:	2005, Winter
Page Numbers:	78-89
Publication Title:	Journal of American Folklore
Volume:	118
Issue:	467
Source:	Project Muse
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Professional Development](#)

U.S. Women in Science and Engineering, 1960-1990: Progress Toward Equity?

Resource Title:	U.S. Women in Science and Engineering, 1960-1990: Progress Toward Equity?
Description/Annotation:	The article presents an overview of the progression of women in science and engineering between 1960 and 1990. While the majority of the data presented is statistical in nature, the authors also presents a theory regarding social factors and career choice, which implies that intervention efforts to help young women feel more comfortable with science and with themselves as potential scientists are not enough. The author additionally presents her prospects for achieving equity. Her conclusions are that

transforming the culture of science is the key to narrowing the science and engineering gender gap. Rather than assimilating women to existing standards, interventions must focus on broadening the cultural norms of the profession.

Author Last Name: Barber
Author First Name: Leslie A.
Publisher: Ohio State University Press
Publication Date: 1995, Mar-April
Page Numbers: 213-234
Publication Title: Journal of Higher Education
Volume: 66
Issue: 2
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

UC and the SAT: Predictive Validity and Differential Impact of the SAT I and SAT II at the University of California

Resource Title: UC and the SAT: Predictive Validity and Differential Impact of the SAT I and SAT II at the University of California

Description/Annotation: This 25-page report discusses the results and implications of a study of the SAT I and SAT II and their ability to predict student success at the University of California. The study looked at the relationship between SAT I and SAT II scores and educational outcomes for approximately 78,000 first-time college freshmen. The report is divided into four sections: Part I analyzes the power of the SAT I and SAT II to predict student success; Part II analyzes the way background and socioeconomic status affects predictive validity of the SAT exams; Part III examines the differential impact of the SAT I and SAT II on different racial/ethnic groups; and Part IV discusses the implications of these findings on the UC admissions policy.

Author Last Name: Geiser
Author First Name: Saul
Additional Author: Studley
:
Publisher: University of California
Publisher Location: Berkeley, CA
Publication Date: 2001
Page Numbers: 25
Source: Taylor and Francis
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Admissions Bias](#) [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Uncovering Truffles: The Scarcity and Value of Women in STEM

Resource Title: Uncovering Truffles: The Scarcity and Value of Women in STEM

Description/Annotation: Have you ever glanced around to realize you're the only woman in the room? Does a small voice in your head whisper you don't belong? Do you fear for your daughter in math and science? The research says female students and professionals in STEM - Science, Technology, Engineering and Math - are angry, frustrated and discouraged. No one knows these swirling emotions better than engineering psychologist Dr. Melanie Polkosky, who worked for over a decade in the STEM field where women are most underrepresented. In *Uncovering Truffles*, Polkosky examines the underlying reasons girls shy away from math and science and over half of female professionals leave their careers before the age of 40. Following a review of cutting-edge cognitive-neuroscience research and mythological perspectives on femininity, Polkosky offers twenty practical lessons to uncover the priceless value of women who integrate their masculine and feminine aspects, along with a hopeful vision for the future of inclusive work. *Uncovering Truffles* combines searing memoir with tools and inspiration that encourage women to design engaging and meaningful careers, increase gender diversity and establish supportive, healthy workplaces. Written with

wisdom and startling honesty, Polkosky offers a clarion call to action for any forward-thinking individual who believes STEM, and business in general, can be a mechanism for serving humanity's greater good.

Web site Link: [Link to Resource](#)
Contact Name: Melanie Polkosky
Contact E-mail: melanie@melaniepolkosky.com

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Individual Beliefs and Behaviors » CognitionCareer Factors » Employment Educational Factors » Faculty Student Interaction Cultural Influences » Family Individual Beliefs and Behaviors » Family & Peers Cultural Influences » Gender Diversity Cultural Influences » Implicit Bias Diversity Orgs & Pgms for Women and Girls » IndustryCareer Factors » Leadership & Management Career Factors » Mentoring Career Factors » Organizational Culture Educational Factors » Pedagogy & Instruction Educational Factors » Retention Career Factors » Retention Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM Career Interest/Awareness Cultural Influences » Stereotype Threat Career Factors » Stereotype Threat Educational Factors » Stereotype Threat on Testing

Under the Microscope: A Decade of Gender Equity Projects in the Sciences

Resource Title: Under the Microscope: A Decade of Gender Equity Projects in the Sciences

Description/Annotation: Report synthesizes trends in gender equity projects initiated by the AAUW and NSF over a 10-year span. Recommendations include better integration of in-school and out-of-school projects and a need for consistency in evaluating project outcomes. Educators, practitioners, researchers, and funding organizations with an interest in gender equity and the sciences will find this report useful in planning, developing, and funding future STEM gender equity projects.

Author Last Name: AAUW

Publisher: AAUW Educational Foundation

Publisher Location: Washington, D.C.

Publication Date: 2004

Publication Title: Under the Microscope: A decade of gender equity projects in the sciences

Source: AAUW

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Diversity Orgs & Pgms for Women and Girls](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Under the Microscope: Where Women and Science Connect

Resource Title: Under the Microscope: Where Women and Science Connect

Description/Annotation: The goals of this website and the related publications are to increase the visibility of women in STEM fields; to increase awareness of both traditional and non-traditional career pathways for STEM careers; to provide role models through personal stories from women in STEM fields; to highlight access to key STEM concepts presented in an engaging and socially-relevant format; and to assist parents and educators in encouraging young women to pursue STEM careers.

Web site Link: [Link to Resource](#)

Logo:

Resources:

- Imaginative tag cloud to discover stories and interviews from women in STEM
- Books about women in STEM
- Frequent Blog entries by multiple authors
- Resources organized by audience and topic

Site Access Details: The site has publicly accessible resources as well as a registered users area. Anyone can register to use the site.

Partners and Funding: National Science Foundation, IBM, Feminist Press, Women Writing Science Project

Contact Name: Under The Microscope at the Feminist Press at the City University of New York 365 Fifth Avenue, Suite 5406 New York, New York 10016

Contact E-mail: editor@underthemicroscope.com

Last Update Date: May 21, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Undergraduate Engineering - A Comparative Study of First Year Performance in Single Gender Campuses

Resource Title: Undergraduate Engineering - A Comparative Study of First Year Performance in Single Gender Campuses

Description/Annotation: The Jerusalem College of Technology is an institution for higher education in Israel, where the majority of the students study towards an undergraduate degree in Engineering. The studies are held on three different campuses, one campus for men and two for women. This paper describes the organization of the Foundation Year (i.e. the basic first year courses), and discusses the similarities and differences between the male and female populations, with respect to their learning skills and performances.

Author Last Name: Dana-Picard

Author First Name: Thierry

Additional Author: Kidron

:

Additional Author: Ivy

Additional Author: Komar

:

Additional Author: Meir

Additional Author: Steiner

:

Additional Author: Joseph

Publication Date: 2005, Dec

Page Numbers: 469-476

Publication Title: European Journal of Engineering Education

Volume: 30

Issue: 4

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Undergraduate Engineering Diversity Course: Women and Men In The Engineering Workplace

Resource Title:	Undergraduate Engineering Diversity Course: Women and Men In The Engineering Workplace
Description/Annotation:	This paper discusses an undergraduate engineering diversity course, entitled: “Women and Men in the Engineering Workplace”, which was offered as an experimental course in the spring semester of 2003 in the College of Engineering at Iowa State University (ISU). The course was cross-listed with the ISU’s Women’s Studies Program, and is believed to be the first such engineering diversity course in the nation, and perhaps the first women’s studies course to be offered by an engineering college. The students were “recruited” by the instructors representing the college’s eight engineering departments, and were predominantly upper class persons. In order to ensure a gender balance in the class itself, the enrollment was ‘engineered’ so that half of the class was men, and half women. Although the course was centered on increasing gender diversity in the historically male dominated profession of engineering, race and class aspects of diversity were also dealt with in the class.
Author Last Name:	Heising
Author First Name:	Carolyn D.
Additional Author:	Goodwin
:	Mary E.
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Cultural Influences](#) [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Cultural Influences](#)
» [Gender Diversity](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Undergraduate Institutions that Foster Women and Minority Scientists

Resource Title: Undergraduate Institutions that Foster Women and Minority Scientists

Description/Annotation: This article reports the results from two studies: one identifying universities that produced relatively large numbers of students of color who went on to earn doctorates in the sciences across one decade, and a second study identifying universities that produced relatively large numbers of women who earned science doctorates across a different decade. Institutions that were identified in both studies can be described as providing unique environments that fostered under-represented scientists.

Author Last Name: Stages

Author First Name: Frances K.

Additional Author: Hubbard

: Steven

Publication Date: 2009

Page Numbers: 77-91

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 1

Source: Begell House

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Undergraduate Science Education: The Impact of Different College Environments on the Educational Pipeline in the Sciences

Resource Title: Undergraduate Science Education: The Impact of Different College Environments on the Educational Pipeline in the Sciences

Description/Annotation: The principal purpose of this empirical study was to identify factors in the backgrounds and college experiences of American undergraduate students that affect their interest in studying

science and in pursuing science-related careers. Results indicate that the strongest predictor of changes in students' interest in science majors or careers is the students' entering level of mathematical or academic competency. The greater the proportion of a student's peers majoring in a SME field the more likely that person is to choose a career in the same field. Useful longitudinal study as well as statistical data.

Author Last Name: Astin
Author First Name: Alexander W.
Additional Author: Astin
: Helen S.
Publication Date: 1992
Page Numbers: 384
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Undergraduate Science Majors: Gender Differences in Who Goes to Graduate School

Resource Title: Undergraduate Science Majors: Gender Differences in Who Goes to Graduate School

Description/Annotation: This 20-page paper reports on a study to assess the factors that influence women's persistence in science, mathematics, and engineering after obtaining a bachelor's degree. Includes a discussion of factors that influence women's interest in science (insufficient early preparation, lack of parental encouragement, concerns about balancing career with family, negative perceptions about life as a scientist, few role models and mentors, and unwelcoming scientific pedagogy. The data for the study was drawn from a national longitudinal study as a part of the Cooperative Institutional Research Program (CIRP) to examine rates of graduate school attendance of both men and women independently in the fields of biological sciences, engineering, physical sciences, math, and computer sciences, in order to study

the effects of environments and experiences on career outcomes. The study revealed disciplinary variation in the rate of grad school attendance, along with gender variation in the choice to attend graduate school and the fields of study in graduate school. Commitment to scientific inquiry, a peer community that values science, and personal desires to make money were important factors in the choice to enter graduate school.

Author Last Name: Sax
Author First Name: Linda J.
Publication Date: 2001
Page Numbers: 153-172
Publication Title: The Review of Higher Education
Volume: 24
Issue: 2
Source: Project Muse
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Undergraduate Women Engineering Their Professional Identities

Resource Title: Undergraduate Women Engineering Their Professional Identities
Description/Annotation: This paper discusses a study exploring females' personal and professional identity construction throughout their undergraduate studies in engineering. The author developed a model of identity that emphasized the role of engineering in young women's descriptions of who they are as students and future engineers. Findings from this study could be useful in helping prospective and practicing science and engineering educators develop academic programs, curriculum, and best practices.

Author Last Name: Capoblanco
Author First Name: Brenda M.
Publication Date: 2006

Page Numbers: 95-117
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 12
Issue: 2-3
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Undergraduate Women in Chemical Engineering: Exploring Why They Come

Resource Title: Undergraduate Women in Chemical Engineering: Exploring Why They Come

Description/Annotation: This paper addresses some of the reasons that women choose to major in chemical engineering. Using quantitative data from the MIDFIELD database, the paper displays the relative attractiveness of chemical engineering to women compared with other engineering fields and explores findings from two focus groups with women chemical engineering majors to shed light on why these women chose the major. The full paper is available in PDF format. Funded by NSF GSE under award #0734062 & #0734085.

Author Last Name: Brawner
Author First Name: Catherine E.
Additional Author: Lord
:
Susan M.
Additional Author: Ohland
:
Matthew W.
Publisher: ASEE
Publisher Location: Washington, DC
Publication Date: 2011

Page Numbers: 16
Publication Title: 118th ASEE Annual Conference and Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Individual Beliefs and Behaviors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Undergraduate Women in Computer Science: Experience, Motivation and Culture

Resource Title: Undergraduate Women in Computer Science: Experience, Motivation and Culture

Description/Annotation: Interim report covering the first year studying the experiences of undergraduate women studying computer science at Carnegie Mellon University, with a specific eye toward understanding the influences and processes whereby they attach themselves to or detach themselves from the field. This report, midway through the two-year project, recaps the goals and methods of the study, reports on our progress and preliminary conclusions, and sketches our plans for the final year and the future beyond this particular project.

Author Last Name: Fisher

Author First Name: Allan

Additional Author: Margolis

: Jane

Additional Author: Miller

: Faye

Publisher: ACM

Publication Date: 1997

Page Numbers: 106-110

Publication Title: ACM SIGCSE Bulletin

Volume: 29

Issue: 1
Source: ACM
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Undergraduate Women in Science and Engineering: Effects of Faculty, Fields, and Institutions Over Time

Resource Title: Undergraduate Women in Science and Engineering: Effects of Faculty, Fields, and Institutions Over Time

Description/Annotation: Taking an institutional approach to the determinants of outcomes for women in science and engineering, this article examines the effects on women's percentages among undergraduate majors and among degree recipients of four basic factors: (1) the percentage of faculty who are women in the students' major science/engineering area; (2) the students' disciplines; (3) the type of institution in which students are enrolled; and (4) a time trend. Results indicate that that the percentages of women among undergraduate science/engineering majors and degree recipients are associated with the percentages of women among the faculty in these fields.

Author Last Name: Sonnert
Author First Name: Gerhard
Additional Author: Fox
: Mary Frank
Additional Author: Adkins
: Kristen
Publication Date: 2007, Dec
Page Numbers: 1333-1356
Publication Title: Social Science Quarterly
Volume: 88
Issue: 5
Source: Wiley

Source Type: Abstract, Reprint request

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction Educational Factors](#) » [Retention](#)

Undergraduate Women in Science and Engineering: Providing Academic Support

Resource Title: Undergraduate Women in Science and Engineering: Providing Academic Support

Description/Annotation: This article is a literature review of four areas (classroom climate, self-confidence, interaction with faculty and interaction with peers) of importance to the success of women in science and engineering. In addition to summaries of research findings from various studies, the paper includes suggestions for teachers on how to implement strategies to address the issues in each area.

Author Last Name: Montgomery

Author First Name: Susan

Additional Author: Barrett

: M.C.

Publisher: The Center for Research on Learning and Teaching

Publisher Location: University of Michigan

Publication Date: 1997

Page Numbers: 4

Issue: CRLT Occasional Paper No. 8

Source: University of Michigan

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Undergraduate Women's Participation in Professional Organizations

Resource Title:	Undergraduate Women's Participation in Professional Organizations
Description/Annotation:	Survey of Rowan University Engineering students from 2001-2002 assessing how involvement in professional organizations while still in school affects student satisfaction with their engineering programs. Study found that participation in discipline-specific organizations had positive effects on student grades, self-confidence, and commitment to their futures in engineering.
Author Last Name:	Hartman
Author First Name:	Harriet
Additional Author:	Hartman
:	Moshe
Publisher:	Begell House
Publisher Location:	New York, NY
Publication Date:	2005
Page Numbers:	117-138
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	11
Issue:	2
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Underrepresentation of Women of Color in the Science Pipeline: The Construction of Science Identities

Resource Title:	Underrepresentation of Women of Color in the Science Pipeline: The Construction of Science Identities
Description/Annotation:	This study explores the experiences of sixteen women of color majoring in one of the STEM fields. Using all four dimensions of Gee's identity theory as a framework, this study represents an effort to understand how women of color are able to strengthen their science identities during their college and precollege experiences. Through the use of in-depth interviews, elements of all four dimensions of identity were captured and analyzed. Analysis of this data provided the opportunity to gain a greater perspective into the role that identity development has for encouraging persistence in science for this population of students.
Author Last Name:	Cegile
Author First Name:	Robert
Publication Date:	2011
Page Numbers:	271-293
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	17
Issue:	3
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Understanding Advice Seeking Behaviors of First Year Engineering Women

Resource Title:	Understanding Advice Seeking Behaviors of First Year Engineering Women
Description/Annotation:	Despite understanding the importance of undergraduate engineering women doing well in first-year, first semester math

classes, little is understood about the advice seeking behavior of this group. This presentation describes the advice seeking behaviors of a cohort of women receiving a C or below in this pivotal math course.

Author Last Name: Groll
Author First Name: Lorie Elizabeth
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Understanding current causes of women's underrepresentation in science

Resource Title: Understanding current causes of women's underrepresentation in science

Description/Annotation: This article aims to better understand women's underrepresentation in math-intensive fields and its causes. The authors review the past 20 years of data and reprise claims of discrimination and their evidentiary bases. The article concludes that differential gendered outcomes in the real world result from differences in resources attributable to choices and that such choices could be influenced and better informed through education if resources were so directed. The full article is available in PDF format.

Author Last Name: Ceci
Author First Name: Stephen J.
Additional Author: William
: Wendy M.
Publisher: Stanford University's Highwire Press
Publication Date: 2011, Feb
Page Numbers: 1-6

Publication Title: Proceedings of National Academy of Sciences of the United States of America
Source: PNAS
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Understanding Gender Differences in Job Dissatisfaction Among Science and Engineering Faculty

Resource Title: Understanding Gender Differences in Job Dissatisfaction Among Science and Engineering Faculty

Description/Annotation: This study examines the sources of job dissatisfaction among science and engineering faculty. Interview data from 42 female and a matched set of 40 male faculty members in science and engineering fields who reported on sources of job dissatisfaction are analyzed. Female faculty members more often report dissatisfaction with colleagues, workload, work/personal life issues and promotion and tenure processes compared to males.

Author Last Name: Callister

Author First Name: Ronda Roberts

Additional Author: Minnotte

: Krista Lynn

Additional Author: Sullivan

: Kimberly A.

Publication Date: 2009

Page Numbers: 223-243

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 15

Issue: 3

Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Understanding Interventions that Broaden Participation in Research Careers 2009

Resource Title: Understanding Interventions that Broaden Participation in Research Careers 2009

Description/Annotation: 136 page report created and described from 2009 conference sessions. Conference themes include pathway programs for each cohort, program evaluation techniques, effective use of tools such as NCWIT programs-in-a-box, creative teaching practices such as peer-led learning teams and theoretical learning models. Appendix has 46 figures prepared by CPST on the status of minorities and women in STEM.

Author Last Name: Chubin (ed)

Author First Name: Daryl E.

Additional Author: DePass (ed.)

: Anthony L.

Additional Author: Blockus (ed.)

: Linda

Publisher: UnderstandingInterventions.org

Publication Date: 2010

Page Numbers: 136

Publication Title: Embracing a Breadth of Purpose

Volume: III

Source: AAAS

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Understanding Our Students: A Longitudinal-Study of Success and Failure in Engineering With Implications for Increased Retention

Resource Title: Understanding Our Students: A Longitudinal-Study of Success and Failure in Engineering With Implications for Increased Retention

Description/Annotation: A large database was generated based on data collected on students' academic and non-academic characteristics as well as their successes and failures. The study presents a large statistical data set. The results of this research both confirm and add to the existing literature on student success and retention in engineering by examining the relationships among learning styles, study habits, and performance. The data do not suggest that making small curricular adjustments, introducing simple case studies, or convincing students to work harder and study more persistently will fix the problems of disparities in the success and retention of students. Longitudinal study, potentially good source of qualitative data.

Author Last Name: Leonhard

Author First Name: E.

Additional Author: Bernold
:
Joni E.

Additional Author: Spurlin
:
Chris M.

Publisher: ASEE

Publication Date: 2007

Page Numbers: 263-274

Publication Title: Journal of Engineering Education

Volume: 96

Issue: 3

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Educational Factors » Curriculum Educational Factors Educational Factors » Pedagogy & Instruction Educational Factors » Retention

Understanding The Barriers To Recruiting Women In Engineering And Technology Programs

Resource Title: Understanding The Barriers To Recruiting Women In Engineering And Technology Programs

Description/Annotation: This paper discusses the importance of addressing young women's internal barriers when analyzing recruiting strategies for engineering and technology. The normal anxieties encountered by teenage women are not independent of career development issues. These normal anxieties are the foundation of efforts needed to bring more women into engineering and technology.

Author Last Name: Thom

Author First Name: J.M.

Additional Author: Thompson

:

Additional Author: R.E.

Additional Author: Hoy

:

Publication Date: 2001

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » Self-perception

Understanding the Dearth of Women in Science

Resource Title: Understanding the Dearth of Women in Science

Description/Annotation: One page opinion article offering that cultural factors are mostly to blame for gender differences in representation in SMET/STEM. Ong describes small instances of bias and negative impact on women's confidence and desire to continue studies in science.

Author Last Name: Ong

Author First Name: Maria (Mia)

Publisher: Harvard

Publisher Location: Cambridge, MA

Publication Date: 2005, Jul

Publication Title: The Harvard Community Resource

Volume: 7

Issue: 1

Source: TERC

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Cultural Influences](#)

Understanding the factors affecting degree completion of doctoral women in the science and engineering fields

Resource Title: Understanding the factors affecting degree completion of doctoral women in the science and engineering fields

Description/Annotation: This chapter examines the retention and degree completion of doctoral women in the science fields. The research shows that the lower degree completion rate for women may be a result of fewer opportunities for research assistantships.

Author Last Name: Ampaw

Author First Name: Frim D.

Additional Author: Jaeger

: Audrey J.

Publication Date: 2011
Page Numbers: 59-73
Publication Title: New Directions for Institutional Research
Issue: 152
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) [Book » Book Chapter](#) Topical Categories: [Educational Factors](#) [Educational Factors » Retention](#)

Understanding the Influence of Parent Engineers on the College Major Choice of Their Daughters

Resource Title: Understanding the Influence of Parent Engineers on the College Major Choice of Their Daughters

Description/Annotation: This paper discusses a study of the role that parental influence plays on the enrollment of women in college STEM fields, particularly among well-qualified daughters of engineering parents. To understand this type of influence, interviews of engineering parent-daughter pairs were conducted. Findings suggest that engineering parents shape their daughters' perceptions of engineering in powerful ways. Participants indicated that: (1) the image of engineering is that of a male-dominated field of "nerds", and (2) this image needs to be collectively deconstructed by both the engineering colleges and the engineering business community. If qualified STEM women are to choose engineering in greater numbers, efforts need to be focused on both daughters and their parents rather than qualified STEM daughters alone.

Author Last Name: Hoffman

Author First Name: Herbert L.

Additional Author: St. Louis

: Timothy

Additional Author: Hoffman

: Jennifer Lee

Publication Date: 2010

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 16
Issue: 3
Source: Research Gate
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#) [Individual](#)
[Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Understanding the Role of Parental Support for IT Career Decision Making using the Theory of Self-authorship

Resource Title: Understanding the Role of Parental Support for IT Career Decision Making using the Theory of Self-authorship

Description/Annotation: Study evaluating parental impact on girl's/women's decision-making related to study and career choices in IT. Women were more likely to solicit input from others on career choices, but experienced greater conflict in evaluating diverse input.

Author Last Name: Meszaros

Author First Name: Peggy

Additional Author: Creamer
: Elizabeth G.

Additional Author: Lee
: Soyoung

Publication Date: 2009, Jul

Page Numbers: 392-395

Publication Title: International Journal of Consumer Studies

Volume: 33

Issue: 4

Source: Ingenta Connect

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Career Factors](#) » [Family Issues](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Understanding the Science Experiences of Successful Women of Color: Science Identity as an Analytic Lens

Resource Title: Understanding the Science Experiences of Successful Women of Color: Science Identity as an Analytic Lens

Description/Annotation: This qualitative study looks at science identity construction for 15 successful women of color through their undergraduate and graduate experiences in science. The authors explore similarities and differences of the science career path. Specifically, other people recognizing the woman as a scientist strongly influenced identity construction for women scientists. The article also explores the intersections of ethnicity and gender.

Author Last Name: Carlone

Author First Name: Heidi B.

Additional Author: Johnson

: Angela

Publisher: John Wiley & Sons, Inc.

Publication Date: 2007

Page Numbers: 1187-1218

Publication Title: Journal of Research in Science Teaching

Volume: 44

Issue: 8

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Understanding Women's Persistence in Engineering Careers

Resource Title: Understanding Women's Persistence in Engineering Careers

Description/Annotation: Women leave engineering at a rate 2 ½ times that of their male colleagues. Why? Using the Social Cognitive Career Theory, we examined the social and psychological predictors of withdrawal intentions among 2,056 women engineers. Women's decisions to leave engineering were shaped more by work-climate related factors than personal factors.

Author Last Name: Singh

Author First Name: Romila

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Unintended Consequences: How Science Professors Discourage Women of Color

Resource Title: Unintended Consequences: How Science Professors Discourage Women of Color

Description/Annotation: This study examined how 16 Black, Latina, and American Indian women science students reacted to their undergraduate science classes. Focuses on the meanings they made of the common features of university science, including large, competitive, fast-paced classes, poor teaching, and an unsupportive culture.

Author Last Name: Johnson

Author First Name: Angela C.

Publisher: Wiley Periodicals, Inc.

Publisher Location: Hoboken, NJ

Publication Date: 2007, Mar

Page Numbers: 805-821
Publication Title: Science Education
Volume: 91
Issue: 38477
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Unique Challenges for Women of Color in STEM Transferring from Community Colleges to Universities

Resource Title: Unique Challenges for Women of Color in STEM Transferring from Community Colleges to Universities

Description/Annotation: This article presents the issues faced by women of color in STEM fields as they transfer from community colleges to universities. According to the report, transfer rates are low for women of color enter higher education through community colleges, and retention rates of transfer students into STEM are even lower. Through interviews conducted with participants in the National Science Foundation–funded Futurebound program, the article reveals an atmosphere in which women of color transfer students experience attitudes and treatment signaling that they do not belong as well as preconceptions that transfer students are not adequately prepared. The article proposes a need for programs and policies to respond to these challenges and improve the transfer rates and retention of women of color in STEM fields.

Author Last Name: Reyes

Author First Name: Marie-Elena

Publisher: Harvard Education Publishing Group

Publisher Location: Cambridge, MA

Publication Date: 2011, Jun

Page Numbers: 241-263

Publication Title: Harvard Educational Review

Issue: Summer 2011
Source: HEPG
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation Educational Factors](#) » [Retention](#)

United States Department of Labor Women's Bureau

Resource Title: United States Department of Labor Women's Bureau

Description/Annotation: The Department of Labor Women's Bureau was created by law in 1920 to develop standards and policies to further the welfare of working women. Top initiatives today are Better Jobs, Better Earnings, Better Living. An online portal to extensive government information about and related to working women.

Web site Link: [Link to Resource](#)

More: A champion for working women in policy and law as a department • of the United States Department of Labor. Information is disseminated from one national office and ten regional offices across the country. Some of the topics covered include:

- retirement benefits
- health benefits
- wages and earnings
- employment trends
- education and training
- workplace safety

Resources:

- Resources
 - Initiatives
 - Information Quality Requests
 - Publications
 - Statistics
 - Freedom of Information Act
 - Archives
- News Room
 - Calendar of Events
 - Speeches
 - Press Releases
 - Public Affairs Staff

- [Links to Related Sites](#)

Site Access Details: Free access to all areas of the site and all publications for all users.

Partners and Funding: Federal government agency.

Contact E-mail: www.dol.gov/wb/contacts

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [Government](#)

University and Personal Factors that Hinder and Assist Women When Completing a Degree in Engineering

Resource Title: University and Personal Factors that Hinder and Assist Women When Completing a Degree in Engineering

Description/Annotation: This study addressed the university and personal factors that have hindered, motivated, and assisted women who were graduating with a degree in engineering. By studying and understanding the barriers that hinder women in completing a degree in engineering, as well as the factors that assist and encourage them, we can learn how to break down the barriers and how to facilitate the educational journey of female engineering students.

Author Last Name: Cordova-Wentling

Author First Name: Rose Mary

Additional Author: Camacho

: Cristina

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

University of Wisconsin-Madison Faculty Attrition Study

Resource Title: University of Wisconsin-Madison Faculty Attrition Study

Description/Annotation: In 2005, WISELI performed an exit interview study to determine "Why Women Leave." We interviewed women faculty who left UW-Madison STEM departments from 2001 through 2004. Experience with that study led to a request from the Office of the Provost to implement an exit interview study for all UW-Madison faculty who leave, on an annual basis. Beginning in 2007 and working with the Office of the Provost and Human Resources, Dr. Pribbenow identified and interviewed faculty who left the UW-Madison in the prior year for reasons other than retirement. In 2008/09, the Faculty Attrition Study was expanded to include retirees. This study will be implemented annually as long as the Provost's Office requests.

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2006, 2009+

Source: WISELI

Source Type: Web site - study description, interview protocols, reports

Resource Type Categories: [Articles/Reports](#) » [Surveys](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Unlocking the Barriers to Women and Minorities in Computer Science and Information Systems Studies: Results from a Multi-Methodological Study Conducted at Two Minority Serving Institutions

Resource Title: Unlocking the Barriers to Women and Minorities in Computer Science and Information Systems Studies: Results from a Multi-Methodological Study Conducted at Two Minority Serving Institutions

Description/Annotation: This study examines the background and psychosocial factors that attract, or repel, minority students from computing disciplines. A survey was administered to students, who were non computer science or information systems majors, enrolled in computer applications courses at both a public and a private Historically

Black Universities located in Maryland. Analysis of the data found that the participating students came to college with little information about computer science (CS) and information systems (IS) as fields of study.

Author Last Name: Buzzetto-More
Author First Name: Nicole
Additional Author: Ukoha
:
Additional Author: Rustagi
:
Additional Author: Narendra
Publication Date: 2010
Publication Title: Journal of Information Technology Education
Volume: 9
Source: JITE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Unlocking the Clubhouse: Women in Computing

Resource Title: Unlocking the Clubhouse: Women in Computing
Description/Annotation: Social scientist Jane Margolis and Computer Scientist Allan Fisher study the gender gap in computing at Carnegie Mellon. Wonder why the number of women in computing dropped from an all-time high in 1984? Margolis and Fisher have some answers.
Author Last Name: Margolis
Author First Name: Jane
Additional Author: Fisher
:
A.
Publisher: MIT Press
Publisher Location: Cambridge

Publication Date: 2002
Source: Amazon
Source Type: Available for purchase

Resource Type Categories: Book Topical Categories: Educational Factors » Academic & Social Climate Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Unlocking the Clubhouse: Women in Computing

Resource Title: Unlocking the Clubhouse: Women in Computing
Description/Annotation: Provides insight into gender gap in the computing disciplines. Examines reasons for such a gap via an extensive interview process at Carnegie-Mellon university. Reforms that have produced dramatic results at this university are discussed.
Author Last Name: Margolis
Author First Name: Jane
Additional Author: Fisher
:
Publisher: The MIT Press
Publisher Location: Cambridge, MA
Publication Date: 2003
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Educational Factors Educational Factors » Retention Career Factors » Retention

Unwritten Rules: What You Don't Know Can Hurt Your Career

Resource Title: Unwritten Rules: What You Don't Know Can Hurt Your Career

Description/Annotation: An excellent report about the unwritten rules in companies, how important they are, and how to learn them. One of the biggest barriers to advancement of women is not knowing the unwritten rules, largely because they are learned through informal networks and women don't have the same access to informal networks as men. Includes examples of how unwritten rules are communicated through leaders and managers, how employees, especially women, can discover the norms and rules, and what companies can do to help women access the proper networks through methods such as mentoring, networking, and better communication. For industry and the workforce.

Author Last Name: Sabattini

Author First Name: Laura

Publisher: Catalyst

Publisher Location: New York, NY

Publication Date: 2008, Jun

Page Numbers: 1-28

Source: Catalyst

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

upRising: Innovative Ideas for Gender Equality

Resource Title: upRising: Innovative Ideas for Gender Equality

Description/Annotation: upRising is the annual research magazine of the Clayman Institute for Gender Research at Stanford University. upRising compiles the best research articles from the Clayman Institute's "Gender News", a twice-monthly newsletter on gender research, and addresses broader gender equality issues. Published in 2011, the inaugural issue focuses on the reason for women's underrepresentation in IT-related fields, as well as the obstacles preventing women from entering leadership roles. The magazine is available to download in PDF format.

Author Last Name: The Michelle R. Clayman Institute for Gender Research

Publisher: The Michelle R. Clayman Institute for Gender Research

Publisher Location: Stanford, CA
Publication Date: 2011
Page Numbers: 1-15
Publication Title: upRising: Innovative Ideas for Gender Equality
Volume: 1
Source: Clayman Institute
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) »
[Leadership & Management Career Factors](#) » [Retention](#)

USA Science & Engineering Festival

Resource Title: USA Science & Engineering Festival

Description/Annotation: This is the official website of the USA Science & Engineering Festival. The festival features over 2000 fun, interactive exhibits, more than 100 stage shows and 33 author presentations. The 2nd annual festival takes place on select days between April 15th through April 29th, with a finale Expo on April 28-29, 2012. The festival's mission is to re-invigorate the interest of the nation's youth in science, technology, engineering and math (STEM) by producing and presenting the most compelling, exciting, educational and entertaining science festival in the United States.

Web site Link: [Link to Resource](#)

More: A finale Expo will be held at the Walter E. Washington Convention Center in Washington, DC, on April 28-29, 2012. The Expo includes new events such as the Book Fair, as well as a Career Pavilion for high school students. The Expo and Book Fair are open to all ages free of charge.

Resources: The website contains detailed information about the festival, including:

- Exhibits
- Stage Shows
- Satellite Events
- Press Releases

- Pre-Expo Event Calendar
- Sponsors
- Career Pavilion
- Browse the Book Fair

Site Access Details: This site is publicly accessible free of charge.

Partners and Funding: The USA Science & Engineering Festival is a national grassroots effort led by Lockheed Martin. Other 2012 sponsors include professional science & engineering societies; S&E outreach organizations; universities/colleges/research institutes; government agencies and federal laboratories; industry; K-12 schools; and STEM outreach professionals.

Contact Name: Larry Bock

Contact E-mail: biobock@mac.com

Last Update Date: July 24, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Using an Extension Services Model To Increase Gender Equity in Engineering

Resource Title: Using an Extension Services Model To Increase Gender Equity in Engineering

Description/Annotation: This paper discusses the Engineering Equity Extension Services' (EEES) research-based approach to encouraging more gender equity in engineering, specifically in the mechanical and electrical fields, with the ultimate goal of increasing the number of women attaining baccalaureate degrees in these fields. This paper describes lessons learned over the course of the project, the resources that were developed, and the application of these lessons and resources to other efforts to encourage diverse students to study engineering.

Author Last Name: Cady

Author First Name: Elizabeth T.

Additional Author: Fortenberry

: Norman L.

Additional Author: Didion

: Catherine

Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Using Data/Getting Results: A Practical Guide for School Improvement in Mathematics and Science

Resource Title: Using Data/Getting Results: A Practical Guide for School Improvement in Mathematics and Science

Description/Annotation: This book provides guidance for schools to investigate their strengths, question their practice, and improve instruction in mathematics and science education.

Author Last Name: Love

Author First Name: Nancy

Publisher: Christopher-Gordon

Publisher Location: Norwood, MA

Publication Date: 2001, Jun

Publication Title: Using Data/Getting Results: A Practical Guide for School Improvement in Mathematics and Science

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Guide/Handbook](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Using Educational “Toys” to Recruit Female Students into an Electrical Engineering Technology Program

Resource Title: Using Educational “Toys” to Recruit Female Students into an Electrical Engineering Technology Program

Description/Annotation: This paper presents a workshop through the Electrical and Computer Engineering Technology Department at Purdue University to introduce students from area high schools to the field and associated career. The department employed the use of children’s educational toys and learning devices. An educational toy is created by the students when attending the Electrical Engineering Technology workshop.

Author Last Name: Richardson

Author First Name: Jeffrey

Additional Author: Toner

: Emily

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Using Gender Schema Theory to Examine Gender Equity in Computing: A Preliminary Study

Resource Title: Using Gender Schema Theory to Examine Gender Equity in Computing: A Preliminary Study

Description/Annotation: This article describes a pilot study that considered whether gender schema theory can serve as a framework for investigating girls’ Web site design and content preferences. Eleven 14- and 15-year-old girls participated in the study. The methodology included the administration of the Children’s Sex-Role Inventory (CSRI), Web-surfing sessions, interviews, and data analysis using iterative pattern coding. On the basis of their CSRI scores, the participants were divided into feminine-high (FH) and masculine-high (MH) groups. Data analysis uncovered significant differences in the criteria the groups used to evaluate Web sites. Models of the two

groups' evaluation criteria are presented, and the implications of the findings are discussed.

Author Last Name: Agosto
Author First Name: Denise E.
Publication Date: 2004
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 10
Issue: 1
Source: Begell House
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Using ICT to improve the gender balance in engineering education

Resource Title: Using ICT to improve the gender balance in engineering education

Description/Annotation: This paper describes a seminar that took place at Oulu Polytechnic in Finland on the topic of distance learning (known as ICT in Europe) and its effects on the representation of women in engineering in many countries. ICT-based teaching "permits comprehensive use of resource-based learning, provides flexibility in learning and facilitates wide support for individual communication and networking." The authors consider ICT advantageous for women in technical fields.

Author Last Name: Alha
Author First Name: Katarlina
Additional Author: Gibson
:
Ivan S.
Publication Date: 2003, Jun
Page Numbers: 214-224
Publication Title: European Journal of Engineering Education

Volume: 28
Issue: 2
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Using Information Technology to Forge Connections in an Extension Service Project

Resource Title: Using Information Technology to Forge Connections in an Extension Service Project

Description/Annotation: A hybrid Extension project is introduced that uses a traditional Extension delivery model without the complete infrastructure of Cooperative Extension Services. The absence of this local organizational support and infrastructure necessitates new thinking regarding how Information Technology (IT) can support this project and hybrid Extension projects in general. The reciprocal relationship between offline and online tasks and how an Internet portal can serve as a centralized location for project continuity is offered as one solution. How IT facilitates the implementation of hybrid Extension projects such as this one can further promote the interdisciplinary adoption of the Extension model. Funded by NSF GSE under award #0832913. Funded by NSF GSE under award #0832913.

Author Last Name: Schneider

Author First Name: Sandra B.

Additional Author: Brock

: Donna-Jean P.

Additional Author: Lane

: Crystal Duncan

Additional Author: Meszaros

: Peggy S.

Additional Author: Lockee

: Barbara B.
Publication Date: 2011, Dec
Publication Title: Journal of Extension
Volume: 49
Issue: 6
Source: Journal of Extension
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Journal Articles](#) [Topical Categories: Career Factors](#) [Publications by Funder » NSF-HRD-GSE Career Factors](#) [Professional Development Publications by Funder](#)

Using Mentors and Interdisciplinary Teams To "Genderize" Teacher Education

Resource Title: Using Mentors and Interdisciplinary Teams To "Genderize" Teacher Education

Description/Annotation: This 13-page article describes a teacher education project to increase gender equity in the classroom at seven higher education institutions. The project, known as the Teacher Education Mentor Project, used on-site teams and external mentors to facilitate this pedagogical gender equity inclusion. A study of the project outcomes reported that the results were mixed, with institutional and self-report change demonstrated.

Author Last Name: Sanders
Author First Name: Jo
Additional Author: Campbell
: Patricia
Publication Date: 2001
Page Numbers: 301-313
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 7
Issue: 4
Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Mentoring](#)

Using Outreach Programs to Increase Interest in Computing Majors

Resource Title: Using Outreach Programs to Increase Interest in Computing Majors

Description/Annotation: This presentation from the 2012 WEPAN National Conference describes outreach programs employed by a Midwestern university to increase female and minority interest in baccalaureate programs. The conference paper focuses on the sessions that were designed to expose opportunities in computing to the student participants. Based upon student feedback from these computing sessions, results indicated that these programs have been successful in raising student awareness of career opportunities in computing and in increasing interest in further study of computing. The full paper is available in PDF format.

Author Last Name: Harriger

Author First Name: Alka

Additional Author: Cao

: WeiWei

Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)

Publication Date: 2012

Page Numbers: 1-12

Source: WEPAN

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Using POWRE to ADVANCE: Institutional Barriers Identified by Women Scientists and Engineers

Resource Title:	Using POWRE to ADVANCE: Institutional Barriers Identified by Women Scientists and Engineers
Description/Annotation:	This 24-page book chapter briefly discusses some of the events and programs that are intended to address barriers to women's full participation in academic science and engineering (ADVANCE, FAW, VPW, CAA POWRE). Includes a discussion of the status of women in science and engineering, and the results of a study of barriers identified by NSF Professional Opportunities for Women in Research and Education (POWRE) award recipients. Concludes with suggested policy considerations for the ADVANCE program as a result of the study.
Author Last Name:	Rosser
Author First Name:	Sue V.
Publisher:	Indiana University Press
Publisher Location:	Bloomington, IN
Publication Date:	2006
Page Numbers:	69-92
Publication Title:	Removing Barriers: Women in academic science, technology, engineering, and mathematics
Source:	Google Book Search
Source Type:	Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Using Robots to Build Engineers

Resource Title:	Using Robots to Build Engineers
Description/Annotation:	Using robots helps grab the attention of K-12 students and allows them to see that engineering, math, and science don't have to be boring. Describes impact robotics competitions have in sparking interest in diverse students with little or no pre-competition exposure or interest in engineering or technology.

Author Last Name: Stein
Author First Name: Cathryne
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Page Numbers: 8
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Using self-categorization theory to understand relational demography-based variations in people's responsiveness to organizational culture

Resource Title: Using self-categorization theory to understand relational demography-based variations in people's responsiveness to organizational culture

Description/Annotation: As organizations strive to improve productivity from collaboration on teams, research is being done on teams and how they operate. This study looks at how demographic differences affect the way people respond to cues to cooperate with each other. The authors answer questions about whether co-workers work more collaboratively when the organization emphasizes using a collaborative approach as a cultural value. For industry and the workforce.

Author Last Name: Chatman
Author First Name: Jennifer A.
Additional Author: Spataro
: Sandra E.
Publisher: Academy of Management
Publisher Location: Ada, OH
Publication Date: 2005

Page Numbers: 321-331
Publication Title: Academy of Management Journal
Volume: 48
Issue: 2
Source: University of California
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Using Survival Analysis to Better Understand Factors that Determine Student Attrition

Resource Title: Using Survival Analysis to Better Understand Factors that Determine Student Attrition

Description/Annotation: This Powerpoint presentation outlines the use of survival analysis to have a better understanding of which students are more likely to enroll and remain enrolled in undergraduate courses. Funded by NSF GSE under award #0734062.

Author Last Name: Long

Author First Name: Russell A.

Additional Author: Ohland
: Matthew W.

Publication Date: 2010

Source: Purdue University

Source Type: Powerpoint presentation

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Using WebLabs as a Tool to Support a Culturally Diverse Student Cohort

Resource Title: Using WebLabs as a Tool to Support a Culturally Diverse Student Cohort

Description/Annotation: This 10-page article describes a program to use computing technology to improve engineering educational outcomes in groups of culturally diverse groups of students. The program sets up short interactive experiments called WebLabs that are accessible to students remotely from anywhere and at any time. The authors give brief overviews of engineering in the 21st century in the UK, the National Engineering Programme in the UK, the WebLabs and remotely-operated lab projects, and the use of these labs to mediate issues and challenges brought about by group lab work in culturally diverse classes.

Author Last Name: Read

Author First Name: Elizabeth

Additional Author: Hanson

:

Additional Author: Levesley

:

Publication Date: 2008

Page Numbers: 52-61

Publication Title: Engineering Education

Volume: 3

Issue: 1

Source: The Higher Education Academy

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Utilizing an Early Arrival Program as a Transition Vehicle for First-Year Women in Engineering

Resource Title: Utilizing an Early Arrival Program as a Transition Vehicle for First-Year Women in Engineering

Description/Annotation: This presentation will discuss the establishment of Ohio State's Women in Engineering Learning Community Early Arrival Program (WIE LEAP) and how it has helped to cultivate an environment to combat social isolation. In addition, WIE LEAP program goals, objectives, programmatic activities, and evaluation plan will be presented.

Author Last Name: Artis

Author First Name: Sharnnia

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Utilizing an NSF ADVANCE Grant as a Platform to Advance all Women Faculty and Graduate Students in STEM

Resource Title: Utilizing an NSF ADVANCE Grant as a Platform to Advance all Women Faculty and Graduate Students in STEM

Description/Annotation: Louisiana Tech's NSF ADVANCE grant strengthens climate; increases retention; and enhances promotion and leadership opportunities for women faculty. Utilizing the Office for Women in Science and Engineering to promote and institutionalize these efforts, the program leverages activities and resources, partnering with campus diversity efforts, to reach and advance women faculty and graduate students.

Author Last Name: Carpenter

Author First Name: Jenna Price

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

UVA Study Finds Gender Bias Remains on Sexes, Science

Resource Title: UVA Study Finds Gender Bias Remains on Sexes, Science

Description/Annotation: The article discusses a UVA project that found that stereotype may contribute to continuing underachievement and under-participation among girls and women in science.

Author Last Name: Dixit

Author First Name: Rachana

Publisher: WSLS10

Publisher Location: Roanoke, VA

Publication Date: 2009, Jun 23

Source: Media General News Service

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Stereotype Threat](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Valuing Diversity: Development of a Student Support Forum for Females

Resource Title: Valuing Diversity: Development of a Student Support Forum for Females

Description/Annotation: This paper describes the work undertaken by the project team of staff and students at Napier University to establish a student support forum for females. Following initial research, two key strands were identified to support the development of a community for female students: an online presence through which students could communicate and access information; and face to

face meetings where students could come together, meet females from industry, develop networking skills and discuss topics of common interest. Advice for others wishing to develop a similar resource are included, along with recommendations for future enhancements.

Author Last Name: Cairncross
Author First Name: Sandra
Additional Author: Gordon
:
Karen
Additional Author: Ratcliffe
:
Debbie
Additional Author: Tizard
:
Jenny
Additional Author: Turnbull
:
Caroline
Publication Date: 2008
Publication Title: Frontiers in Education Conference (FIE)
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Career Factors](#) » [Mentoring](#)

Variances in Coping Efficacy among Women STEM Students: Is Gender or Discipline More Influential?

Resource Title: Variances in Coping Efficacy among Women STEM Students: Is Gender or Discipline More Influential?

Description/Annotation: This study uses Social Cognitive Career Theory (SCCT) to examine the coping efficacy of high achieving women STEM students as it relates to their post baccalaureate career decisions. Differences between male and female students were examined to answer the following question: Is gender or academic discipline most influential in students' perception of their ability to cope

with the challenges associated with pursuing a post baccalaureate degree. Findings revealed that when compared to men, women are more likely to pursue professional or graduate school upon graduation; however, there were no statistically significant differences in coping efficacy. Overall, study findings provide insights about the role that academic climate plays on the post baccalaureate decision making process.

Author Last Name: Dover
Author First Name: Venetia
Additional Author: Williams
:
Additional Author: Fleming
:
Additional Author: Quinones
:
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Professional Development](#)

Video Games: Engineering Innovation Processes

Resource Title: Video Games: Engineering Innovation Processes
Description/Annotation: This case study from Stanford's "Gendered Innovations" analyzes diversity in video and online games, and the gaming industry itself. According to the case study, the stereotype of video gaming as masculine persists, even though women have become active gamers. By analyzing sex and gender throughout engineering innovation processes, researchers have looked beyond stereotypes to understand the complex patterns of young women and young men's video gaming.
Author Last Name: Schiebinger

Author First Name: L.
Additional Author: Klinge
:
Additional Author: Sanchez de Madariaga
:
Additional Author: Schraudner
:
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2011
Source: Stanford University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Stereotype Threat](#)

Vilas Life Cycle Professorship Program at the UW-Madison

Resource Title: Vilas Life Cycle Professorship Program at the UW-Madison
Description/Annotation: The Vilas Life Cycle Professorships provide funds to faculty and permanent PIs at the University of Wisconsin-Madison who are at critical junctures in their professional careers and whose research productivity has been directly affected by personal life events (e.g., illness of a dependent, parent, spouse/partner, or oneself; complications from childbirth; combination of major life events). This program addresses work/life balance in academia by successfully providing a "safety net" for faculty in times of crisis.
Author Last Name: WISELI
Publisher: University of Wisconsin-Madison
Publisher Location: Madison, WI
Source: WISELI
Source Type: Website with program resources

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Retention](#)

Visual Spatial Skills

Resource Title:	Visual Spatial Skills
Description/Annotation:	Visual spatial skills are essential for success in engineering, although the extent to which scores on visual spatial tests predict success in engineering is inconsistent in the research. However, education, experience and testing environments have been shown to improve and, in some cases, to eliminate the gender gap in visual spatial skills, as well as to improve retention of engineering students. While intervention strategies aiming to improve visual spatial skills have been shown to benefit both women and men, such strategies are typically not emphasized by women in engineering programs because of the small return on investment exclusively for women.
Author Last Name:	AWE
Publisher:	SWE-AWE
Publication Date:	2005
Volume:	Applying Research to Practice (ARP) Series
Source:	ARP
Source Type:	Abstract, Research Overview

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Vital Info for Women and Under-Represented Graduate Students

Resource Title:	Vital Info for Women and Under-Represented Graduate Students
Description/Annotation:	This 20-page, inexpensive booklet (with photos) is used by graduate deans, academic departments, mentors, McNair and other programs for advanced undergraduates considering graduate

studies. Details are given for: Securing Mentors; Forming Support & Study Groups; Building Networks; Learning to be Your Own Advocate and Manager; Maintaining Personal Integrity and Cultural Pride. A new section deals with overcoming stereotype threat and self-screening.

Author Last Name: Moody
Author First Name: JoAnn
Publisher: JoAnn Moody
Publisher Location: San Diego, CA
Publication Date: 2005 (revisions)
Source: Diversity on Campus
Source Type: Summary, Table of Contents, Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Voice Matters: Buffering the Impact of a Negative Climate for Women in Science

Resource Title: Voice Matters: Buffering the Impact of a Negative Climate for Women in Science

Description/Annotation: The current study examined whether women scientists' perceptions of voice moderate the impact of poor workplace climates on job satisfaction and whether effective leadership and mentoring promote women's voice. Survey data were collected from 135 faculty women in the natural sciences. The results from multiple regression analyses indicated that negative (e.g., sexist, hostile) departmental climates were related to lower job satisfaction. However, voice interacted with climate, such that women who perceived that they had more voice in departmental matters showed higher levels of job satisfaction than those who perceived having less voice.

Author Last Name: Settles
Author First Name: Isis H.
Additional Author: Cortina

: Lilia M.
Additional Author: Stewart
: Abigail J.
Additional Author: Malley
: Janet
Publication Date: 2007, Sep
Page Numbers: 270-281
Publication Title: Psychology of Women Quarterly
Volume: 31
Issue: 3
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Voices of Young Women in Engineering

Resource Title: Voices of Young Women in Engineering

Description/Annotation: Based on ethnographic studies at a specialized science high school in New York, this paper will discuss the experiences of five 17-year-old female pre-engineering students as they struggled to gain their own voices in an innovative, hands-on mechanical engineering program. Despite curricular innovations, observations and interviews with the girls have revealed that there are a number of cultural and psychological pressures that they contend with on a regular basis in the classroom — pressures that have convinced many to opt out of pursuing engineering further. Based on these findings, alternative methods of intervention for educating young women in science and engineering will be discussed. Useful in depth ethnographic type study where considerable detail is needed.

Author Last Name: Bennett
Author First Name: Dorothy
Publisher: Center for Children and Technology

Publication Date: 1996
Issue: 4
Source: EDC
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Warming the Climate for Women in Academic Science

Resource Title: Warming the Climate for Women in Academic Science
Description/Annotation: This report details a chilly climate for women and underrepresented minorities in academic science in areas including numbers of women in science education and careers, precollege patterns for women and girls in math and science and studies of how women fare in academics as undergraduates, graduate students and faculty. A resource section is included.
Author Last Name: Ginorio
Author First Name: Angela B.
Publisher: Association of American Colleges and Universities (AAC&U)
Publisher Location: Washington, D.C.
Publication Date: 1995
Source: AAC&U
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Water Infrastructure: Participatory Research and Design

Resource Title: Water Infrastructure: Participatory Research and Design

Description/Annotation: This case study from Stanford's "Gendered Innovations" analyzes how tapping into local women's knowledge has improved the efficiency of water projects. According to the case study, many women have detailed knowledge of soils and their water yields and this knowledge is vital to civil engineering and development projects. The case study also examines how easy access to improved water supplies can improve school attendance for both girls and boys.

Author Last Name: Schiebinger
Author First Name: I.
Additional Author: Klinge
:
Additional Author: Sanchez de Madariaga
:
Additional Author: Schraudner
:
Publisher: Stanford University
Publisher Location: Stanford, CA
Publication Date: 2011
Source: Stanford University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Wavelet Transforms on the Letter N

Resource Title: Wavelet Transforms on the Letter N

Description/Annotation: This paper studies the two-dimensional wavelet transform applied to two-dimensional images. The classical technique oftentimes implements the Fourier transform. This paper offers a brief discussion regarding the comparison of the two transforms on a single alphabet, N. It provides a comparison of the global properties present in the Fourier transform technique verses a more localized analysis when the wavelet transform is applied to

the same image. The wavelet selected in this study is the derivative of the Gaussian since in some sense offers a nice comparison to the Fourier method.

Author Last Name: Schmeelk
Author First Name: John
Publication Date: 2003
Publication Title: 2003 American Society for Engineering Education Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Ways Women Can Hold Their Own in a Male World

Resource Title: Ways Women Can Hold Their Own in a Male World
Description/Annotation: This brief newspaper article presents tips for women working in male dominated fields such as engineering. Advice on doing your homework on the company culture and maximizing your chances for success, including tips like making sure the company values women, finding a mentor, and not assuming stereotypical roles. For professional women.
Author Last Name: Mattioli
Author First Name: Dana
Publisher: Wall Street Journal
Publisher Location: New York, NY
Publication Date: 2008, Nov 25
Page Numbers: D4
Publication Title: Wall Street Journal (Eastern Edition)
Source: WSJ
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

WE @ UT- A Residential Recruitment Program for Women in Engineering

Resource Title: WE @ UT- A Residential Recruitment Program for Women in Engineering

Description/Annotation: This paper discusses The Women in Engineering at The University of Texas (WE@UT) program, a two-day in-depth residential program designed to increase participant knowledge and understanding of engineering and technology through hands-on, technology-based team projects. The overall goal is to increase the enrollment of women in engineering programs at The University of Texas at Austin (UT). Other objectives of the program are discussed.

Author Last Name: Berry

Author First Name: Tricia S.

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

WE-IMPACT- Women in Engineering - Improving Program Assessment Tools for Outreach and Retention Programs

Resource Title: WE-IMPACT- Women in Engineering - Improving Program Assessment Tools for Outreach and Retention Programs

Description/Annotation: This paper focuses on two outreach programs for middle school girls run by WE@RIT and WIT: Park & Ride, a two day program for girls in grades 6-8 and Girls Technology Day for girls from

4th-7th grades. This paper outlines the analysis and enhancement of existing assessment tools used by two outreach programs. The improvement strategy includes integrating a social science based perspective on creating survey questions from intended behaviors and associated outcomes as well as through using age-appropriate language.

Author Last Name: Dell
Author First Name: Elizabeth
Additional Author: Bailey
:
Additional Author: Margaret B.
Additional Author: O'Hurley
:
Additional Author: Shauna
Additional Author: Lillis
:
Additional Author: Robert P.
Additional Author: Kohl
:
Additional Author: Betsy
Publication Date: 2011
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Weaving women into the science curriculum

Resource Title: Weaving women into the science curriculum
Description/Annotation: Learning about great women in the sciences has the potential to impact mid-level students in a number of ways. These women and their work may serve as important role models, providing encouragement to younger female students. This article outlines several strategies that effectively weave women into the science curriculum.
Author Last Name: Campbell

Author First Name: Ashley
Publication Date: 2007, Oct
Page Numbers: 54
Publication Title: Science Scope
Volume: 31
Issue: 2
Source: EBSCO
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#)

WebCASPAR: Integrated Sciences and Engineering Resources Data System

Resource Title: WebCASPAR: Integrated Sciences and Engineering Resources Data System

Description/Annotation: The WebCASPAR database is an NSF tool that provides access to statistical data for science and engineering at U.S. academic institutions.

Web site Link: [Link to Resource](#)

More: The site provides stored tables such as:

- Degrees awarded by degree level and field
- Doctorates earned
- Research statistics by field, researcher, and federal agency The site allows the creation of user-generated tables from either:
 - National Science Foundation (NSF) or
 - National Center for Education Statistics (NCES) / Integrated Postsecondary Education Data System (IPEDS) sources.

Site Access Details: This site is publicly accessible.

Partners and Funding: This is a U.S. government site from the National Science Foundation (NSF).

Contact E-mail: webcaspar@qrc.com

Last Update Date: May 21, 2013

Resource Type Categories: Database/Tool » Database Topical Categories: Educational Factors Educational Factors » Formal Academic Preparation

Webinar: By the Numbers: Focusing Your Recruitment Relationships Using ASEE's Data Mining Tool

Resource Title: Webinar: By the Numbers: Focusing Your Recruitment Relationships Using ASEE's Data Mining Tool

Description/Annotation: This WEPAN webinar presents a tour of the American Society for Engineering Education (ASEE) College Profile data mining tool and showcases ways to display data effectively for decision makers. According to the webinar, the data mining tool includes institutional and department specific data, disaggregated data by gender and ethnicity, and longitudinal data. The webinar discusses leveraging WEPAN's campus-based network to build persistent relationships that can attract women engineering students to internships and hiring. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Gibbons

Author First Name: Michael

Additional Author: Holt

: Barbara

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2011, Dec

Source: WEPAN

Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Educational Factors Educational Factors » Retention Webinars: ENGAGE in Engineering

Webinar: Graduating to a Pay Gap

Resource Title: Webinar: Graduating to a Pay Gap

Description/Annotation: Christianne Corbett and Lisa Maatz discuss AAUW's study exploring the earnings of men and women one year after graduation as well as legislation and executive actions to close the pay gap.

Author Last Name: Christianne

Author First Name: Corbett

Additional Author: Lisa

:

Maatz

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2013

Source: WEPAN

Source Type: video link

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Salary Webinars: ENGAGE in Engineering](#)

Webinar: Identity: Why is it important to think about how women and girls see themselves in science and engineering?

Resource Title: Webinar: Identity: Why is it important to think about how women and girls see themselves in science and engineering?

Description/Annotation: This WEPAN webinar discusses identity as a scientist or engineer and what influences or contributes to that identity. According to the webinar, identity is emerging as a way of understanding research on interest, motivation, self-efficacy, and community support to provide a framework that supports persistence, especially for girls. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Shanahan

Author First Name: Marie-Claire

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2011, Sep
Source: WEPAN
Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception Individual Beliefs and Behaviors » STEM Career Interest/Awareness Webinars: ENGAGE in Engineering

Webinar: Implicit Bias in Science: The Power of Automatic, Unintended Mindsets

Resource Title: Webinar: Implicit Bias in Science: The Power of Automatic, Unintended Mindsets

Description/Annotation: This WEPAN webinar outlines how implicit mindsets operate on important life judgments and decisions, and are linked to critical STEM outcomes such as choice of major and performance on high stakes tests. The presentation includes information on measuring implicit bias in STEM; the Harvard Implicit Association Test (IAT); taking the "Gender-Science" IAT; and strategies for changing implicit biases and avoiding their effects. This resource is available as a Powerpoint presentation or webinar recording.

Author Last Name: Smyth
Author First Name: Fred
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2012, Feb
Source: WEPAN
Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Cultural Influences Educational Factors Cultural Influences » Implicit Bias Educational Factors » Stereotype Threat on Testing Webinars: ENGAGE in Engineering

Webinar: Mentoring Millennials: Evolving practices for guiding a new generation of women engineers to career success

Resource Title:	Webinar: Mentoring Millennials: Evolving practices for guiding a new generation of women engineers to career success
Description/Annotation:	This WEPAN webinar discusses how the nonprofit MentorNet helps women and under-represented minority students studying engineering and science at the university level achieve their career goals. According to the webinar, MentorNet's technology matches mentors to proteges one-on-one over the Web and then guides their relationships with timed prompts for up to eight months. This resource is available as a Powerpoint presentation and webinar recording.
Author Last Name:	Porush
Author First Name:	David
Publisher:	WEPAN
Publisher Location:	Denver, CO
Publication Date:	2011, Oct
Source:	WEPAN
Source Type:	Powerpoint Presentation and Webinar Recording

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors »](#)
[Mentoring Webinars: WEPAN Professional Development Series](#)

Webinar: NSF Solicitation 13-519, Building Community & Capacity for Data-Intensive Research in the Social, Behavioral and Economic Sciences and in Education and Human Resources

Resource Title:	Webinar: NSF Solicitation 13-519, Building Community & Capacity for Data-Intensive Research in the Social, Behavioral and Economic Sciences and in Education and Human Resources
Description/Annotation:	Jan, 2013 webinar by Edith Gummer, NSF EHR/DRL program director, reviewing NSF solicitation 13-519. Extensive question

and answer section in which Edith reviews key focus areas, and provides ample suggestions and resources to support those interested in applying for this NSF 2013 solicitation.

Author Last Name: Gummer
Author First Name: Edith
Publisher: WEPAN
Publication Date: 2013
Source: WEPAN
Source Type: Powerpoint Presentation and Webinar Recording

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors » Organizational Culture](#) [Career Factors » Professional Development](#) [Webinars: ENGAGE in Engineering](#)

Webinar: Some Here, More There: What Attracts Women to Engineering Majors?

Resource Title: Webinar: Some Here, More There: What Attracts Women to Engineering Majors?

Description/Annotation: This WEPAN webinar analyzes why some engineering majors have greater representation of women than others. According to the webinar, topical content alone does not determine the proportion of women or men in engineering majors. Using national data from the Engineering Workforce Commission, survey data from 21 schools in the Project to Assess Climate in Engineering (PACE) Study, and Carnegie Foundation classification information, the webinar presenter, Dr. Liz Litzler, presents findings about improved student experience and perceptions in engineering departments where women are better represented. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Litzler
Author First Name: Elizabeth
Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2012, Mar
Source: WEPAN

Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness Webinars: ENGAGE in Engineering

Webinar: Stemming the Tide: Why Women Leave Engineering

Resource Title: Webinar: Stemming the Tide: Why Women Leave Engineering

Description/Annotation: This WEPAN webinar discusses a study designed to understand factors related to women engineers' career decisions and the status of women engineers nationally. The webinar presents the rationale and key findings from the study, as well as best practices. Results indicated that the workplace climate was a strong factor in women's decisions to not enter engineering after college or to leave the profession of engineering. The resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Fouad

Author First Name: Nadya

Additional Author: Singh

: Romila

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2011, Nov

Source: WEPAN

Source Type: Presentation Powerpoint and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Career Factors Educational Factors Educational Factors » Retention Career Factors » Retention Webinars: ENGAGE in Engineering

Webinar: Stereotype Threat and the Nature and Nature of Intelligence

Resource Title: Webinar: Stereotype Threat and the Nature and Nature of Intelligence

Description/Annotation: This WEPAN webinar discusses how women still lag behind in math and science, despite women performing equal to or better than men in almost all academic areas. Dr. Joshua Aronson, Associate Professor of Applied Psychology at NYU, presents studies that show how stereotype threat affects female, black, and Latino students, and some simple and encouraging steps to take towards alleviating this stigma. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Aronson

Author First Name: Joshua

Publisher: WEPAN

Publisher Location: Denver, CO

Publication Date: 2012, May

Source: WEPAN

Source Type: Powerpoint Presentation and Webinar Recording

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences » Stereotype Threat Career Factors » Stereotype Threat Educational Factors » Stereotype Threat on Testing Webinars: ENGAGE in Engineering](#)

Webinar: Why Smart People Suffer from the Impostor Syndrome and How to Thrive in Spite of It

Resource Title: Webinar: Why Smart People Suffer from the Impostor Syndrome and How to Thrive in Spite of It

Description/Annotation: This WEPAN webinar discusses a phenomenon known as the impostor syndrome in which accomplishments are dismissed as luck or timing. The webinar presents the impostor syndrome and how it works; the reasons bright people feel like frauds; what makes women more prone to self-doubt; and strategies you can use to help yourself, your students, or your employees to unlearn this self-limiting phenomenon. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Young

Author First Name: Valerie

Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2012, Jan
Source: WEPAN
Source Type: Powerpoint Presentation and Webinar Recording

Resource Type Categories: Webinar/Video Topical Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perceptionWebinars: ENGAGE in Engineering

Webinar: You Can't Graduate Them If You Don't Admit Them: Using Modeling Techniques to Inform Admissions Policy

Resource Title: Webinar: You Can't Graduate Them If You Don't Admit Them: Using Modeling Techniques to Inform Admissions Policy

Description/Annotation: This WEPAN webinar discusses research-based efforts at Purdue to understand admissions trends for engineering students and to implement changes in their admissions policy that result in increased female enrollment in engineering. This resource is available as a Powerpoint presentation and webinar recording.

Author Last Name: Holloway

Author First Name: Beth

Additional Author: Imbrie
:
P.K.

Additional Author: Reed-Rhoads
:
Teri

Publisher: WEPAN
Publisher Location: Denver, CO
Publication Date: 2012, Sep
Source: WEPAN
Source Type: Powerpoint Presentation and Webinar Recording

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors » Admissions Bias Educational Factors Educational Factors » Retention Webinars: ENGAGE in Engineering](#)

Welcome to the "Risk Zone": Cooper Union's Collaboration With Outward Bound

Resource Title:	Welcome to the "Risk Zone": Cooper Union's Collaboration With Outward Bound
Description/Annotation:	Program merging Outward Bound experiential learning with Cooper Union engineering-focused challenges for male and female undergraduate STEM students and their faculty. Faculty and students learn the value of teamwork and interacting with each other outside conventional academic roles.
Author Last Name:	Lycsko
Author First Name:	Judith, E.
Additional Author:	Newmark
:	Andrea
Publisher:	WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date:	2000
Page Numbers:	6
Source:	WEPAN
Source Type:	Full text

Resource Type Categories: [Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Educational Factors » Faculty Student Interaction](#)

Welding Bird Feeders: A Comprehensive Community Service Mini-Project for 8th Grade Students

Resource Title:	Welding Bird Feeders: A Comprehensive Community Service Mini-Project for 8th Grade Students
Description/Annotation:	This 10-page paper from the 2012 WEPAN National Conference presents an overview of a Women in Engineering (WiE) community service summer project which involves guiding participants through the engineering design process to weld bird feeders and donate them to a local botanical garden to dedicate a

bird sanctuary. According to the conference paper, the project was utilized not only to inform students about careers in welding engineering, a non-traditional engineering field, but to excite them about non-traditional career opportunities with the program industry sponsor. A discussion of the welding engineering program, industry partnership, and community service mini-project is presented as it relates to engineering outreach and recruitment into non-traditional engineering career areas. The full paper is available in PDF format.

Author Last Name: Fletcher
Author First Name: Shawna
Additional Author: Conrad
:
Jennifer
Additional Author: Rygielski
:
Kimberly
Additional Author: White
:
Gretchen
Additional Author: Thomas
:
Elizabeth
Publisher: WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date: 2012
Page Numbers: 1-10
Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Informal
Academic Preparation](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Wellness Strategies for Women Engineers: An Interdisciplinary Course Designed To Help Women Engineers Succeed

Resource Title: Wellness Strategies for Women Engineers: An Interdisciplinary Course Designed To Help Women Engineers Succeed

Description/Annotation: This paper discusses an upper level course at the University of Pennsylvania that combines a required general education course requirement in health and physical activities with career development activities and an exposure to gender literature. This paper describes the pilot offering of this course, entitled Wellness Strategies for Engineering Women, and outlines the preliminary results of the assessment program.

Author Last Name: Bogue

Author First Name: Barbara

Additional Author: Litzinger

: Mary Ellen

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

WEPAN 2010 Conference Proceedings - Setting Sail for the Future

Resource Title: WEPAN 2010 Conference Proceedings - Setting Sail for the Future

Description/Annotation: All papers presented at the WEPAN/NAMEPA 2010 joint conference can be accessed via this link.

Web site Link: [Link to Resource](#)

More: Setting Sail for the Future: Leveraging Diversity for a Stronger Crew - This is the fourth joint NAMEPA and WEPAN National Conference. The purpose of the conference is to share and investigate ideas that diversify the field of engineering through increasing the participation of women and minorities.

Site Access Details: This site is publicly accessible.

Contact Name: C. Diane Matt
Contact E-mail: dmatt@wepan.org
Last Update Date: July 9, 2013

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

WEPAN 2011 Conference Proceedings - Advancing Women: Transforming Engineering Education

Resource Title: WEPAN 2011 Conference Proceedings - Advancing Women: Transforming Engineering Education

Description/Annotation: All papers presented at the WEPAN 2011 conference can be accessed via this link.

Web site Link: [Link to Resource](#)

More: Advancing Women: Transforming Engineering Education - The 2011 WEPAN conference focused on transforming engineering education through topics including advancing women, leading transformation, teaching innovation and cultivating talent.

Site Access Details: This site is publicly accessible.

Contact Name: C. Diane Matt
Contact E-mail: dmatt@wepan.org
Last Update Date: Sep 16, 2012

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

WEPAN 2012 Conference Proceedings - Getting to the Heart of it All

Resource Title: WEPAN 2012 Conference Proceedings - Getting to the Heart of it All

Description/Annotation: All papers presented at the WEPAN 2012 conference can be accessed via this link.

Web site Link: [Link to Resource](#)

More: Getting to the Heart of it All - A robust body of research on gender in science, technology, engineering and mathematics (STEM) underpins and ties together many initiatives to advance the prominence of women engineering faculty, students and workforce. Getting to the Heart of it All will explore how research and related programs span the boundaries of these four audiences. How do successes for one audience translate to and return benefits for other groups? How could the synergies be expanded going forward?

Site Access Details: This site is publicly accessible.

Contact Name: C. Diane Matt

Contact E-mail: dmatt@wepan.org

Last Update Date: Sep 16, 2012

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

WEPAN Conference Proceedings Archive (1997+)

Resource Title: WEPAN Conference Proceedings Archive (1997+)

Description/Annotation: WEPAN's National Conference is a lively annual forum for ideas and an opportunity for women engineers in academic, teaching, and corporate settings to share research and best practices that focuses on advancing knowledge, programs and expertise that improve the climate for and success of women in engineering. WEPAN's mission is to be a catalyst, advocate and leading resource for institutional and national change that enables the success of all women in engineering. Sample content at a conference can include recruitment and retention issues, mentoring, science education in the schools, faculty promotion and tenure, diversity initiatives, policy considerations and similar topics.

Author Last Name: WEPAN

Publication Date: 1997+

Source: WEPAN

Source Type: Website

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) »
[Retention](#)

WEPAN Digital Knowledge Center Presentation

Resource Title: WEPAN Digital Knowledge Center Presentation

Description/Annotation: Powerpoint presentation from May, 2009 webinar on the WEPAN Knowledge Center offering access to cataloged and fully cited information resource and an online Professional Community for networking, collaborating, identifying subject matter experts, and sharing information.

Author Last Name: WEPAN

Publisher: WEPAN

Publication Date: 2009, May

Source: WEPAN

Source Type: Powerpoint presentation

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors](#) »
[Professional Development](#)

WEPAN's Digital Women in Engineering Knowledge Center

Resource Title: WEPAN's Digital Women in Engineering Knowledge Center

Description/Annotation: This paper discusses WEPAN's digital Knowledge Center focused on women in engineering. The WEPAN Knowledge Center (WKC) is designed to serve as a central repository by collecting and offering ready access to research; best practices and lessons learned; data and information.

Author Last Name: Carpenter

Author First Name: Jenna

Additional Author: Matt

: C. Diane

Publication Date: 2008

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Media & Entertainment](#)

What About the Boys?

Resource Title: What About the Boys?

Description/Annotation: This one-page commentary discusses the trend of declining academic achievement among boys, suggesting that the attention to making education more equitable for girls has been detrimental for boys' learning and achievement.

Author Last Name: Mikel Brown

Author First Name: Lyn

Additional Author: Chesney-Lind
:
Meda

Additional Author: Stein
:
Nan

Publisher: Editorial Projects in Education

Publisher Location: Bethesda, MD

Publication Date: 2006

Page Numbers: 35

Publication Title: Education Week

Volume: 25

Issue: 39

Source: Editorial Projects in Education

Source Type: Intro, Available for Purchase

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

What are the Important Components of Targeted Recruiting? Girls Exploring Science, Engineering, and Technology Event - GESET (Case Study 1)

Resource Title:	What are the Important Components of Targeted Recruiting? Girls Exploring Science, Engineering, and Technology Event - GESET (Case Study 1)
Description/Annotation:	Professional recruiters know that being strategic about recruiting requires consideration of several elements, including making decisions that are aligned with your staffing or enrollment goals. A clearly defined recruitment strategy sets up a framework for focusing your efforts and planning beyond individual events or campaigns. The strategy defines what activities to concentrate on and what activities are unimportant. The Rocky Mountain Section of the Society of Women Engineers, Lockheed Martin, Junior Achievement of the Rocky Mountains, Inc., and the Women's Foundation of Colorado collaborate each year to produce the Girls Exploring Science, Engineering, and Technology (GESET) event for hundreds of girls. GESET is an example of targeted recruitment.
Author Last Name:	Barker
Author First Name:	Lecia
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2007-2008
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Educational Factors](#) » [Curriculum Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Informal Academic Preparation Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

What Can an Engineering Outreach Program Offer Young Women That They Can't Find in an Engineering Curriculum at School? Fun!

Resource Title: What Can an Engineering Outreach Program Offer Young Women That They Can't Find in an Engineering Curriculum at School? Fun!

Description/Annotation: This paper discusses the Future Engineers' Summer Camp (FESC) at The Ohio State University which has given more than 200 young women the opportunity to "have fun while learning about engineering" and engineering-related careers. This paper argues that the camp's emphasis on enjoyment, on what the camp organizers have referred to as "having fun," is what allows this particular outreach program—and others like it—to play a crucial role in increasing the number of women who are interested in engineering and who see this field as offering them viable and compelling career options.

Author Last Name: Friedman

Author First Name: Ruth

Additional Author: Weavers
:
Linda

Additional Author: La Rue
:
Glenda

Publication Date: 2009

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

What Can Coaches Do for You

Resource Title: What Can Coaches Do for You

Description/Annotation: Coaching has changed over the years, but its use as a business tool is growing. This article points out what roles coaching fill in business, contradictions in definitions, and ways to measure success from coaching. For industry leadership and the workforce.

Author Last Name: Coutu
Author First Name: Diane
Additional Author: Kauffman
:
Carolyn B.
Publisher: Harvard Business School Publishing
Publisher Location: Boston, MA
Publication Date: 2009, Jan
Page Numbers: 1-9
Publication Title: Harvard Business Review
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Mentoring](#)

What Can We Learn from Gender Research: Seven Lessons for Business Research Methods

Resource Title: What Can We Learn from Gender Research: Seven Lessons for Business Research Methods

Description/Annotation: This paper considers issues, insights and lessons about conducting research in business that are drawn from this author's experiences with gender research in the information technology (IT) field over the past decade. A research program on gender and information technology (IT) is used as the basis for consideration of methodological insights for business research. The problem-orientation that drives business research also drives gender and IT research. Seven lessons relevant to business research methods are: the effect of data type, the choice of epistemology, the role of theory, building on disparate literature, the influence of researcher standpoint, stakeholder perspective that is privileged, and resolving the rigor vs. relevance conundrum. This review of insights for business research that is drawn from experiences with conducting research on gender and IT makes a case for increased methodological pluralism. Funded by NSF GSE under award #0733747.

Author Last Name: Trauth
Author First Name: Eileen M.
Publication Date: 2011
Page Numbers: 1-9
Publication Title: Electronic Journal of Business Research Methods
Volume: 9
Issue: 1
Source: EJBRM
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Career Factors](#) » [Organizational Culture](#) [Publications by Funder](#)

What Careers Paths do Professional Women in Science, Tech & Engineering (STEM) Take?

Resource Title: What Careers Paths do Professional Women in Science, Tech & Engineering (STEM) Take?

Description/Annotation: Video channel of interviews designed for Women in Leadership, Women in STEM, Women Entrepreneurs, Emerging Women and Young Girls in Science, Technology Engineering and Math.

Web site Link: [Link to Resource](#)

Site Access Details: This site is publicly accessible.

Partners and Funding: This video channel is managed by www.purposefulwomen.com.

Contact Name: JJ DiGeronimo

Contact E-mail: contact@purposefulwoman.com

Last Update Date: 2015 Feb 16

Connected Advocates: [Projects & Programs](#) » [Engineering Inclusive Teaching \(EIT\)](#) [Resource Type Categories: Webinar/Video](#) [Topical Categories: Career Factors](#) » [Leadership & Management](#) [Cultural Influences](#) » [Media & Entertainment](#) [Career Factors](#) » [Professional Development](#)

What Differences Make a Difference? The Promise and Reality of Diverse Teams in Organizations

Resource Title:	What Differences Make a Difference? The Promise and Reality of Diverse Teams in Organizations
Description/Annotation:	Diversity in the workplace is supposed to be a good thing for business, but the authors of this article question whether the possibility and reality are really two different things. While not completely turning over preconceived notions of the benefits of diversity, the article does raise some very valid issues about how diversity affects teams in difficult and sometimes negative ways. Are the social divisions between diverse group members too negative a presence to enhance the creativity that can arise from diverse team members working together? The authors explore surface-level differences versus underlying differences and how they affect team performance. They also suggest ways companies can make positive changes. For industry and the workforce.
Author Last Name:	Mannix
Author First Name:	Elizabeth
Additional Author:	Neale
:	Margaret A.
Publisher:	Wiley-Blackwell
Publisher Location:	Malden, MA
Publication Date:	2005, Oct
Page Numbers:	31-55
Publication Title:	Psychological Science in the Public Interest
Volume:	6
Issue:	2
Source:	APS
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

What do we Know about Managing Scientists and Engineers: A Review of Recent Literature

Resource Title:	What do we Know about Managing Scientists and Engineers: A Review of Recent Literature
Description/Annotation:	A literature review on managing scientists and engineers done as an update to Badawy's 1988 identification of four major areas of managing scientists and engineers. The authors have also identified six new developments that affect management in this area. Included are recommended actions to help industry work with engineers and scientists. Useful for industry and the workforce.
Author Last Name:	Farris
Author First Name:	George F.
Additional Author:	Cordero
:	Rene
Publisher:	Rutgers University and New Jersey Institute of Technology
Publisher Location:	Newark, NJ
Publication Date:	2002
Page Numbers:	1-39
Source:	PSU
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

What Gender is Science?

Resource Title:	What Gender is Science?
Description/Annotation:	This article analyzes the gender composition of STEM fields. Looking at science, technology, engineering, and mathematics (STEM) fields across countries challenges the assumption that women in more economically and culturally modern societies enjoy greater equality. Rather, freedom to choose a career may paradoxically cause women in affluent Western democracies to

construct and replicate stereotypically gendered self-identities.
Funded by NSF GSE under award #1036679.

Author Last Name: Charles
Author First Name: Maria
Publication Date: 2011, May
Page Numbers: 22-28
Publication Title: Context
Volume: 10
Issue: 2
Source: Context
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) Topical Categories: [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Cultural Influences » Gendered Occupations & Study Choices](#) [Publications by Funder » NSF-HRD-GSE Publications by Funder](#)

What Has Driven Women Out of Computer Science

Resource Title: What Has Driven Women Out of Computer Science
Description/Annotation: Women are narrowing the gap in all the technical fields compared to men except for computer science. This article discusses why women are not interested in computer science. For industry and academics.
Author Last Name: Stross
Author First Name: Randall
Publisher: New York Times
Publisher Location: New York, NY
Publication Date: 2008, Nov 15
Publication Title: The New York Times
Source: New York Times
Source Type: Full Text

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical
Categories: Career Factors Individual Beliefs and BehaviorsCareer Factors » Retention Individual Beliefs
and Behaviors » STEM Career Interest/Awareness

What is an Engineer? Implications of Elementary School Student Conceptions for Engineering Education

Resource Title: What is an Engineer? Implications of Elementary School Student Conceptions for Engineering Education

Description/Annotation: This 25-page paper analyzes qualitative data from about 400 Grade 1 through 5 students from urban and suburban schools located in the Midwest, United States. Data were analyzed using content analysis and statistical testing. Results indicated that students conceptualized an engineer as a mechanic, laborer, and technician and students' conceptions were relatively consistent across urban and suburban school communities. The paper is available in PDF format. Funded by NSF GSE under award #0734091.

Author Last Name: Capobianco

Author First Name: Brenda M.

Additional Author: Diefes-Dux

: Heidi A.

Additional Author: Mena

: Irene

Additional Author: Weller

: Jessica

Publisher: ASEE

Publisher Location: Washington, DC

Publication Date: 2011, Apr

Page Numbers: 304-328

Publication Title: Journal of Engineering Education

Volume: 100

Issue: 2

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

What Makes Electronic Mentoring Effective? MentorNet - www.MentorNet.net (Case Study 1)

Resource Title:	What Makes Electronic Mentoring Effective? MentorNet - www.MentorNet.net (Case Study 1)
Description/Annotation:	MentorNet is an award-winning nonprofit e-mentoring network for diversity in engineering and science. By working through a consortium of organizations, MentorNet pairs undergraduate and graduate students, post-docs, and early career faculty in STEM fields with professionals in industry, government, and higher education. These mentoring pairs establish email-based, one-on-one mentoring relationships that last eight or more months. More than 14,000 pairs of protégés and mentors have been matched through MentorNet's One-on-One programs.
Author Last Name:	Barker
Author First Name:	Lecia
Additional Author:	Cphoon
:	J. McGrath
Publisher:	National Center for Women and Information Technology (NCWIT)
Publication Date:	2005, Nov 1
Page Numbers:	2
Source:	NCWIT
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

What Malaysian Science Teachers Need to Improve Their Science Instruction: A Comparison Across Gender, School Location and Area of Specialization

Resource Title:	What Malaysian Science Teachers Need to Improve Their Science Instruction: A Comparison Across Gender, School Location and Area of Specialization
Description/Annotation:	This research looks specifically at the perceived needs of secondary school science teachers in Malaysia so that subsequent effective in-service programmes can be planned and implemented. The prime aim of this cross-sectional survey study is to ascertain the perceived needs of 1,690 practicing secondary school science teachers, characterized by gender, school location, and area of specialization. Results demonstrate that the most prevalent needs of the Malaysian secondary school science teachers are the integration of multimedia and the use of English in science instruction.
Author Last Name:	Osman
Author First Name:	Kamisah
Additional Author:	Halim
:	Lilia
Additional Author:	Meerah
:	Subahan Mohd
Publication Date:	2006, Jul
Page Numbers:	58
Publication Title:	Eurasia Journal of Mathematics, Science & Technology Education
Volume:	2
Issue:	2
Source:	EBSCO
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

What Research Tell Us, Lecia Barker

Resource Title:	What Research Tell Us, Lecia Barker
Description/Annotation:	This 47-minute audio clip and Powerpoint Presentation features Lecia Barker, Senior Research Scientist for the National Center for Women & Information Technology (NCWIT), discuss research on best practices for outreach to young women and minority students. Lecia analyzes the research evidence underlying the choices you need to make when doing a roadshow presentation, specifically why you choose the messages and the activities that you choose.
Author Last Name:	Barker
Author First Name:	Lecia
Publisher:	Computer Science Teachers Association (CSTA)
Publisher Location:	New York, NY
Publication Date:	2008, May
Source:	CSTA
Source Type:	Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

What Women Want: Female-Friendly Faculty Recruitment

Resource Title:	What Women Want: Female-Friendly Faculty Recruitment
Description/Annotation:	This paper includes data on the representation of women faculty in science and engineering at Boise State University, including measurable progress in recent years that places the university above the national norm. Additionally, the authors provide focus group results on climate for female science and engineering faculty and describe what has led not only to successful searches but also to unsuccessful ones. In this way, changes in policies, procedures and perceptions during faculty recruitment are focused most effectively.
Author Last Name:	Schrader

Author First Name: Cheryl
Additional Author: Hampikian
:
Additional Author: Moll
:
Publication Date: 2006
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Hiring Practices](#) [Career Factors](#) » [Organizational Culture](#)

What Works for Women in Undergraduate Physics and What We Can Learn from Women's Colleges

Resource Title: What Works for Women in Undergraduate Physics and What We Can Learn from Women's Colleges

Description/Annotation: This study explores the recruitment and retention of women in undergraduate physics by conducting site visits to physics departments. In this second phase of the project, researchers visited six physics departments in women's colleges, and compared these departments to each other and to the nine departments in coeducational schools that were visited in phase 1 of the project. Researchers learned that women's colleges, much more than coed schools, try to recruit students into the physics major. Authors discuss these results for students and pedagogy and for faculty and institutions, and offer some advice on how to make a physics department more female friendly.

Author Last Name: Whitten
Author First Name: Barbara L.
Additional Author: Dorato
:
Additional Author: Shannon R.
Additional Author: Duncombe
:
Margaret L.

Additional Author: Allen
:
Patricia E.
Additional Author: Blaha
:
Cynthia A.
Publication Date: 2007
Page Numbers: 37-76
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 1
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) »
[Pedagogy & Instruction](#)

What Works to Recruit & Retain Women, Works for Men, Too

Resource Title: What Works to Recruit & Retain Women, Works for Men, Too

Description/Annotation: This is a 4-page, 8 x 10 color brochure summarizes key results of a research project funded by the Program for Gender Equity at the National Science Foundation from 2006-2010: Investigating the Gender Component (IGC): Cultures that Promote Undergraduate Women's Interest in Engineering. E. G. Creamer, PI; Peggy S. Meszaros and Carol J. Burger, CO-PIs, all of Virginia Tech. The brochure is available in paper form by contacting the PI or in digital form. The brochure is written for a wide audiences and puts forward the argument that by in large, what is works to promote and sustain women's interest in engineering also works in the same way for men.

Author Last Name: Creamer
Author First Name: Elizabeth
Additional Author: Meszaros
:
Peggy

Publisher: Virginia Tech
Publisher Location: Blacksburg, VA
Publication Date: 2010, Jun
Page Numbers: 1-4

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

What Works? Increasing the Participation of Women in Undergraduate Physics

Resource Title: What Works? Increasing the Participation of Women in Undergraduate Physics

Description/Annotation: To learn “what works” in attracting and retaining women in the undergraduate physics major, the authors conducted site visits to nine undergraduate physics departments and compared those with high participation by women to those that are typical of the national average. This article details the first results of the research, showing that a strong, inclusive, female-friendly department culture is like a fabric woven on a loom. No one factor is essential, but many small factors weave together to form a sturdy fabric. Institutions, faculty members, and students all have roles to play in creating this culture.

Author Last Name: Whitten
Author First Name: Barbara L.
Additional Author: Foster
:
Suzanne R.
Additional Author: Duncombe
:
Margaret L.
Additional Author: Allen
:
Patricia E.
Additional Author: Heron
:
Paula
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 9
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#)[Educational Factors](#) [Educational Factors](#) »
[Retention](#)

What You Don't Know and Your Boss Won't Tell You: Advice from Senior Female Executives on What You Need to Succeed

Resource Title: What You Don't Know and Your Boss Won't Tell You: Advice from Senior Female Executives on What You Need to Succeed

Description/Annotation: A book of advice from female executives to help empower other women to manage their own careers and lives. Includes finding mentors and opportunities, and many other helpful tips about the unspoken rules of the corporate world. For women in any field.

Author Last Name: Lenehan

Author First Name: Pamela F.

Publisher: Syren Book Co.

Publisher Location: Minneapolis, MN

Publication Date: 2006, Mar

Page Numbers: 1-194

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) [Topical](#) Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#)

What's good for the goose may not be as good for the gander: the benefits of self-monitoring for men and women in task groups and dyadic conflicts

Resource Title:	What's good for the goose may not be as good for the gander: the benefits of self-monitoring for men and women in task groups and dyadic conflicts
Description/Annotation:	This article reports a study to see if self-monitoring by women can positively affect certain situations where negative gender stereotypes exist. Women who were high self-monitors were compared with women who were low self-monitor and with men. Do men and women alter their behavior to achieve desired results based on their ability to self-monitor? Interesting results for women interested in minimizing gender bias and stereotyping.
Author Last Name:	Flynn
Author First Name:	Francis J.
Additional Author:	Ames
:	Daniel R.
Publisher:	American Psychological Association, Inc.
Publisher Location:	Washington, D.C.
Publication Date:	2006, Mar
Page Numbers:	272-281
Publication Title:	The Journal of Applied Psychology
Volume:	91
Issue:	2
Source:	APA
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Implicit Bias](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#) [Cultural Influences](#) » [Stereotype Threat](#)

What's Holding Women Back

Resource Title: What's Holding Women Back

Description/Annotation: Why are there still so few women in top executive positions? The authors discuss some of the reasons given in industry, one of the most prevalent being the lack of female talent in the pool of qualified candidates for high level profit and loss experience. Citing data from Catalyst reports, perceptions of barriers are explored, and the disparities in these perceptions are examined. For industry and the workforce.

Author Last Name: Wellington

Author First Name: Sheila

Additional Author: Brunit Kropf

: Marcia

Additional Author: Gerkovich

: Paulette R.

Publisher: Harvard Business Publishing

Publisher Location: Boston, MA

Publication Date: 2003, June

Page Numbers: 1-2

Publication Title: Harvard Business Review

Source: Harvard Business Review

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

What's It Like for the Women? Acceptance, Inclusion, and Equity in Predominantly Male Technical Programs

Resource Title: What's It Like for the Women? Acceptance, Inclusion, and Equity in Predominantly Male Technical Programs

Description/Annotation: This paper presents quantitative and qualitative research on female student perceptions of acceptance, inclusion, and equity at their institutions. The findings reveal both positive factors and areas of ongoing challenge for both the women and their institutions. The reported perceptions are useful to both faculty

and administration as they endeavor to meet the needs of this segment of the student body. In an effort to understand what their female students experience, surveys and focus groups were conducted in 1999, 2000, and 2001 at the North Brunswick New Jersey and Long Beach California campuses of DeVry Institute of Technology.

Author Last Name: Goldberg
Author First Name: Barbara M.I.
Additional Author: O'Shaughnessy
:
Liz
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

When do girls lose interest in math and science?

Resource Title: When do girls lose interest in math and science?

Description/Annotation: The article presents the results of the survey on whether girls stop liking mathematics and science, and if they do, at which grade do they stop liking the said subjects. It states that there were 439 fourth-grade girls, 407 fifth-grade girls, 344 sixth-grade girls, 357 seventh-grade girls, and 488 eight-grade girls, which sums up to 1,997 students from the five grades, answering the survey questions. Based on the survey's result, the authors suggest that girls stop liking mathematics and science in seventh grade.

Author Last Name: Blue
Author First Name: Jennifer
Additional Author: Gann
:
Debra
Publication Date: 2008, Dec
Publication Title: Science Scope

Source: HighBeam
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

When Does Gender Trump Money? Bargaining and Time in Household Work.

Resource Title: When Does Gender Trump Money? Bargaining and Time in Household Work.

Description/Annotation: Using Data from the US and Australia, the authors explore the effects of spouses contribution to family income on how housework is divided. The authors found that as a woman's income increased, the housework load became more evenly distributed. On the other hand they also found that gender trumps money.

Author Last Name: Bittman

Author First Name: M.

Additional Author: England
:

Additional Author: Sayer
:

Additional Author: Matheson
:

Publisher: University of Chicago Press

Publication Date: 2003

Page Numbers: 186-214

Publication Title: The American Journal of Sociology

Volume: 109

Issue: 1

Source: University of Wollongong

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Salary](#)

When Flexibility Helps: Another Look at the Availability of Flexible Work Arrangements and Work-Family Conflict

Resource Title:	When Flexibility Helps: Another Look at the Availability of Flexible Work Arrangements and Work-Family Conflict
Description/Annotation:	This 15-page report on an empirical study to investigate the connection between flexible work arrangement and work-family conflict. Looks at two common types of flexible work situations: flextime, where work timing may be flexible; and flexplace, where the place where work is completed may be flexible. The study detected work-family conflict in two varieties: work interference with family (WIF); and family interference with work (FIW). Ultimately, the study suggests that flextime is more effective at controlling work interference with family than flexplace, and that both strategies are more effective at controlling WIF than FIW. The level of family responsibility was also studied as it related to work-family conflict. The study cautions that flexible working arrangements should not be viewed as a universal cure for work-family conflict.
Author Last Name:	Shockley
Author First Name:	Kristen M.
Additional Author:	Allen
:	Tammy D.
Publication Date:	2007
Page Numbers:	479-493
Publication Title:	Journal of Vocational Behavior
Volume:	71
Issue:	3
Source:	ScienceDirect
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#)

When Gender Comes into Play: Factors that Distinguish Colleges of Engineering with above and below Average Enrollments of Women in Undergraduate Engineering

Resource Title: When Gender Comes into Play: Factors that Distinguish Colleges of Engineering with above and below Average Enrollments of Women in Undergraduate Engineering

Description/Annotation: A cluster of items related to gender distinguished between the perceptions of engineering faculty members employed in eight institutions with above and below average enrollment of undergraduate women in engineering. Response patterns point to some of the challenges faced by colleges of engineering with low proportional enrollments of women. Funded by NSF GSE under award #0522767.

Author Last Name: Creamer

Author First Name: Elizabeth G.

Publisher: ASEE

Publication Date: 2009

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full text PDF

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Admissions Bias](#) [Cultural Influences](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Cultural Influences](#) » [Stereotype Threat](#)

When Gender is Considered: Racial Ethnic Minority Students in STEM Majors

Resource Title: When Gender is Considered: Racial Ethnic Minority Students in STEM Majors

Description/Annotation: Using a longitudinal sample of 229 African American, American Indian, and Latina/o college men and women in science, technology, engineering, and mathematics (STEM) majors, this

study examined the factors that positively or negatively affected their academic performance and educational satisfaction. The main premise supporting this study suggested that how racial ethnic minority (REM) men and women interpret and perceive their institutions' racial/ethnic climate is important because it is related to academic and educational outcomes.

Author Last Name: Cole
Author First Name: Darnell G.
Additional Author: Espinoza
: Araceli
Publication Date: 2009
Page Numbers: 263-277
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Issue: 3
Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

When Scientists Choose Motherhood

Resource Title: When Scientists Choose Motherhood

Description/Annotation: This article from "American Scientist" addresses the issue of underrepresentation of women in academia. According to the article, the proportion of female professors entering math-intensive fields like chemistry, computer science, engineering, and physics is low because many women who want to become mothers are simply uninterested in pursuing academic careers in those fields. The article seeks to address the issue by focusing efforts on the problems faced by mothers struggling to raise young families while building tenurable scholarly records. According to the article, modern universities must create policies to target this real issue, which is supported by extensive empirical data, and which lies at the heart of the current problem.

Author Last Name: Williams
Author First Name: Wendy M.
Additional Author: Ceci
:
Stephen J.
Publisher: Sigma Xi, The Scientific Research Society
Publisher Location: Research Triangle Park, NC
Publication Date: 2012, Mar
Publication Title: American Scientist
Volume: 100
Issue: 2
Source: American Scientist
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Where are the Women in Information Technology?

Resource Title: Where are the Women in Information Technology?

Description/Annotation: Women have been underrepresented in IT since its beginnings. This report combines an extensive literature search with interviews in industry and academia to try to answer the question of why this situation still exists despite efforts to change it. There are many cultural and personal reasons for the lack of women in the field and this report explores the reasons and outlook of women in IT. For academics and the information technology industry.

Author Last Name: Ramsey
Author First Name: Nancy
Additional Author: McCorduck
:
Pamela
Publisher: Anita Borg Institute for Women and Technology
Publisher Location: Palo Alto, CA

Publication Date: 2005, Feb

Source: ABI

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Where Have All the Tomboys Gone? Women's Accounts of Gender in Adolescence

Resource Title: Where Have All the Tomboys Gone? Women's Accounts of Gender in Adolescence

Description/Annotation: Study investigating reasons for continuation or cessation of tomboyism in 27 working, lower-middle class adults from the New Jersey area. All interviewed considered themselves childhood tomboys and discuss if, when and why these heterosexual, bisexual and lesbian women stopped considering themselves a tomboy.

Author Last Name: Carr

Author First Name: C. Lynn

Publisher: Springer Netherlands

Publication Date: 2007, Apr

Page Numbers: 439-448

Publication Title: Sex Roles

Volume: 56

Issue: 7-8

Source: SpringerLink

Source Type: Abstract, Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Where the Engineers Are

Resource Title: Where the Engineers Are

Description/Annotation: This 12-page article from "Issues in Science and Technology" discusses how, to guide education policy and maintain its innovation leadership, the United States must acquire an accurate understanding of the quantity and quality of engineering graduates in India and China. The article contains data on degrees conferred in engineering, computer science, and information technology by level of degree in the U.S., China, and India.

Author Last Name: Wadhwa

Author First Name: Vivek

Additional Author: Gereffi

: Gary

Additional Author: Rissing

: Ben

Additional Author: Ong

: Ryan

Publisher: University of Texas at Dallas

Publisher Location: Richardson, TX

Publication Date: 2007

Page Numbers: 73-84

Publication Title: Issues in Science and Technology

Issue: Spring

Source: Issues

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Leadership & Management](#) [Educational Factors](#) » [Retention](#)

Where the Girls Are: The Facts About Gender Equity in Education

Resource Title: Where the Girls Are: The Facts About Gender Equity in Education

Description/Annotation: Where the Girls Are: The Facts About Gender Equity in Education presents a comprehensive look at girls' educational achievement during the past 35 years, paying special attention to the relationship between girls' and boys' progress. Analyses of results from national standardized tests, such as the National Assessment of Educational Progress (NAEP) and the SAT and ACT college entrance examinations, as well as other measures of educational achievement, provide an overall picture of trends in gender equity from elementary school to college and beyond.

Author Last Name: Corbett

Author First Name: Christianne

Additional Author: Hill

: Catherine

Additional Author: St. Rose

: Andresse

Publisher: AAUW Educational Foundation

Publisher Location: Washington, DC

Publication Date: 2008

Source: AAUW

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#) [Educational Factors](#) » [Retention](#)

Where the Woman Are: Research Findings on Gender Issues in Technology Education

Resource Title: Where the Woman Are: Research Findings on Gender Issues in Technology Education

Description/Annotation: This article reports some research findings about gender issues in technology education and relates some actual events that cause concern for the profession. It also includes a Self-Check Questionnaire that teachers and other professionals can use to examine their own behaviors and speech patterns, which could be

turning females away from their classes or our profession. It is hoped that understanding some of the perceptions of women in the profession may help make it a more comfortable environment for females.

Author Last Name: Haynie
Author First Name: W.J. III
Publication Date: 2005, Apr
Page Numbers: 12
Publication Title: Technology Teacher
Volume: 64
Issue: 7
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career](#)
[Factors](#) » [Organizational Culture](#)

Which computing majors are right for me?

Resource Title: Which computing majors are right for me?
Description/Annotation: This conversation card, co-branded by the National Center for Women & Information Technology (NCWIT) and the Association for Computing Machinery (ACM), explains how computing interests and talents line up with computer science undergraduate degrees and the careers that follow. The card is available in PDF format.
Author Last Name: NCWIT
Additional Author: ACM
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2011, Jan
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

White House Council on Women and Girls

Resource Title: White House Council on Women and Girls

Description/Annotation: Executive order, signed by Pres. Obama March 11, 2009, establishing cross-agency council to ensure that the needs of women and girls are taken into account in agency programs and policies. White House blog contains 10 minute video of announcement by Pres. Obama.

Web site Link: [Link to Resource](#)

More: The White House Council on Women and Girls will be chaired by Senior Advisor Valerie Jarrett, with Director of Public Liaison Tina Tchen serving as Executive Director, and will be made up of Cabinet Secretaries and other top White House staff.

Resources:

- The [official release](#) related to the establishment of the WHCWG.
- Independent [blog](#) describing White House STEM domestic policy maker, Steve Robinson, and his role in the WHCWG

Site Access Details: This site is publicly accessible.

Partners and Funding: The White House Council on Women and Girls will meet regularly, and will serve as a forum for all involved agencies to focus on women. Initial members of the Council include: The Secretary of State; The Secretary of the Treasury; The Secretary of Defense; The Attorney General; The Secretary of Interior; The Secretary of Agriculture; The Secretary of Commerce; The Secretary of Labor; The Secretary of Health and Human Services; The Secretary of Housing and Urban Development; The Secretary of Transportation; The Secretary of Energy; The Secretary of Education; The Secretary of Veterans Affairs; The Secretary of Homeland Security; The United States Ambassador to the United Nations; The United States Trade Representative; The Director of the Office of Management and Budget; The Administrator of the Environmental Protection Agency; The Administrator of the Small Business Administration; The Director of the Office of Personnel Management; The Chair of the Council of Economic Advisors; The

Director of the National Economic Council; and The Director of the Domestic Policy Council.

Contact Name: Valerie Jarrett,

Last Update Date: June 12, 2013

Resource Type Categories: Website/Portal Topical Categories: Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » Government

Who are Physician-Scientists' Role Models? Gender Makes a Difference

Resource Title: Who are Physician-Scientists' Role Models? Gender Makes a Difference

Description/Annotation: Study examining the importance of a role model's gender in the career development of physician-scientists.

Author Last Name: Bakken

Author First Name: L. L.

Publication Date: 2005

Page Numbers: 502-506

Publication Title: Academic Medicine

Volume: 80

Issue: 5

Source: PubMed

Source Type: Abstract

Resource Type Categories: Articles/Reports » Journal Articles Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Mentoring Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Who enrolls in electrical engineering? A quantitative analysis of U.S.A. student trajectories

Resource Title: Who enrolls in electrical engineering? A quantitative analysis of U.S.A. student trajectories

Description/Annotation: Using a dataset from universities in the United States of America that includes over 70,000 students who majored in engineering, this work considers the subset of that population matriculating in EE. The rates of EE matriculation and six-year graduation vary by race and gender. The relevant findings are that males outnumber females at all levels of undergraduate EE. EE is the most popular choice for Asian and Black males at matriculation and the second choice (after ME) for Hispanic and White males. EE is much more popular for Asian and Black females than Hispanic and White females at matriculation and graduation. In fact, more Black females graduate in EE than in any other engineering discipline. The six-year graduation rate of EE matriculants is higher than that of students of other engineering disciplines. These findings suggest the importance of disaggregating by engineering subdiscipline and examining how such information is useful in improving recruitment and retention overall. Funded by NSF GSE under award #0734085 & #0734062.

Author Last Name: Lord
Author First Name: S.M.
Additional Author: Camacho
: M.M.
Additional Author: Layton
: R.A.
Additional Author: Ohland
: M.W.
Publication Date: 2010
Page Numbers: 839-844
Publication Title: Proceedings of the IEEE EDUCON 2010
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Who Gets Promoted? Gender Differences in Science and Engineering Academia

Resource Title:	Who Gets Promoted? Gender Differences in Science and Engineering Academia
Description/Annotation:	Using a nationally representative sample of doctoral academic scientists and engineers, this study examines gender differences in the likelihood of having tenure and senior faculty ranks after controlling for academic age, field, doctoral origins, employing educational institution, productivity, postdoctoral positions, work activities, and family characteristics. Logistic regressions show that many of these controls are significant; that biology and employment at comprehensive universities have a gender-specific advantage for women; and that postdoctoral positions, teaching instead of doing administrative work, and having children have a gender-specific disadvantage. Although the statistical methods employed here do not reveal the exact nature of how gender inequities in science and engineering careers arise, the author suggests that they exist.
Author Last Name:	Olson
Author First Name:	Kristen
Publication Date:	2002
Publication Title:	Journal of Women and Minorities in Science and Engineering
Volume:	8
Issue:	3&4
Source:	Begell House
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Who Invents IT? An Analysis of Women's Participation in Information Technology Patenting

Resource Title:	Who Invents IT? An Analysis of Women's Participation in Information Technology Patenting
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Description/Annotation: This 104-page report examines the rates at which women have been patenting in information technology (IT) and how these rates have evolved over the past 20 years. It also identifies how these rates differ across IT industry sub-categories and across specific organizations. The report includes an introduction, methodology, findings, and conclusion section as well as an appendix with a list of IT patents by female inventor. The full report is available in PDF format.

Author Last Name: Ashcraft
Author First Name: Catherine
Additional Author: Breitzman
: Anthony
Publisher: NCWIT
Publisher Location: Boulder, CO
Publication Date: 2007, May
Page Numbers: 1-103
Source: NCWIT
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Legal Considerations](#) [Career Factors](#) » [Professional Development](#)

Who Is Helped by Friendly Inclusion?: A Transformation Teaching Model

Resource Title: Who Is Helped by Friendly Inclusion?: A Transformation Teaching Model

Description/Annotation: This 18-page paper discusses a project aimed at educating teachers about pedagogical changes to make courses more friendly to women and members of diverse communities. The goal of the project is to address attrition through a more inclusive curriculum.

Author Last Name: Rosser
Author First Name: Sue V.

Additional Author: Kelly
: Bonnie
Publication Date: 1994
Page Numbers: 175-192
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 1
Issue: 3
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Who Succeeds in Science?: The Gender Dimension

Resource Title: Who Succeeds in Science?: The Gender Dimension
Description/Annotation: This book offers twenty stories of career paths in science of both men and women to highlight the critical choices and events that led to the formation of their careers. These selected stories are illustrative of a larger collection of information from 700 stories.
Author Last Name: Sonnert
Author First Name: Gerhard
Additional Author: Holton
: Gerald
Publisher: Rutgers University Press
Publisher Location: New Brunswick, NJ
Publication Date: 1995
Source: Google Book Search
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Retention](#)

Who Teaches Whom? Race and the Distribution of Novice Teachers

Resource Title:	Who Teaches Whom? Race and the Distribution of Novice Teachers
Description/Annotation:	This 15-page article reports on a study of the relationship between the racial academic achievement gap and students' exposure to novice teachers at a K-12 level. The study, which used data from the North Carolina Department of Public Instruction, suggests that the differential exposure to new teachers may contribute to the racial achievement gap.
Author Last Name:	Clotfelter
Author First Name:	Charles T.
Additional Author:	Ladd
:	Helen F.
Additional Author:	Vigdor
:	Jacob
Publication Date:	2004
Page Numbers:	377-392
Publication Title:	Economics of Education Review
Volume:	24
Issue:	4
Source:	ScienceDirect
Source Type:	Abstract, Available for Purchase

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#)

Who wants to have a career in science or math? exploring adolescents' future aspirations by gender and race/ethnicity

Resource Title: Who wants to have a career in science or math? exploring adolescents' future aspirations by gender and race/ethnicity

Description/Annotation: This study utilizes data from a national cohort of eighth-grade students to consider how different gender and racial/ethnic subgroups compare to White males in their likelihood to aspire toward a science or math occupation and examine the roles that self-concept, enjoyment, and achievement may play in shaping disparities at this early point in occupational trajectories. Researchers find that the importance of enjoyment, self-concept, and achievement in explaining disparities in science career aspirations relative to White males varies according to the female subgroup considered, such that no singular story applies to females across different racial/ethnic backgrounds. For math, White and Hispanic females remain approximately half as likely as White males to aspire to a math occupation regardless of all indicators we consider. Finally, Black and Hispanic adolescent boys have generally comparable aspirations toward future careers in science and math as their White male peers, despite notably large differences in achievement. Authors discuss implications of results for future research on equity.

Author Last Name: Riegle-Crumb

Author First Name: Catherine

Additional Author: Moore

: Chelsea

Additional Author: Ramos-Wada

: Aida

Publication Date: 2011, May

Page Numbers: 458-476

Publication Title: Science Education

Volume: 95

Issue: 3

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career
Interest/Awareness

Who Will Do the Science of the Future?: A Symposium on Careers of Women in Science

Resource Title:	Who Will Do the Science of the Future?: A Symposium on Careers of Women in Science
Description/Annotation:	Who Will Do the Science of the Future? is the summary of a symposium on careers of women in science. The symposium incorporated three panels of presenters: one focusing on the next generation, Science for All Students; a second that looks in depth at the issues reflected in one particular field of science, computer science, reflecting an in-depth view of academic and industrial computer scientists; and a third that focuses on strategies and policies to recruit, retain, and promote career advancement for women scientists. Lastly, there was a plenary address on how to ensure women continue to advance into positions of leadership in science.
Author Last Name:	NRC
Publisher:	National Academies Press, Inc.
Publisher Location:	Washington, D.C.
Publication Date:	2000
Page Numbers:	104
Source:	National Academies Press
Source Type:	Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical
Categories: Career Factors Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Career Factors » Leadership & Management Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Who's computing? Gender and race differences in young adults' decisions to pursue an information technology career

Resource Title: Who's computing? Gender and race differences in young adults' decisions to pursue an information technology career

Description/Annotation: This chapter explores the important social-psychological factors along individuals' developmental pathways that influence youths' computer-related occupational decisions. Findings suggest that these factors differentially influence information technology pursuits dependent on youths' race and gender.

Author Last Name: Zarrett

Author First Name: Nicole R.

Additional Author: Malanchuk

: Oksana

Publication Date: 2005, Dec

Page Numbers: 65-84

Publication Title: New Directions for Child and Adolescent Development

Volume: 2005

Issue: 110

Source: Wiley

Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports Book](#) » [Book Chapter Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences Individual Beliefs and Behaviors](#) » [Family & Peers Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [Self-perception Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Who's persisting in engineering? A comparative analysis of female and male Asian, Black, Hispanic, Native American and White students

Resource Title: Who's persisting in engineering? A comparative analysis of female and male Asian, Black, Hispanic, Native American and White students

Description/Annotation: This study recognizes that women of different ethnic backgrounds warrant disaggregated analysis because they do not necessarily share a common experience in engineering education. Using a

longitudinal, comprehensive dataset of more than 79,000 students who matriculated in engineering at nine universities, this research examines the question: How does the persistence of engineering students vary by disaggregated combinations of gender and race/ethnicity? Funded by NSF GSE under award #0734085.

Author Last Name: Lord
Author First Name: Susan M.
Additional Author: Camacho
:
Michelle M.
Additional Author: Layton
:
Richard A.
Additional Author: Long
:
Russell A.
Additional Author: Ohland
:
Matthew W.
Publication Date: 2009
Page Numbers: 167-190
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 15
Source: Purdue University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Whose Knowledge? Gender, Education, Science and History

Resource Title: Whose Knowledge? Gender, Education, Science and History
Description/Annotation: This paper compares and analyses the interrelationships of education, gender and science at both the end of the long eighteenth century and in the early twentieth century in order to

explore issues of knowledge and gender and demonstrate the use of a historical perspective.

Author Last Name: Watts
Author First Name: Ruth
Publication Date: 2007, May
Page Numbers: 282-302
Publication Title: History of Education: Journal of the History of Education
Volume: 36
Issue: 3
Source: ERIC
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) » [Cognition](#) [Individual Beliefs and Behaviors](#)

Why Are the Returns to Schooling Higher for Women than for Men?

Resource Title: Why Are the Returns to Schooling Higher for Women than for Men?

Description/Annotation: In this 20-page paper, the authors discuss a study using data from the National Longitudinal Survey of Youth that looks at the noted fact that women experience higher payoffs from college education than men and yet earn lower salaries overall. The data from the survey is used to examine causes of this gender differential in educational returns.

Author Last Name: Dougherty
Author First Name: Christopher
Publisher: University of Wisconsin Press
Publisher Location: Madison, WI
Publication Date: 2005
Page Numbers: 969-988
Publication Title: Journal of Human Resources

Volume: 40
Issue: 4
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Salary](#)

Why Aren't More Women in Science? Top Researchers Debate the Evidence

Resource Title: Why Aren't More Women in Science? Top Researchers Debate the Evidence

Description/Annotation: A book containing 15 essays on findings, written by 19 leading researchers on gender differences. For example, authors include Janet Hyde, Virginia Valian, Elizabeth Spelke and Ariel Grace, Carol Dweck and Jacquelynne Eccles, David Lubinski and Camilla Benbow. Reviewed in *Science* (13 July 2007), Vol. 317, by Marcia C. Linn. page 199-200.

Author Last Name: Ceci

Author First Name: Stephen J.

Additional Author: Williams

:

Wendy M.

Publisher: American Psychological Association

Publisher Location: Washington, DC

Publication Date: 2007

Page Numbers: 274

Database Name: APA Books

Source Type: Summary, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Why aren't there more women engineers?

Resource Title:	Why aren't there more women engineers?
Description/Annotation:	This article discusses why such a small percentage of women are going into the field of engineering, compared to larger numbers of women who are increasingly breaking into other male dominated fields. The questions addressed in this survey are whether women inherently lack the same essential skills as men, and whether men are creating obstacles for women to succeed in engineering. A study was done on a college campus which revealed male students may receive more support than female students, many male students have negative attitudes towards female students, and male students are more confident about their abilities to succeed in engineering. Results are discussed and are of interest to educators, parents, and students.
Author Last Name:	Meinholdt
Author First Name:	Connie
Additional Author:	Murray
:	Susan L.
Publisher:	Begell House
Publisher Location:	Redding, CT
Publication Date:	1999
Page Numbers:	239-263
Publication Title:	Journal of Women and Minorities in Science and Engineering,
Volume:	5
Issue:	3
Source:	ERIC
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Why Aren't There More Women in Engineering: Can We really Do Anything?

Resource Title: Why Aren't There More Women in Engineering: Can We really Do Anything?

Description/Annotation: This paper describes efforts at Arizona State University to increase the recruitment and retention of women in engineering, computer science, and construction are introduced. Recruitment efforts include summer programs for middle school and high school girls, campus events during the academic year, a Bridge Program for entering freshmen women, Saturday Academies for middle school and high school women, and a program with middle school and high school teachers and counselors to acquaint them with engineering. These participants are helped to develop modules on engineering that will be attractive to young women and that will be incorporated in their science and math classes. Retention programs for college women in the College of Engineering and Applied Sciences are also presented. The paper describes lessons learned while developing these programs and also examines how to start and build a program to recruit and to retain women in engineering. Funded by NSF GSE under award #9872818.

Author Last Name: Anderson-Rowland

Author First Name: Mary R.

Publication Date: 2003

Publication Title: ASEE Annual Conference & Exposition

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Why Didn't I Know? Black Women Mathematicians and Their Avenues of Exposure to the Doctorate

Resource Title: Why Didn't I Know? Black Women Mathematicians and Their Avenues of Exposure to the Doctorate

Description/Annotation: This qualitative study examines the formative, professional, and personal experiences of twelve black women who have obtained their doctoral degrees in mathematics. Black feminist thought

inquiry was used as the theoretical framework and a grounded-theory approach was used to analyze the data. Through these women's experiences, informal and formal avenues of exposure such as family influence, informal dialogue, and attending historically black colleges and universities emerged as factors for their success in becoming a mathematician. Findings indicate that greater awareness and exposure to the field of mathematics and other STEM disciplines are beneficial for the success of women and minorities.

Author Last Name: Borum
Author First Name: Viveka
Additional Author: Walker
:
Publication Date: 2011
Page Numbers: 357-369
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Why do Women Engineering and Computer Science Undergraduates Persist in their Major?

Resource Title: Why do Women Engineering and Computer Science Undergraduates Persist in their Major?

Description/Annotation: Completing an undergraduate degree in engineering or computer science is challenging. Many initiatives relate to the first years of study, but when do students, and women in particular, contemplate switching majors and what influences them to persist? This paper discusses the findings of a survey that was conducted to begin to answer this complex issue.

Author Last Name: Bunker
Author First Name: Kaitlyn J.
Additional Author: Rebb
:
Raven R.
Additional Author: Brown
:
Laura E.
Additional Author: Hein
:
Gretchen L.
Additional Author: Onder
:
Nilufer
Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)
Publication Date: 2011
Source: WEPAN
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Why Do Women Leave the Engineering Workforce?

Resource Title: Why Do Women Leave the Engineering Workforce?
Description/Annotation: Third report in SWE series discussing national survey about engineering reporting reasons women leave engineering compared to those given by men.
Author Last Name: Frehill
Author First Name: Lisa M.
Publisher: Society of Women Engineers
Publication Date: 2008 Winter
Page Numbers: 24-26
Publication Title: SWE Magazine of the Society of Women Engineers
Issue: Winter

Source: SWE
Source Type: Link to full text

Connected Advocates: Projects & Programs » Engineering Inclusive Teaching (EIT) Resource Type
Categories: Articles/Reports » Journal Articles Topical Categories: Career Factors » Employment Career
Factors » Organizational Culture Career Factors » Retention

Why do women opt out? Sense of belonging and women's representation in mathematics

Resource Title: Why do women opt out? Sense of belonging and women's representation in mathematics

Description/Annotation: In this article, sense of belonging to math was established as a new and important factor in the representation gap between males and females in math. First, a new scale of sense of belonging to math was created and validated, and was found to predict unique variance in college students' intent to pursue math in the future. Second, in a longitudinal study of calculus students, students' perceptions of 2 factors in their math environment-the message that math ability is a fixed trait and the stereotype that women have less of this ability than men-worked together to erode women's, but not men's, sense of belonging in math. Their lowered sense of belonging, in turn, mediated women's desire to pursue math in the future and their math grades. Interestingly, the message that math ability could be acquired protected women from negative stereotypes, allowing them to maintain a high sense of belonging in math and the intention to pursue math in the future. Funded by NSF GSE under award #0936769.

Author Last Name: Good
Author First Name: C.
Additional Author: Rattan
:
Additional Author: Dweck
:
Publication Date: 2012
Page Numbers: 700-717
Publication Title: Journal of Personality and Social Psychology

Volume: 102
Issue: 4
Source: NIH
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Cultural Influences](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#) [Cultural Influences](#) » [Stereotype Threat](#)

Why Do Women Underperform Under Stereotype Threat? Evidence for the Role of Negative Thinking

Resource Title: Why Do Women Underperform Under Stereotype Threat? Evidence for the Role of Negative Thinking

Description/Annotation: This seven-page article contains the result of an experiment in which female psychology students were given a math test. Half were told that men and women perform differently on math tests, while the other half were told that men and women do not perform differently. It was then found that the group exposed to the stereotype performed worse than the other group and reported more negative thoughts. While this research was not conducted on women in science or engineering, the results may also apply to responses to stereotypes in STEM fields.

Author Last Name: Cadinu
Author First Name: Mara
Additional Author: Maass
:
Anne
Additional Author: Rosabianca
:
Alessandra
Additional Author: Kiesner
:
Jeff
Publisher: Wiley-Blackwell
Publisher Location: Hoboken, NJ
Publication Date: 2005, Jul

Page Numbers: 572-578
Publication Title: Psychological Science
Volume: 16
Issue: 7
Source: University of Padova
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) » [Cognition Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception Cultural Influences](#) » [Stereotype Threat](#)

Why don't girls choose technological studies? Adolescents' stereotypes and attitudes towards studies related to medicine or engineering

Resource Title: Why don't girls choose technological studies? Adolescents' stereotypes and attitudes towards studies related to medicine or engineering

Description/Annotation: This article presents two studies which explore the influence of gender on choosing technological studies by assessing males and females who choose studies related to medicine or engineering. The studies measure implicit attitudes towards males and females in medicine and engineering fields. Results indicate that girls who choose technology are more poorly appraised than girls who choose other studies and that implicit attitudes are more favorable towards women if they are studying medicine and towards men if they study engineering.

Author Last Name: Lopez-Sez
Author First Name: M.
Additional Author: Puertas
:
S.
Additional Author: Sinz
:
M.
Publisher: University of Madrid
Publication Date: 2011, May

Page Numbers: 74-87
Publication Title: The Spanish Journal of Psychology
Volume: 14
Issue: 1
Source: National Institute of Health (NIH)
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness Career Factors](#) » [Stereotype Threat](#)

Why Not Ascription? Organizations' Employment of Male and Female Managers

Resource Title: Why Not Ascription? Organizations' Employment of Male and Female Managers

Description/Annotation: This article examines personnel practices of organizations and their effects on division of labor between men and women managers. Since there are more men in management, is it because organizations have an informal, gender specific way of hiring, and would formalized personnel methods increase the number of women managers hired? For industry and the workforce.

Author Last Name: Reskin

Author First Name: Barbara F.

Additional Author: McBrier

: Debra B.

Publisher: American Sociological Society

Publisher Location: Menasha, WI

Publication Date: 2000

Page Numbers: 210-233

Publication Title: American Sociological Review

Volume: 65

Issue: 2

Source: JSTOR
Source Type: Abstract

Resource Type Categories: Articles/Reports » Media (Newspapers, Magazines) Topical
Categories: Career Factors Career Factors » Hiring Practices Career Factors » Leadership &
Management Career Factors » Organizational Culture

Why NOT Engineering - Perspectives of Young Women and the Influence of the Media

Resource Title: Why NOT Engineering - Perspectives of Young Women and the Influence of the Media

Description/Annotation: This paper discusses a pilot study developed to assess how young women (10th grade girls) come to know the engineering profession. The study analyzes young women's career exploration approach and the influence that the engineering language and imagery has upon the young women as they explore the profession. The contents of this paper include: definition of the problem, purpose of the study, research questions, preliminary research, research design and methods, and early findings.

Author Last Name: Bruning
Author First Name: Monica J.
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences » Media &
Entertainment Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Why Should Young Women Consider a Career in Information Technology? (Talking Points)

Resource Title: Why Should Young Women Consider a Career in Information Technology? (Talking Points)

Description/Annotation: This resource provides several points to begin a discussion about the importance of women in Information Technology. The points include "what you should tell a young woman about a career in IT," and "how can a young woman prepare now for a career and IT?"

Author Last Name: Barker

Author First Name: Lecia

Additional Author: Ashcraft

: Catherine

Publisher: National Center for Women and Information Technology (NCWIT)

Publication Date: 2008

Page Numbers: 2

Source: NCWIT

Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Why So Few? Women in Science, Technology, Engineering and Mathematics

Resource Title: Why So Few? Women in Science, Technology, Engineering and Mathematics

Description/Annotation: 134 page report from AAUW describing eight factors that point to environmental and social barriers – including stereotypes, gender bias and the climate of science and engineering departments in colleges and universities – that continue to block women’s participation and progress in science, technology, engineering, and math. The report also includes up to date statistics on girls’ and women’s achievement and participation in these areas and offers new ideas for what each of us can do to more fully open scientific and engineering fields to girls and women.

Author Last Name: Hill

Author First Name: Catherine
Additional Author: Corbett
: Christianne
Additional Author: Andresse
: Rose
Publisher: AAUW
Publisher Location: Washington, D.C.
Publication Date: 2010
Page Numbers: 134
Source: AAUW
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

Why So Slow? The Advancement of Women

Resource Title: Why So Slow? The Advancement of Women
Description/Annotation: An academic-in-tone, scholarly discourse on gender discrepancies and explanations of the slow progress made by women in the professions. Research shows women still receive less than men in pay, advancement, and respect, and that men are overrated and women underrated because of our ingrained belief systems on gender. Extensive research and synthesizing of others' work to present a well thought out and thought provoking look at where we are today in relation to gender equality.

Author Last Name: Valian
Author First Name: Virginia
Publisher: The MIT Press
Publisher Location: Cambridge, MA
Publication Date: 1999, Feb
Page Numbers: 1-421
Source: Amazon

Source Type: Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Career Factors » Professional Development Career Factors » Retention

Why Women Opt Out of the Rat Race and How to Catch Up Again

Resource Title: Why Women Opt Out of the Rat Race and How to Catch Up Again

Description/Annotation: A powerpoint presentation for the SWE 2008 National Conference. The presentation, although lighthearted at the beginning, discusses reasons women engineers choose to leave the workforce, and how they can effectively rejoin when they want to return. For industry and workforce women and men.

Author Last Name: Pandy

Author First Name: Shweta

Publisher: SWE National Conference

Publisher Location: Baltimore, MD

Publication Date: 2008

Page Numbers: 1-15

Source: 2008 National Conference for Women Engineers (SWE)

Source Type: Full text

Resource Type Categories: Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Career Factors » Retention

Widening Paths to Success, Improving the Environment, and Moving Toward Lessons Learned from the Experiences of POWRE and CBL Awardees

Resource Title: Widening Paths to Success, Improving the Environment, and Moving Toward Lessons Learned from the Experiences of POWRE and CBL Awardees

Description/Annotation: This 19-page paper report the results of a study of women recipients of the Professional Opportunities for Women in Research and Education (POWRE) award and recipients of the Clare Boothe Luce (CBL) Professorship. The experiences of the recipients of each award are compared and contrasted; recipients of the POWRE award will typically work in research institutions, while CBL awardees will typically work in smaller liberal arts colleges. Themes from qualitative interviews are discussed and the paper concludes with policy recommendations to address the most critical issues identified in the study.

Author Last Name: Rosser

Author First Name: Sue V.

Additional Author: Daniels

: Jane Z.

Publication Date: 2004

Page Numbers: 131-148

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 10

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Widening the Net: National Estimates of Gender Disparities in Engineering

Resource Title: Widening the Net: National Estimates of Gender Disparities in Engineering

Description/Annotation: This paper explores the causes behind the severe underrepresentation of women in engineering. Based on national data on undergraduate engineering programs, this study presents cross-sectional estimates of male and female student retention. Contrary to widespread beliefs, the study found that overall and in most disciplines there is no differential attrition by gender. Instead, results suggest that gender disparities in engineering are largely driven by inadequate enrollment (not inadequate retention) of women. The paper concludes that outreach—within institutions

of higher education, across institutions (into two-year colleges, middle and high schools), and into K-12 curricular reform—are needed to address what is, at its very core, a recruitment problem.

Author Last Name: De Cohen
Author First Name: Clemencia Costentino
Additional Author: Deterding
:
Nicole
Publication Date: 2009, Jul
Page Numbers: 211-224
Publication Title: Journal of Engineering Education
Source: Urban Institute
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career](#)
[Interest/Awareness](#)

Wider Opportunities for Women (WoW) Blog

Resource Title: Wider Opportunities for Women (WoW) Blog
Description/Annotation: Every week this blog features a woman who has made a significant contribution to engineering and science.
Web site Link: [Link to Resource](#)
More: CR4 is a community-based site for the engineering community. WoW, or Wider Opportunities for Women, is a subset of that site.
Resources: Blog entries include short biographies of engineers, inventors and scientists as well as topical discussions related to the STEM community.
Site Access Details: This site is publicly accessible.
Partners and Funding: CR4 is funded by GlobalSpec, a specialized vertical search, information services and e-publishing company serving the

engineering, manufacturing and related scientific and technical market segments.

Last Update Date: June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Retention](#)

Wikinomics: How Mass Collaboration Changes Everything

Resource Title: Wikinomics: How Mass Collaboration Changes Everything

Description/Annotation: Popular book describes how to harness collective capability and genius to spur innovation, growth, and success. A guide to one of the most profound changes of our time. The book challenges assumptions and helps business leaders understand competitiveness in the twenty-first century.

Author Last Name: Tapscott

Author First Name: Don

Additional Author: Williams

: Anthony D.

Publisher: Portfolio

Publisher Location: New York, NY

Publication Date: 2006

Source: Wikinomics

Source Type: Available for sale, Blog, Wiki

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Organizational Culture](#) [Career Factors » Professional Development](#)

Will they stay or will they go?

Resource Title: Will they stay or will they go?

Description/Annotation: The research reported here confirms and deepens our understanding of factors that affect women's confidence in their ability to complete a computer science or computer engineering (CSE) doctoral degree. Analysis of data from a longitudinal study

of women participating in the Computing Research Association's Graduate Cohort for Women identifies the conditions or experiences that women perceive as influential. More importantly, we found that women who are not confident in their ability to complete their programs are about four times more likely to think about leaving CSE than those who begin confidently. Funded by NSF GSE under award #0533580.

Author Last Name: Cohoon
Author First Name: J. McGrath
Additional Author: Wu
:
Additional Author: Luo
:
Publisher: ACM
Publisher Location: New York, NY
Publication Date: 2008
Page Numbers: 397-401
Publication Title: Proceedings of the 39th SIGCSE technical symposium on Computer science education
Source: ACM
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder Educational Factors](#) » [Retention](#)

Win-Win Workplace Practices: Improved Organizational Results and Improved Quality of Life

Resource Title: Win-Win Workplace Practices: Improved Organizational Results and Improved Quality of Life
Description/Annotation: This study, recognizing the importance of providing women and men with family-friendly practices, looks at what organizations need to do to recruit and retain talent while providing family-

friendly benefits to improve workers work-life balance. For industry leaders and the workforce.

Author Last Name: Reed
Author First Name: Patricia S.
Additional Author: Clark
:
Shirley M.
Publisher: Choose 2 Lead Woman's Foundation
Publisher Location: Vienna, VA
Publication Date: 2004, Sep
Page Numbers: 1-35
Source: Choose 2 Lead
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Winning the Talent War for Women: Sometimes It Takes a Revolution

Resource Title: Winning the Talent War for Women: Sometimes It Takes a Revolution

Description/Annotation: An article describing efforts by Deloitte & Touche to retain women. In response to losing a high percentage of their talent, Deloitte resolved to discover the reasons why so many left and what the company could do to reverse the situation. Led by the CFO, a diverse task force was formed and a cultural revolution began. Beginning with analyzing the problem, the task force defined six principles in their approach to retain talented women. The number of women partners and directors increased from 5% to 14%, and the gender gap in turnover was eliminated. Good case study for other companies striving to retain women and increase their talent pool.

Author Last Name: McCracken
Author First Name: Douglas M.
Publisher: Harvard Business School Publishing

Publisher Location: Boston, MA
Publication Date: 2000, Jun
Page Numbers: 1-6
Publication Title: Harvard Business Review
Volume: 78
Issue: 6
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Wisconsin and Hawaii Wit Partnership to Encourage Women and Girls in Rural Areas to Pursue STEM Fields

Resource Title: Wisconsin and Hawaii Wit Partnership to Encourage Women and Girls in Rural Areas to Pursue STEM Fields

Description/Annotation: This paper discusses the Wisconsin and Hawaii Women in Technology project which encourages women and girls living in rural areas to enter into science, technology, engineering and math (STEM) fields.

Author Last Name: Keshmiri
Author First Name: Firouzeh
Additional Author: Bloor
: Ann
Additional Author: Wellenstein
: Mary Jo
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

WISE Choices? Understanding Occupational Decision-making in a Climate of Equal Opportunities for Women in Science and Technology

Resource Title:	WISE Choices? Understanding Occupational Decision-making in a Climate of Equal Opportunities for Women in Science and Technology
Description/Annotation:	This report focuses on successes of Women in Science and Engineering (WISE), finding success is limited as WISE focuses on women's "choices", which in turn are hampered by lack of information on scientific and technological information.
Author Last Name:	Henwood
Author First Name:	Flis
Publication Date:	1996, Jun
Page Numbers:	199-225
Publication Title:	Gender and Education
Volume:	8
Issue:	2
Source:	Ingenta Connect
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

WISE Choices? Understanding Occupational Decision-making in a Climate of Equal Opportunities for Women in Science and Technology

Resource Title: WISE Choices? Understanding Occupational Decision-making in a Climate of Equal Opportunities for Women in Science and Technology

Description/Annotation: Draws on empirical research into the occupational decision-making process and examines what images/pre-conceptions may be deterring women from entering the science and technological fields.

Author Last Name: Henwood

Author First Name: F.

Publisher: Routledge, Inc.

Publisher Location: New York, NY

Publication Date: 1996, Jun

Page Numbers: 199-214

Publication Title: Gender and Education

Volume: 8

Issue: 2

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

WISELI Online Library

Resource Title: WISELI Online Library

Description/Annotation: WISELI's Library includes over 1300 citations to books and articles relevant to the advancement and promotion of women in science and engineering. These citations are available via the UW-Madison's RefShare Database. Information on this database, its features, and how to use it are provided.

Author Last Name: WISELI

Publisher: University of Wisconsin-Madison

Publisher Location: Madison, WI

Publication Date: 2002

Source: WISELI
Source Type: Library website

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

WISELI Year 1: Advancing Institutional Transformation

Resource Title: WISELI Year 1: Advancing Institutional Transformation

Description/Annotation: This documentary on the Women in Science and Engineering Leadership Institute, based at the University of Wisconsin - Madison, captures the first year of a five-year National Science Foundation-funded effort to investigate why such a small percentage of faculty in the biological and physical sciences are female. The documentary looks back on the remarkable efforts of UW-Madison administrators and women faculty over the years to enhance the working environments of women scientists and engineers, and shows how WISELI is currently using the campus as a living laboratory to study and test interventions expected to have a positive effect on the advancement of women in science and engineering.

Author Last Name: WISELI

Additional Author: Eclipse Multimedia Productions, Inc.

Publisher: Eclipse Multimedia Productions, Inc.

Publisher Location: Madison, WI

Publication Date: 2002

Source: WISELI

Source Type: Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Career Factors](#) » [Retention](#)

WISELI Year 5: FORWARD with Institutional Transformation

Resource Title: WISELI Year 5: FORWARD with Institutional Transformation

Description/Annotation: This third documentary in a series of three provides an overview of WISELI, an NSF-funded ADVANCE project at the University of Wisconsin-Madison. Outcomes of several WISELI initiatives are presented, along with discussions of the changes seen at UW-Madison since the project began. The program concludes with WISELI's future plans, including efforts to disseminate initiatives from the project's first five years.

Author Last Name: WISELI

Additional Author: Eclipse Multimedia Productions, Inc.

Publisher: Eclipse Multimedia Productions, Inc.

Publisher Location: Madison, WI

Publication Date: 2006

Source: WISELI

Source Type: Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#)

WISELI Years 2-4: Building on a Legacy

Resource Title: WISELI Years 2-4: Building on a Legacy

Description/Annotation: This second documentary in a series of three briefly summarizes the creation of the Women in Science & Engineering Leadership Institute (WISELI) at the University of Wisconsin-Madison. Three of WISELI's major new initiatives designed to increase the recruitment, retention and advancement of women in academic science and engineering are outlined: climate workshops for department chairs; workshops for search committee chairs; and the Life Cycle Research Grant program. Finally, some unexpected issues that have arisen in the course of WISELI's work are also discussed.

Author Last Name: WISELI

Additional Author: Eclipse Multimedia Productions, Inc.

Publisher: Eclipse Multimedia Productions, Inc.

Publisher Location: Madison, WI

Publication Date: 2004
Source: WISELI
Source Type: Video

Resource Type Categories: [Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

WISER women: Fostering undergraduate success in science and engineering with a residential academic program

Resource Title: WISER women: Fostering undergraduate success in science and engineering with a residential academic program

Description/Annotation: This article discusses the successful outcomes of the Women in Science and Engineering Residential (WISER) Program which aims to reduce the disproportionate loss of women from science and engineering majors at the University of Wisconsin-Madison. Useful reference for others attempting to create similar programs.

Author Last Name: Allen

Author First Name: Caitilyn

Publication Date: 1999

Page Numbers: 265-277

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 5

Issue: 3

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors » Retention](#)

Women "Take Care," Men "Take Charge:" Stereotyping of U.S. Business Leaders Exposed

Resource Title:	Women "Take Care," Men "Take Charge:" Stereotyping of U.S. Business Leaders Exposed
Description/Annotation:	The first in a series of studies on barriers to advancement for women, this study examines the effects of gender stereotyping on leadership. The notion that female leaders "take care" while male leaders "take charge" is studied by interviewing men and women, as well as the perceptions of who are better problem-solvers, men or women.
Author Last Name:	Catalyst
Publisher:	Catalyst
Publisher Location:	New York, NY
Publication Date:	2005, Oct
Page Numbers:	1-45
Source:	Catalyst
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Stereotype Threat](#)

Women and ALANA students in STEM disciplines: Evaluation of student retention and progress towards STEM degrees

Resource Title:	Women and ALANA students in STEM disciplines: Evaluation of student retention and progress towards STEM degrees
Description/Annotation:	This paper focuses on whether or not there are significant differences between gender and racial groups across measures of academic performance, retention, and degree attainment at a four-year comprehensive university with a liberal arts focus. This was of interest because of an ongoing concern about the overall enrollments in STEM fields at Loyola University Maryland. With the exception of Biology, which is often seen as the pre-medical

career path of choice, the university was seeing low enrollments especially in physics, computer science and engineering.

Author Last Name: Keilson
Author First Name: Suzanne
Additional Author: Modry-Caron
:
Additional Author: Schehr
:
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Women and Girls in Science and Engineering: Understanding the Barriers to Recruitment, Retention and Persistence across the Educational Trajectory

Resource Title: Women and Girls in Science and Engineering: Understanding the Barriers to Recruitment, Retention and Persistence across the Educational Trajectory

Description/Annotation: This literature review focuses on the educational trajectory that girls and women take as they progress through the academic curriculum in the science and engineering disciplines. The three main subject groups under analysis include female undergraduate students, graduate students, and faculty.

Author Last Name: O'Callaghan
Author First Name: Elizabeth
Publication Date: 2006
Publication Title: Journal of Women and Minorities in Science and Engineering
Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Women and Information Technology: Research on underrepresentation

Resource Title: Women and Information Technology: Research on underrepresentation

Description/Annotation: Book deals with why women are dramatically underrepresented in computer science, issues involved in increasing the presence of women in IT, and what can be done to rectify the situation. Each section begins with an overview of the literature on current research in the field, followed by individual studies. The first section investigates the relationship between gender and information technology among preteens and adolescents; the second section deals with higher education; the final section, on pathways into the IT workforce.

Author Last Name: Cohoon (ed.)

Author First Name: J. McGrath

Additional Author: Aspray (ed.)

: William

Publisher: MIT Press

Publication Date: 2006

Source: MIT

Source Type: Partial text, Table of Contents, Available for sale

Resource Type Categories: [Book](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Women and Leadership: Preparing (Female) Students for the Leadership Challenge

Resource Title: Women and Leadership: Preparing (Female) Students for the Leadership Challenge

Description/Annotation: The paper focuses on helping students become aware of common supervisory situations they may encounter in the workplace. To help prepare students for their future careers, the paper identifies strategies students can use to deal with different supervisory situations, with emphasis on women supervisory concerns.

Author Last Name: Ocon

Author First Name: Ralph

Additional Author: McFarlane

: Opal

Publication Date: 2010

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development](#)

Women and Men Faculty in Academic Science and Engineering: Social-Organizational Indicators and Implications

Resource Title: Women and Men Faculty in Academic Science and Engineering: Social-Organizational Indicators and Implications

Description/Annotation: Using survey data of women and men faculty in doctoral-granting departments in computer science, engineering, and science fields in nine research university, this article depicts four key social-organizational features of work, as reported by women and men respondents: frequency of speaking with faculty in home unit, ratings of position and department, characterizations of departmental climate, and levels of work-family interference.

Author Last Name: Fox

Author First Name: Mary Frank

Publication Date: 2010
Page Numbers: 997-1012
Publication Title: American Behavioral Scientist
Volume: 53
Issue: 7
Source: Sage
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Women and Men on the Engineering Path: A Model for Analyses of Undergraduate Careers

Resource Title: Women and Men on the Engineering Path: A Model for Analyses of Undergraduate Careers

Description/Annotation: National study of undergraduate students using college transcripts assessing the arc of their study paths. Identifies decision thresholds related to retention and factors affecting those decisions.

Author Last Name: Adelman

Author First Name: Clifford

Publisher: U. S. Department of Education, Department of Science Educations

Publisher Location: Washington, D.C.

Publication Date: 1998

Page Numbers: 119

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Women and Minorities in Science and Engineering: A Life Sequence Analysis

Resource Title: Women and Minorities in Science and Engineering: A Life Sequence Analysis

Description/Annotation: Reviews literature and discusses results of two national surveys to identify factors influencing participation of women and minorities in science and engineering.

Author Last Name: Leslie

Author First Name: Larry L.

Additional Author: McClure

: Gregory T.

Additional Author: Daxaca

: Ronald L.

Publisher: The Ohio State University Press

Publisher Location: Columbus, Ohio

Publication Date: 1998

Page Numbers: 239-276

Publication Title: Journal of Higher Education

Volume: 69

Issue: 3

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women And Minorities In Science, Technology, Engineering And Mathematics Upping the Numbers

Resource Title: Women And Minorities In Science, Technology, Engineering And Mathematics Upping the Numbers

Description/Annotation: This work indicates that some developed countries face a shortage of skilled workers in STEM fields. The contributors discuss the nature and size of the problem and show why increasing the number of women and minorities in STEM industries is vital. They also provide reasons for the lack of women and minority interest in working in STEM fields. Issues ‘upstream’ in the schooling and preparation of women and minorities and ‘downstream’ in their work experiences and career challenges are also considered. Finally examples of successful actions are presented. This book presents an organized collection of statistics, research, and best practices relating to the challenges and opportunities of increasing the participation of women in minorities in STEM.

Author Last Name: Burke (ed.)
Author First Name: Ronald J.
Additional Author: Mattis
: Mary C.
Publisher: Edward Elgar Publishing
Publication Date: 2007
Page Numbers: 400
Source: Google Book
Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors » Retention](#) [Career Factors » Retention](#)

Women and Minorities in Science, Technology, Engineering and Mathematics: Upping the Numbers

Resource Title: Women and Minorities in Science, Technology, Engineering and Mathematics: Upping the Numbers

Description/Annotation: This 379-page book combines 14 chapters by diverse authors to discuss the problem of under representation in STEM fields by women and minorities. Two chapters provide a big picture introduction. The next five chapters discuss the experiences of women and minorities in STEM. Three chapters then focus on

building interest in STEM, followed by two chapters each on improving educational and professional experiences.

Author Last Name: Burke (ed.)
Author First Name: Ronald
Additional Author: Mattis (ed.)
:
Mary
Publisher: Edward Elgar Publishing
Publisher Location: Northampton, MA
Publication Date: 2007, Sep 7
Page Numbers: 1-379
Source: Edwar Elgar Publishing
Source Type: Review, Available for sale

Resource Type Categories: Book Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Women and Science Careers: Leaky Pipeline or Gender Filter?

Resource Title: Women and Science Careers: Leaky Pipeline or Gender Filter?

Description/Annotation: This paper explores the broad array of explanations for the absence of women in STEM put forth in the literature of the last 30 years. It is argued that some proposed explanations are without merit and are in fact dangerous, while others do play a part in a complex interaction of factors. It is suggested that the very nature of science may contribute to the removal of women from the "pipeline". Recommendations for reform in science education to address this problem are also provided.

Author Last Name: Blickenstaff
Author First Name: Jacob Clark
Publisher: Taylor & Francis
Publication Date: 2005, Oct
Page Numbers: 369-386

Publication Title: Gender and Education
Volume: 14
Issue: 4
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Women and Science: Excellence and Innovations- Gender Equality in Science

Resource Title: Women and Science: Excellence and Innovations- Gender Equality in Science

Description/Annotation: This 15-page report is a commission staff working document of the European Union. In the report, the progress of various initiatives to increase the representation of women in science in EU member states is discussed. Better monitoring and programs are suggested.

Author Last Name: Commission of the European Communities

Publisher: Commission of the European Communities

Publisher Location: Brussels, Belgium

Publication Date: 2005, Mar 11

Page Numbers: 1-15

Source: European Commission

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Women and the Engineering Profession: The Stereotypical Engineer

Resource Title: Women and the Engineering Profession: The Stereotypical Engineer

Description/Annotation: This paper discusses a survey that was developed In order to determine whether 1st-year college students held perceptions regarding personality traits and probable gender of an engineer. Results indicate that personality traits most often associated with engineers were primarily masculine. Also, engineers were most often expected to be male, especially by the females in this study. Perceived personality traits and the probable gender of engineers were also compared to those of 5 other professions. Possible approaches to begin altering young women's perceptions of personality traits and the probable gender of a stereotypical engineer are discussed.

Author Last Name: Cory

Author First Name: Suzanne N.

Additional Author: Rezale

: Bahman

Publication Date: 2008

Page Numbers: 141-157

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 14

Issue: 2

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM](#)
[Career Interest/Awareness](#) [Cultural Influences](#) » [Stereotype Threat](#)

Women and the Labyrinth of Leadership

Resource Title: Women and the Labyrinth of Leadership

Description/Annotation: In looking at the lack of representation by women in top management, the authors of this article propose a new metaphor to replace the glass ceiling - the labyrinth. Explaining why the proper metaphors are important in understanding and changing

situations, they look at the many ways women have difficulty throughout their careers - not simply at the top when breaking through that last impenetrable barrier, the glass ceiling. The labyrinth represents the many obstacles women encounter, and the authors suggest these barriers be addressed and attacked simultaneously in order to make a significant change in the women progress in their careers. Tactics are proposed for businesses to employ if they truly want more women business leaders. For industry and workforce.

Author Last Name: Eagly
Author First Name: Alice H.
Additional Author: Carli
: Linda L.
Publisher: Harvard Business Press
Publisher Location: Boston, MA
Publication Date: 2007, Sep
Page Numbers: 62-71
Publication Title: Harvard Business Review
Volume: 85
Issue: 9
Source: Harvard Business Review
Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Women and the Public Library: Using Technology, Using the Library

Resource Title: Women and the Public Library: Using Technology, Using the Library
Description/Annotation: The results of a qualitative survey of 184 women library patrons give insight into why and how they use library and information technology and how they learned to use that technology. Women discuss what services they particularly value, including traditional

services like printed books and reference, but also their appreciation and use of the Internet, including the library's Web site and databases. Trends showed that women are still the ones who bring children to the library and encourage their use of books.

Author Last Name: Fidishun
Author First Name: Dolores
Publication Date: 2007
Page Numbers: 328-343
Publication Title: Library Trends
Volume: 56
Issue: 2
Source: Project Muse
Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Individual Beliefs and Behaviors](#) » [Family & Peers](#) [Individual Beliefs and Behaviors](#)

Women and Time to Completion of an Engineering Baccalaureate at Texas A&M University

Resource Title: Women and Time to Completion of an Engineering Baccalaureate at Texas A&M University

Description/Annotation: This paper discusses a preliminary research study on time to completion of the initial set of engineering courses at the Dwight Look College of Engineering at Texas A&M University with data from the 1998 and 1999 first year cohorts. It found that women completed these courses, in significantly less time than their male counterparts.

Author Last Name: Kimball
Author First Name: Jorja
Additional Author: Hobson
:
Margaret
Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Women and Underrepresented Minorities in the IT Workforce

Resource Title: Women and Underrepresented Minorities in the IT Workforce

Description/Annotation: This study examines the composition of the information technology (IT) workforce and focuses on recruitment and retention and how they differ by gender and minority status. Data are from SESTAT, the largest nationally representative sample of college-educated scientists and engineers living in the United States. The data indicate that only about one in three individuals in the IT workforce in 1999 actually had a formal degree in an IT discipline; thus, recruitment from non-IT disciplines plays an important role in determining the size of the IT workforce.

Author Last Name: Levin

Author First Name: Sharon G.

Additional Author: Stephan
: Paula E.

Publication Date: 2005

Volume: 11

Issue: 4

Source: Harvard University

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Employment](#)

Women as the Miner's Canary in Undergraduate Engineering Education

Resource Title: Women as the Miner's Canary in Undergraduate Engineering Education

Description/Annotation: This paper examines the metaphor of the Miner's Canary as it relates to undergraduate women majoring in engineering at a large, Midwestern university. This paper explores evidence that indicates the collective behavior of women majoring in engineering at this institution could be more sensitive earlier to subsequent correlated institutional change. It appears that women's responses are stronger to both positive and negative events at an institution. By using the metaphor of the Miner's Canary in looking at women's behavior at this institution, this paper seeks to establish that women engineering students' collective behavior is a leading indicator of important issues that impact all students in engineering education.

Author Last Name: Holloway

Author First Name: Beth M.

Additional Author: Reed-Rhoads

: Teri

Additional Author: Groll

: Lorie

Publication Date: 2011

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women Don't Ask: The High Cost of Avoiding Negotiation - and Positive Strategies for Change

Resource Title: Women Don't Ask: The High Cost of Avoiding Negotiation - and Positive Strategies for Change

Description/Annotation: 252-page book by Carnegie Mellon University professor Linda Babcock and writer/researcher Sara Laschever asserting that women fall behind men economically because they avoid asking, or negotiating, for what they want. Many studies are offered to show that women's avoidance of negotiation, behavior while negotiating and men's responses to women's negotiations are a function of culture and stereotype but can be changed with training and awareness. Final book chapters offer guidance in suggesting ways that women can approach negotiating for what they want by avoiding intransigent competitive stances and focusing on win-win strategies.

Author Last Name: Babcock

Author First Name: Linda

Additional Author: Laschever

: Sara

Publisher: Bantam Books

Publisher Location: NY

Publication Date: 2007, Mar

Page Numbers: 1-252

Source: Women Don't Ask

Source Type: Author website, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » Negotiation Skills](#) [Career Factors » Professional Development](#)

Women Engineering Students and Self-Efficacy: A Multi-Year, Multi-Institution Study of Women Engineering Student Self-Efficacy

Resource Title: Women Engineering Students and Self-Efficacy: A Multi-Year, Multi-Institution Study of Women Engineering Student Self-Efficacy

Description/Annotation: Multi-year, multi-institution self-efficacy study of female engineering undergraduate students in the U.S. Authors consider impact of classroom and extra-curricular climate on female self-efficacy and feelings of inclusion/sense of community. Includes practice suggestions for educators to help increase retention of underrepresented students in engineering.

Author Last Name: Marra

Author First Name: Rose M.

Additional Author: Rodgers

: Kelly A.

Additional Author: Shen

: Demei

Additional Author: Bogue

: Barbara

Publication Date: 2009, Jan

Page Numbers: 27-38

Publication Title: Journal of Engineering Education

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women Engineering Students' Self-Efficacy Beliefs - The Longitudinal Picture

Resource Title: Women Engineering Students' Self-Efficacy Beliefs - The Longitudinal Picture

Description/Annotation: This paper reports the first longitudinal results of a survey undertaken as part of the National Science Foundation-funded Assessing Women in Engineering (AWE) project. The instrument is designed to measure undergraduate women students' self-efficacy in studying engineering.

Author Last Name: Marra

Author First Name: Rose M.
Additional Author: Schuurman
: Mieke
Additional Author: Moore
: Cherith
Additional Author: Bogue
: Barbara
Publication Date: 2005
Source: ASEE Annual Conference Proceedings
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women Engineering Students' Self-Efficacy Beliefs-The Longitudinal Picture

Resource Title: Women Engineering Students' Self-Efficacy Beliefs-The Longitudinal Picture

Description/Annotation: This paper reports the first longitudinal results of a survey undertaken as part of the National Science Foundation-funded Assessing Women in Engineering (AWE) project. The instrument is designed to measure undergraduate women students' self-efficacy in studying engineering. Self-efficacy is "belief in one's capabilities to organize and execute the sources of action necessary to manage prospective situations". Researchers developed a survey instrument designed to measure self-efficacy in engineering, feelings of inclusion and outcomes expectations, and have collected longitudinal responses from undergraduate women studying engineering at four institutions: Penn State University (PSU), Georgia Institute of Technology (GA Tech), University of Texas – Austin (UT Austin) and Rensselaer Polytechnic Institute (RPI). Funded by NSF GSE under award #0120642.

Author Last Name: Marra

Author First Name: Rose M.
Additional Author: Schuurman
: Mieke
Additional Author: Moore
: Cherith
Additional Author: Brogue
: Barbara
Publication Date: 2005
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Publications by Funder » NSF-HRD-GSE Publications by Funder Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Women Engineers and the Influence of Childhood Technologic Environment

Resource Title: Women Engineers and the Influence of Childhood Technologic Environment

Description/Annotation: This 195-page thesis from a doctoral candidate at Drexel University investigates the influence of female engineers' childhood exposure to engineering concepts on their preparation for an engineering profession. Twelve professional women engineers from various age and racial/ethnic groups were interviewed. Results indicated that the twelve participants had ample access and exposure to engineering concepts during their childhood. The full thesis is available in PDF format.

Author Last Name: Mazdeh
Author First Name: Shahla
Publisher: Thesis
Publication Date: 2011

Page Numbers: 1-195
Source: Drexel University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women engineers in Turkey: professional modernity in a traditional society

Resource Title: Women engineers in Turkey: professional modernity in a traditional society

Description/Annotation: This paper discusses the high percentage of female academics in Turkish engineering and contrasts the truly divergent social (tradition-imposed) and professional (state-imposed) roles of women engineers in Turkey. The discussion is presented in terms of three categories: women as academics, engineers and students in engineering. Some comparisons are also made between the professional status of female engineers in the United States and in Turkey.

Author Last Name: Kalkan

Author First Name: M.

Publication Date: 2002

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women Engineers: Factors and Obstacles Related to the Pursuit of a Degree in Engineering

Resource Title: Women Engineers: Factors and Obstacles Related to the Pursuit of a Degree in Engineering

Description/Annotation: This study sought to advance current women in engineering research by identifying the obstacles and factors related to the pursuit of a degree in engineering by female students. This study addressed the factors that have hindered, motivated, and assisted women who were graduating with a degree in engineering. By studying and understanding the barriers that hinder women in deciding to pursue and in completing a degree in engineering, as well as, the factors that assist and encourage them, we can learn how to break down the barriers and how to facilitate the educational journey of female engineering students. This study gives us valuable insights and created a framework from which high schools, universities, researchers, and female students can directly benefit.

Author Last Name: Cordova-Wentling

Author First Name: Rose Mary

Additional Author: Camacho

: Cristina

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Retention](#)

Women Engineers: Factors and Obstacles Related to the Pursuit of a Degree in Engineering

Resource Title: Women Engineers: Factors and Obstacles Related to the Pursuit of a Degree in Engineering

Description/Annotation: This paper discusses a study that addressed the factors that have hindered, motivated, and assisted women who graduated with a degree in engineering. By studying and understanding the barriers that hinder women in deciding to pursue and in completing a degree in engineering, as well as the factors that assist and

encourage them, we can learn how to break down the barriers and how to facilitate the educational journey of female engineering students.

Author Last Name: Wentling
Author First Name: Rose Mary
Additional Author: Camacho
:
Cristina
Publication Date: 2008
Page Numbers: 83-118
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 1
Source: Begell House
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women Engineers: Preparing Them For The Workplace

Resource Title: Women Engineers: Preparing Them For The Workplace
Description/Annotation: This paper examines the social side of a career in engineering for women and suggests techniques for improving social performance. It discusses reasons for attrition among women engineers, how women engineers view themselves, and how to coach women engineering students to have a more accurate self-perception to counter career dissatisfaction. Retention of women is not only a problem in the technical disciplines, but is also a problem in many other professions.
Author Last Name: Seat
Author First Name: Elaine
Publication Date: 1998

Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women Graduate Students in Mathematics and Physics: Reflections on Success

Resource Title: Women Graduate Students in Mathematics and Physics: Reflections on Success

Description/Annotation: Focus groups were developed among female mathematics and physics graduate students to discuss factors that made them choose to pursue scientific careers.

Author Last Name: Hollenshead

Author First Name: Carol

Additional Author: Younce

: Patricia Soellner

Additional Author: Wenzel

: Stacy A.

Publisher: Begell House

Publisher Location: Redding, CT

Publication Date: 1994, Jan -Mar

Page Numbers: 63-88

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 1

Issue: 1

Source: ERIC

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women in Academia: Engineers Marginalized, MIT Report Concludes

Resource Title:	Women in Academia: Engineers Marginalized, MIT Report Concludes
Description/Annotation:	A repeat report done by MIT School of Engineering that says "MIT is not a hospitable environment" for many women. The article lists some of the steps MIT has taken to alleviate exclusion of women in different areas such as pay inequality yet states that much of the exclusion is unintentional. While this does not make it acceptable, it may make it difficult to address. The importance of the MIT study is that when MIT is used as an example other institutions pay attention. For academics.
Author Last Name:	Lawler
Author First Name:	Andrew
Publisher:	Science
Publisher Location:	New York, NY
Publication Date:	2002, Mar
Page Numbers:	2192
Publication Title:	Science
Volume:	295
Issue:	5563
Source:	AAAS
Source Type:	Abstract

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Women in Academic Leadership: Professional Strategies, Personal Choices (Women in Academe Series)

Resource Title:	Women in Academic Leadership: Professional Strategies, Personal Choices (Women in Academe Series)
Description/Annotation:	A collection of essays providing insight into the rewards and challenges of being a woman in executive administration roles in higher education. Offers strategies and advice for women pursuing these leadership roles, including addressing gender and race issues.
Author Last Name:	Dean (Ed.)
Author First Name:	Diane R.
Additional Author:	Bracken (Ed.)
:	Susan J.
Additional Author:	Allen (Ed.)
:	Jeanie K.
Publisher:	Stylus Publishing
Publication Date:	Nov. 2009
Page Numbers:	260 pgs
Source Type:	Book

Women in Biomedical Engineering: Current Status and a Review of Potential Strategies for Improving Diversity

Resource Title:	Women in Biomedical Engineering: Current Status and a Review of Potential Strategies for Improving Diversity
Description/Annotation:	This paper reviews the barriers to women's success in biomedical engineering and suggest strategies for overcoming these obstacles, i.e., for fixing the leaky pipeline.
Author Last Name:	Chesler
Author First Name:	Naomi

Additional Author: Richards-Kortum
:
Additional Author: Bhatia
:
Additional Author: Barabino
:
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Women in Civil Engineering and Science: It's Time for Recognition and Promotion

Resource Title: Women in Civil Engineering and Science: It's Time for Recognition and Promotion

Description/Annotation: This paper takes a look at inevitable changes in the attractiveness of the engineering profession; studies societal help for working women in civil engineering and science; and attempts to raise what should be done in order to avoid the loss of experienced and advanced women.

Author Last Name: Khazanet

Author First Name: V.L.

Publication Date: 1996, Apr

Page Numbers: 65-68

Publication Title: Journal of Professional Issues in Engineering Education and Practice

Volume: 122

Issue: 2

Source: ASCE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Women in Engineering and Technology Program at Purdue University North Central

Resource Title: Women in Engineering and Technology Program at Purdue University North Central

Description/Annotation: This paper discusses a mentorship program for Women in Engineering and Technology at Purdue University North Central which empowers women in technical fields. This paper explains the steps, vision, direction, boundaries, benefits and ways in which to get such program started. It also assesses the tangibles and intangibles from such a mentoring program.

Author Last Name: Garcia-Saenz

Author First Name: Martha

Additional Author: Tritle

: Madonna

Publication Date: 2003

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Mentoring](#)

Women in Engineering Career Day Conference: A Recruitment Tool for Massachusetts High School Girls

Resource Title: Women in Engineering Career Day Conference: A Recruitment Tool for Massachusetts High School Girls

Description/Annotation: In an effort to recruit and retain young women within the field of engineering the Women in Engineering Program and the Society of Women Engineers (SWE) UMass Amherst Collegiate section conducts an annual career day conference. Attracting over 250 female 9-12th graders, this program provides young girls with the opportunity to explore engineering as a possible academic track and or career choice by providing hands on team projects, interactive activities, display tables from industry and presentations by female engineers. This paper discusses accomplishments and challenges faced by institutions seeking to outreach to underrepresented constituencies.

Author Last Name: Middleton
Author First Name: Regina
Additional Author: Perdomo
: Shelly
Publication Date: 2008
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Outreach Programs](#)

Women in Engineering Division of the American Society for Engineering Education (ASEE-WIED)

Resource Title: Women in Engineering Division of the American Society for Engineering Education (ASEE-WIED)

Description/Annotation: The objective of the Women in Engineering Division (WIED) of the American Society for Engineering Education is to study, promote and improve the role of women in the professions of engineering and engineering technology through collection of data, publications, presentations at appropriate meetings, sponsorship of conferences, and similar activities. We welcome male and female members with interest in promoting these goals.

Web site Link: [Link to Resource](#)

More:

WIED Mission:

This division works to increase the participation of women at all levels of engineering education and the profession. The division is concerned with programs to improve preparation, recruitment and retention of women students at undergraduate and graduate levels in the science, technology, engineering, and mathematics, (STEM) fields, with the need to increase the number of women STEM faculty, and with the re-entry of women into the profession. The division sponsors sessions at the ASEE Annual Conference and administers the WIED Awards.

WIED Vision Statement:

WIED will serve as the premier multidisciplinary division for individuals and organizations committed to supporting the recruitment, retention, and advancement of women in engineering and engineering technology education.

To realize its vision, WIED will:

- Enhance services to its members
- Work with educational institutions and industry to improve engineering and engineering technology education for women and promote faculty development
- Provide information and research on women in engineering educational initiatives
- Facilitate productive collaborations in matters pertaining to women in engineering education
- Promote the value of gender diversity within the engineering profession and the value of the engineering profession to women in order to increase their participation and success
- Increase membership in WIED and serve as an advocate for making women a priority within ASEE, or order to more completely promote their success.

Resources:

See more information including minutes from meetings on the web site (<http://wied.asee.org>)

Site Access Details:

This site is publicly accessible.

Contact Name:

The current Chair of WIED can be found on the web site along with contact information

Last Update Date:

July 13, 2013

Resource Type Categories: Website/Portal Topical Categories: Career Factors Diversity Orgs & Pgms for Women and Girls Educational Factors Educational Factors » Retention Career Factors » Retention Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits

Women in Engineering Education in Turkey

Resource Title: Women in Engineering Education in Turkey

Description/Annotation: The purpose of this paper is to examine the factors influencing the female participation in engineering education in Turkey as a developing country in order to contribute to the research on gender issue. An in-depth interview was carried out with the freshman students attending a course given by one of the authors in an engineering department of Istanbul Technical University. This interview helped to design a questionnaire including open and closed end questions. The findings of this survey show that male students believe by 44.7% (only 22.7% for girls) that gender is important while deciding about profession. The reason they give is “the belief that some engineering fields necessitate some physical capabilities”. Whereas the reason the girls give is “specific working conditions of some engineering fields”.

Author Last Name: Ozkale

Author First Name: Lerzan

Additional Author: Kuskü

: Fatma

Additional Author: Saglamer

: Gulsun

Publication Date: 2004

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Women in Engineering in Bangladesh and the USA: A Comparative Study

Resource Title: Women in Engineering in Bangladesh and the USA: A Comparative Study

Description/Annotation: This paper focuses on the comparison of women in engineering in two countries which are miles apart not only geographically but also in social and cultural values. While progress is being made in encouraging women in engineering and technical fields, the progress rate has been very slow. Data from surveys indicate that the factors affecting recruitment and retention of women in engineering are very similar in both countries.

Author Last Name: Jahan

Author First Name: Kauser

Additional Author: Keil

: Zenaida O.

Additional Author: Hartman

: Harriet

Additional Author: Choudhury

: J.R.

Publication Date: 1998

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Cultural Influences](#) » [Stereotype Threat](#)

Women in engineering in Turkey - a large scale quantitative and qualitative examination

Resource Title: Women in engineering in Turkey - a large scale quantitative and qualitative examination

Description/Annotation: This article discusses the recent shift in Turkey from virtually no female participation in engineering to across-the-board proportions that dominate other industrialised countries within the 76 years of the founding of the Turkish Republic. This paper

describes the largest known direct cross-sectional study of women in engineering in Turkey with over 800 participants. The study shows that women in Turkey choose engineering mainly because they enjoy the underlying mathematics and science. There is no gender bias on the part of teachers or fellow students; however, women students believe that they have fewer opportunities than male peers and acutely feel the lack of role models.

Author Last Name: Smith
Author First Name: Alice E.
Additional Author: Dengiz
: Berna
Publication Date: 2009
Page Numbers: 1-13
Publication Title: European Journal of Engineering Education
Source: Auburn University
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) »
[Retention](#)

Women in Engineering Programs in the United States and Korea: Making Best Practices Even Better

Resource Title: Women in Engineering Programs in the United States and Korea: Making Best Practices Even Better
Description/Annotation: Paper contrasts western and South Korean Women in Engineering (WIE) programs using a U.S. based assessment checklist.
Author Last Name: Freeman
Author First Name: Amy L.
Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)
Publication Date: 2008
Page Numbers: 11

Source: WEPAN
Source Type: Full Text

Resource Type Categories: [Articles/Reports » Conference Papers/Proceedings Topical](#)
Categories: [Diversity Orgs & Pgms for Women and Girls](#)[Diversity Orgs & Pgms for Women and Girls » International](#)

Women in Engineering Scholars Program

Resource Title: Women in Engineering Scholars Program

Description/Annotation: This paper discusses the National Science Foundation-funded Women in Engineering Scholars program, designed to encourage more women to pursue graduate degrees in engineering. The Scholars Program is administered through the Women in Applied Science and Engineering (WISE) Program, in the College of Engineering and Applied Science (CEAS) at Arizona State University. The Scholars program aims to increase participants' self-efficacy for attending graduate programs in engineering and to increase the visibility of women in graduate programs, thereby helping to create a more gender-friendly environment.

Author Last Name: White

Author First Name: Mary Aleta

Additional Author: Blaisdell
: Stephanie

Additional Author: Anderson-Rowland
: Mary

Publication Date: 1998

Publication Title: ASEE Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings Topical](#)
Categories: [Educational Factors](#) [Educational Factors » Formal Academic Preparation](#)

Women in Engineering Technology: Where are they?

Resource Title:	Women in Engineering Technology: Where are they?
Description/Annotation:	This paper discusses a student-led initiative implemented at Oregon Institute of Technology to remedy Oregon Tech's lag of women behind men in enrollment in engineering technology with a diversity action grant obtained by the American Society of Mechanical Engineers (ASME) student club. The ASME students, working in conjunction with the Society of Women Engineers (SWE) club, developed and administered a one-day conference designed specifically for female high school students regarding engineering careers. A successful program resulted that has helped to focus attention on possible reasons for the disparity of women in engineering technology. In addition, from the collaborative effort of the ASME and SWE clubs, strategies have been conceived for the recruitment and retention of women in engineering programs at Oregon Tech.
Author Last Name:	Brower
Author First Name:	Timothy
Additional Author:	Corniachione
:	Harriet
Publication Date:	2001
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical
Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors »
Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness

Women in Engineering: 2011 Literature Review

Resource Title:	Women in Engineering: 2011 Literature Review
Description/Annotation:	Literature review assessing major themes in 2011 research-based articles related to women in engineering. Authors highlight a number of research projects on various aspects of the issues

women face, including several major contributions involving large data sets and research projects of substantial ambition. Article includes extensive bibliography from the past year's publications.

Author Last Name: Meiksins
Author First Name: Peter
Additional Author: Layne
:
Additional Author: Hall
:
Molly
Publisher: Society of Women Engineers (SWE)
Publisher Location: Chicago, IL
Publication Date: 2012
Page Numbers: 54-79
Publication Title: SWE Magazine
Volume: 2012
Issue: Spring
Source: SWE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Women in Engineering: A Review of the 2003 Literature

Resource Title: Women in Engineering: A Review of the 2003 Literature
Description/Annotation: Society of Women Engineers (SWE) literature review assessing major themes in 2003 research-based articles related to women in engineering. Themes include: women engineers in the news; conferences & organizations; eminent women in engineering; gender differences; and the academic engineering pipeline. Article includes extensive bibliography from 2003 publications.

Author Last Name: Frehill
Author First Name: Lisa M.
Additional Author: Benton-Speyers
:
Additional Author: Cannavale
:
Publisher: Society of Women Engineers (SWE)
Publisher Location: Chicago, IL
Publication Date: 2004
Page Numbers: 20-39
Publication Title: SWE Magazine
Volume: 2004
Issue: Summer
Source: SWE
Source Type: Full Text PDF

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Professional Development Educational Factors](#) » [Retention Career Factors](#) » [Retention](#)

Women in Engineering: A Review of the 2004 Literature

Resource Title: Women in Engineering: A Review of the 2004 Literature
Description/Annotation: Society of Women Engineers (SWE) literature review assessing major themes in 2004 research-based articles related to women in engineering. Articles and dissertations reviewed cover subjects including girls' science education; college science experiences and persistence; recruitment and retention in academia; mentoring; and gender, race, and ethnicity issues. Article includes extensive bibliography from 2004 publications.
Author Last Name: Frehill
Author First Name: Lisa M.

Additional Author: Ketcham
:
Additional Author: Jesser-Cannavale
:
Publisher: Society of Women Engineers (SWE)
Publisher Location: Chicago, IL
Publication Date: 2005
Page Numbers: 22-47
Publication Title: SWE Magazine
Volume: 2005
Issue: Summer
Source: SWE
Source Type: Full Text PDF

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Career Factors](#)[Educational Factors Career Factors](#) » [Mentoring Educational Factors](#) » [Retention Career Factors](#) » [Retention](#)

Women In Engineering: A Review of the 2005 Literature

Resource Title: Women In Engineering: A Review of the 2005 Literature

Description/Annotation: Literature review including 224 primarily peer-reviewed articles, dissertation abstracts, and books, excluding the Journal of Women and Minorities in Science and Engineering. Review highlights seminal works and addresses events of the year, such as Harvard President Lawrence Summers inflammatory comments on the under representation of women in science and engineering. Topics include the impact of parenthood on working women, including evolution of the "mommy track" and an assessment of factors influencing who becomes an engineer such as consideration of a digital divide, academic preparation and mentoring.

Author Last Name: Frehill

Author First Name: Lisa

Additional Author: Javurek-Humig
:
Additional Author: Jeser-Cannavale
:
Publisher: Society of Women Engineers
Publisher Location: Chicago, IL
Publication Date: 2006, Summer
Page Numbers: 1-18
Publication Title: SWE Magazine
Volume: 52
Issue: 3
Source: SWE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Family Career Factors](#) » [Family Issues Career Factors](#) » [Mentoring Educational Factors](#) » [Retention](#)

Women in Engineering: A Review of the 2006 Literature

Resource Title: Women in Engineering: A Review of the 2006 Literature

Description/Annotation: Literature review including 168 primarily peer-reviewed research articles from engineering, education, psychology, management, sociology, science and technology studies, women's and gender studies, and general social sciences disciplines. Doctoral dissertations and books are excluded from the 2006 literature review. Review highlights topics such as mentoring, K-12 education, recruitment and persistence in undergraduate engineering programs, global aspects of women in engineering, and women's experiences in engineering graduate school, the academic workforce, and the engineering and IT workforce.

Author Last Name: Frehill

Author First Name: Lisa M.

Additional Author: Di Fabio
:
Additional Author: Layne
:
Additional Author: Johnson
:
Additional Author: Ane Turner
Additional Author: Hood
:
Additional Author: Sarah
Publisher: Society of Women Engineers
Publication Date: 2007, Summer
Page Numbers: 1-24
Publication Title: SWE Magazine
Source: SWE
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Individual Beliefs and Behaviors Educational Factors](#) » [Retention Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women in Engineering: A Review of the 2007 Literature

Resource Title: Women in Engineering: A Review of the 2007 Literature

Description/Annotation: Literature review including 123 primarily peer-reviewed cross-disciplinary articles. Review highlights data and trends, and workplace issues such as the gender pay gap, work-life balance, the glass ceiling, women in leadership and sexual harassment.

Author Last Name: Frehill

Author First Name: Lisa

Additional Author: Di Fabio

: Nicole

Additional Author: Hill

: Susan

Additional Author: Traeger

: Karen

Additional Author: Buono

: Jessica

Publisher: Society of Women Engineers

Publisher Location: Chicago, IL

Publication Date: 2008, Summer

Page Numbers: 1 - 30

Publication Title: SWE Magazine

Volume: 54

Issue: 3

Source: SWE

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Educational Factors Educational Factors](#) » [Formal Academic Preparation Career Factors](#) » [Leadership & Management Career Factors](#) » [Professional Development Career Factors](#) » [Stereotype Threat](#)

Women in Engineering: A Review of the 2008 Literature

Resource Title:	Women in Engineering: A Review of the 2008 Literature
Description/Annotation:	Literature review including 300 research-based articles related to women in engineering and women in the workforce. Topics include work-life balance, engineering career pathways, workforce issues, and the evolution of mentoring relationships and tools.
Author Last Name:	Frehill
Author First Name:	Lisa M.
Additional Author:	Brandi
:	Carolyn
Additional Author:	Di Fabio
:	Nicole
Additional Author:	Keegan
:	Katelyn
Additional Author:	Hill
:	Susan T.
Publisher:	Society of Women Engineers
Publisher Location:	Chicago, IL
Publication Date:	2009, Summer
Page Numbers:	28-56
Publication Title:	SWE Magazine
Source:	SWE
Source Type:	Full text (via online magazine reader)

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Career Factors](#) » [Family Issues Career Factors](#) » [Mentoring Career Factors](#) » [Retention](#)

Women in Engineering: A Review of the 2009 Literature

Resource Title: Women in Engineering: A Review of the 2009 Literature

Description/Annotation: Literature review assessing major themes in 2009 research-based articles related to women in engineering. Partial list of topics include an increased focus on effecting the K-12 pipeline, effective ways to talk to and engage with students, changing teacher perceptions about engineering, the significance of self-efficacy and coping mechanisms, the development and impact of cultural gender schemas, the impact of sexual politics and gender-typing in the workplace, and success factors for women in engineering programs. Includes lists of significant conferences, outstanding women in engineering, and women engineering deans as well as summary statistics by discipline and race/ethnicity.

Author Last Name: Frehill

Author First Name: Lisa M.

Additional Author: Brandi

: Carolyn

Additional Author: Lain

: M. Amanda

Additional Author: Frampton

: Andrew

Publisher: Society of Women Engineers

Publisher Location: Chicago, IL

Publication Date: 2010, Summer

Page Numbers: 48-78

Publication Title: SWE Magazine

Source: SWE

Source Type: Full text (via online magazine reader)

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) Topical Categories: [Career Factors Educational Factors Career Factors](#) » [Hiring Practices Career Factors](#) » [Leadership & Management Career Factors](#) » [Mentoring Career Factors](#) » [Professional Development Educational Factors](#) » [Retention Career Factors](#) » [Retention](#)

Women in Engineering: A Review of the 2013 Literature

Resource Title: Women in Engineering: A Review of the 2013 Literature

Description/Annotation: 2013 saw the publication of a large quantity of scholarly work relevant to the situation of women in engineering. Our review of the literature covered well over 100 publications, including books, major reports, and journal articles in publications representing a half dozen or more disciplines, including sociology, psychology, education, and business, to name a few. We searched for articles by examining major research databases and more than 70 journals that publish articles on gender and engineering. As always, the studies varied tremendously in quality and rigor; they also varied in their methodological approach, from complex statistical analyses of large data sets to interpretive studies of qualitative data

Author Last Name: Meiksens

Author First Name: Peter

Additional Author: Layne
: Peggy

Additional Author: Camargo
: Elsa

Additional Author: Snead
: Katie

Publisher: Society of Women Engineers

Publisher Location: Chicago IL

Publication Date: Spring 2014

Publication Title: SWE Magazine

Issue: Spring

Resource Type Categories: [Articles/Reports](#) » [Literature Reviews](#) [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Educational Factors](#)

Women in Engineering: An Untapped Resource

Resource Title: Women in Engineering: An Untapped Resource

Description/Annotation: This study was done over four phases including gathering human resources data, focus groups, interviews, and strategy sessions over

30 corporations employing engineers. Some of the obstacles for women engineers were examined such as the dilemma of being a woman and an engineer, paternalistic attitudes in the workplace, a lack of role models, and a lack of networking opportunities. Although these problems exist in other industries for women, the engineering field has such a low percentage of women that the effects are felt more. For industry and the workforce.

Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 1992, Jan
Page Numbers: 1-78
Source: Catalyst
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Women in Engineering: Gender, Power, and Workplace Culture

Resource Title: Women in Engineering: Gender, Power, and Workplace Culture
Description/Annotation: A book reporting how the high tech revolution of the 1980s affected occupations of both men and women in engineering. As women entered the engineering industry, what happened to their status in the workplace and also within the family? A collaboration between two researchers, one studying sex segregation of occupations, and the other studying power within a professional engineering environment. Useful as historical background for those investigating gender roles in the workplace over time.
Author Last Name: McIlwee
Author First Name: Judith S.
Additional Author: Robinson
: J. Gregg
Publisher: State University of New York (SUNY) Press

Publisher Location: Albany, NY
Publication Date: 1992
Page Numbers: 1-264
Source: SUNY Series in Science, Technology, and Society
Database Name: Google Book Search
Source Type: Partial text, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#)

Women in Engineering: Pioneers and Trailblazers

Resource Title: Women in Engineering: Pioneers and Trailblazers
Description/Annotation: This anthology contains historical overviews of women's experiences in engineering in the United States from the late nineteenth through twentieth centuries and profiles of a dozen pioneering women engineers including Emily Roebling, Ellen Swallow Richards, Kate Gleason, Edith Clarke, and Katherine Stinson.
Author Last Name: Layne
Author First Name: Margaret
Publisher: ASCE Press
Publisher Location: Reston, VA USA
Publication Date: 2009
Source: ASCE
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Leadership & Management](#)

Women in Engineering: Professional Life

Resource Title: Women in Engineering: Professional Life

Description/Annotation: This anthology contains 16 selections from the 1920s through the early 21st century analyzing the experiences of women in engineering in the United States, including reports from the Women's Bureau of the U.S. Department of Labor, early career guidance materials, opinion pieces from the 1960s, '70s, and '80s, and social science research and analyses of the gendered construction of engineering as a profession.

Author Last Name: Layne

Author First Name: Margaret

Publisher: ASCE Press

Publisher Location: Reston, VA USA

Publication Date: 2009

Source: ASCE

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Career Factors](#) » [Employment](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Professional Development](#) [Cultural Influences](#) » [Stereotype Threat](#)

Women in engineering: Statistical analysis of ACT data and proposed procedure to reverse trend

Resource Title: Women in engineering: Statistical analysis of ACT data and proposed procedure to reverse trend

Description/Annotation: This paper analyzes historical ACT data over a 30-year span and correlates gender differences with ACT scores and expressed interest in STEM (Science, Technology, Engineering, and Math) related college majors. Results show that there is a significant discrepancy between the number of men and women students who expressed interest in engineering majors. The data also show that social influences such as the emergence of computer fields including computer gaming and the dot.com era have profound influence in students' interest in STEM fields. The paper highlights ongoing efforts to share data and work with high school counselors in an effort to help students identify more realistic career options or to timely target students for effective math remediation and help encourage increased participation in STEM majors and careers.

Author Last Name: Iskander
Author First Name: T.
Additional Author: Gore
:
Additional Author: Bergerson
:
Additional Author: Furse
:
Publisher: IEEE
Publication Date: 2011, Jul
Page Numbers: 1409-1412
Publication Title: Proceedings from 2011 IEEE International Symposium on Antennas and Propagation
Source: IEEE
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) »
[STEM Career Interest/Awareness Educational Factors](#) » [Stereotype Threat on Testing](#)

Women in Graduate Engineering: Is Differential Dropout a Factor in Their Underrepresentation Among Engineering Doctorates?

Resource Title: Women in Graduate Engineering: Is Differential Dropout a Factor in Their Underrepresentation Among Engineering Doctorates?

Description/Annotation: This article details a study which examines factors associated with enrollment and degree completion of female and male students in graduate engineering programs at a state university between 1990 and 2004. According to the study, women comprised 14% of graduate engineering students, but were as likely as men to complete doctoral degrees when factors associated with graduation were considered. Among U.S. citizens, women had higher rates of degree completion than men, while the opposite was observed for foreign nationals.

Author Last Name: Hosoi
Author First Name: S. Aki
Additional Author: Canetto
:
Silvia Sara
Publisher: Begell House, Inc
Publication Date: 2011
Page Numbers: 11-27
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 1
Source: Begell House
Source Type: Abstract/Available for Sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Women in Health Care & Bioscience Leadership State of the Knowledge Report: Bioscience, Academic Medicine, and Nursing

Resource Title: Women in Health Care & Bioscience Leadership State of the Knowledge Report: Bioscience, Academic Medicine, and Nursing

Description/Annotation: This 31 page report examines women's representation in bioscience and healthcare, and compares it to women in the academic sciences field. The report is divided into four parts: gender differences in the scientific pipeline (education), gender gaps in the workforce, gender differences in career paths of academic research careers, and gender differences in nursing. For women in healthcare and bioscience teaching and industry.

Author Last Name: Joy
Author First Name: Lois
Publisher: Catalyst
Publisher Location: New York, NY

Publication Date: 2008, Mar
Page Numbers: 1-31
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Women in Industrial Engineering: Stereotypes, Persistence, and Perspectives

Resource Title: Women in Industrial Engineering: Stereotypes, Persistence, and Perspectives

Description/Annotation: This research interrogates prevailing assumptions about industrial engineering to explore why undergraduate women are drawn to industrial engineering over other engineering majors. Results indicate that industrial engineering is the only engineering major that gains women and men from the third semester through six-year graduation and among all race-gender combinations (except Black men). Women in focus groups reveal that they are drawn to IE for a myriad of social factors including: warmth, flexibility, a sense it is more feminine, and career opportunities, among others. Content analysis of Web sites reveals that IE emphasizes collegiality and leadership opportunities as intrinsic to the discipline. Funded by NSF GSE under award #0734085.

Author Last Name: Brawner

Author First Name: Catherine E.

Additional Author: Camacho

: Michelle M.

Additional Author: Lord

: Susan M.

Additional Author: Long

: Russell A.

Additional Author: Ohland

: Matthew W.

Publication Date: 2012, Apr
Page Numbers: 288-318
Publication Title: Journal of Engineering Education
Volume: 101
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women in IT: The Facts

Resource Title: Women in IT: The Facts
Description/Annotation: Report discusses predicted shortage of technology talent by 2016 and issues with businesses recruiting and retaining female workers. Chapters include executive summary of the business case, women's current participation in technology, advancement barriers and how to address those barriers. Findings include the significance of supervisory relationships in exacerbating or remedying barriers and the significance of establishing an accountable diversity committee.
Author Last Name: Ashcraft
Author First Name: Catherine
Additional Author: Blithe
: Sarah
Publisher: National Center for Women and Information Technology (NCWIT)
Publisher Location: Boulder, CO
Publication Date: 2009
Page Numbers: 52
Source: NCWIT

Source Type: Full text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors Career Factors » Employment Career Factors » Retention](#)

Women in Male-Dominated Career and Technical Education Programs at Community Colleges: Barriers to Participation and Success

Resource Title: Women in Male-Dominated Career and Technical Education Programs at Community Colleges: Barriers to Participation and Success

Description/Annotation: Using interviews with women in traditionally male-dominated career and technical education, this study examines the experiences of women in career and technical education (CTE) in community colleges, and concludes that women students experience a lack of emotional and institutional support and gender bias in the classroom. The female students find a success by maintaining a sense of resilience despite the discrimination. Implications of research and practice are included.

Author Last Name: Lester

Author First Name: Jaime

Publication Date: 2010

Page Numbers: 51-66

Publication Title: Journal of Women and Minorities in Science and Engineering

Volume: 16

Issue: 1

Source: Begell House

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports » Journal Articles](#) Topical Categories: [Educational Factors » Academic & Social Climate Educational Factors Educational Factors » Retention](#)

Women in Mathematics: Examining the Hidden Barriers that Gender Stereotypes can Impose

Resource Title:	Women in Mathematics: Examining the Hidden Barriers that Gender Stereotypes can Impose
Description/Annotation:	A 25-page chapter discussing gender stereotypes as barriers to women's full participation in mathematics, engineering, and physical sciences. Examines the formation of stereotypes, the theory of stereotype threat, the importance of identification with a particular field of study and the difficulty that stereotypes can cause, and mediators of stereotype threat. Also describes and evaluates situational interventions and personal interventions (self-affirmation, individuation, activation of alternative groups identities) to address stereotype threat in academia and occupations, and discusses individual variation in susceptibility and response to stereotype threat.
Author Last Name:	Steele
Author First Name:	Jennifer R.
Additional Author:	Reisz
:	Leah
Additional Author:	Williams
:	Amanda
Additional Author:	Kawakami
:	Kerry
Publisher:	Edward Elgar Publishing
Publisher Location:	Cheltenham, UK
Publication Date:	2007
Page Numbers:	159-183
Publication Title:	
Database Name:	Google Book Search
Source Type:	Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences » Stereotype Threat](#)

Women in Nanotechnology (WIN): A Mentoring Case Study for Students in Community Colleges in the Chicago Region

Resource Title: Women in Nanotechnology (WIN): A Mentoring Case Study for Students in Community Colleges in the Chicago Region

Description/Annotation: The UIC Women in Nanotechnology (WIN) project supports community college students interested in nanoscale science and technology careers. This presentation will present progress towards achieving the recruitment and retention short-term goals. In addition recommendations from student participants, mentors, and program coordinators are provided for future improvements or program replication.

Author Last Name: Shirk

Author First Name: Sarah Harlow

Additional Author: Arreola
:
Veronica

Additional Author: Khare
:
Manorama M.

Publisher: WEPAN (Proc. of the 2011 WEPAN National Conference)

Publication Date: 2011

Source: WEPAN

Source Type: Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors Educational Factors Career Factors](#) » [Mentoring Educational Factors](#) » [Retention](#)

Women in Physics in the United States: A Progress Report

Resource Title: Women in Physics in the United States: A Progress Report

Description/Annotation: Two page summary of the status of women in physics that relates areas of concern/improvement as reflected in statistics. For example, less than one-fourth of physics bachelor's degrees are

awarded to women while they make up nearly half of high school physics students. Despite their high participation in high school physics they are a smaller percentage of the group of students that takes the Advanced Placement (AP) physics exam. And, women are approximately twice as likely to have a spouse who is employed full time meaning that the dual technical career has a disproportionate effect on women pursuing careers in physics.

Author Last Name: Kimberly S.
Author First Name: Budil
Additional Author: Karen E.
:
Additional Author: Theda
:
Additional Author: Melissa
:
Additional Author: Beverly K.
:
Publisher: American Institute of Physics
Publisher Location: Melville, NY
Publication Date: 2005
Page Numbers: 2
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Cultural Influences Educational Factors Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Stereotype Threat Educational Factors](#) » [Stereotype Threat on Testing](#)

Women in physics: A tale of limits

Resource Title: Women in physics: A tale of limits
Description/Annotation: This 4-page article documents results from the Global Survey of Physicists of 15,000 physicists worldwide, carried out by the American Institute of Physics (AIP). The article summarizes significant differences between men and women physicists in access to career-advancing resources and opportunities.

According to the article, the low representation of women in physics is a well-known problem, but differences in the resources and opportunities men and women encounter comprise another challenge for the physics community. The article, available in PDF format, includes tables and figures on resources and career progress.

Author Last Name: Ivie
Author First Name: Rachel
Additional Author: Tesfaye
:
Casey Langer
Publisher: American Institute of Physics (AIP)
Publisher Location: Melville, NY
Publication Date: 2012
Page Numbers: 47-50
Publication Title: Physics Today
Volume: 65
Issue: 2
Source: AIP
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Women in Power: Networking On & Off Campus

Resource Title: Women in Power: Networking On & Off Campus
Description/Annotation: This paper discusses networking opportunities for women faculty both on their home campuses as well as at technical meetings. Women faculty in power engineering from three different schools, Mississippi State, Texas A&M and Missouri-Rolla, discuss their activities on campus including both formal and informal networking opportunities for women faculty. Additionally they discuss how activities at IEEE Power Engineering Society meetings provide them with off-campus networking opportunities in their specific technical area. The paper outlines how these

networking groups started, suggestions for others and lessons learned.

Author Last Name: Schulz
Author First Name: Noel N.
Additional Author: Butler-Purry
:
Additional Author: Karen
Additional Author: Crow
:
Additional Author: Mariesa
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Women in Science & Engineering Leadership Institute (WISELI) at University of Wisconsin-Madison

Resource Title: Women in Science & Engineering Leadership Institute (WISELI) at University of Wisconsin-Madison

Description/Annotation: The Women in Science & Engineering Leadership Institute (WISELI) is a research center at the University of Wisconsin-Madison created in 2002. WISELI disseminates “best practices” in gender equity programming and measurement. The long-term goal of WISELI is to have the gender of the faculty, chairs, and deans reflect the gender of the student body at UW-Madison.

Web site Link: [Link to Resource](#)

Logo:

More: WISELI is a visible, campus-wide entity, endorsed by top-level administrators, which uses UW-Madison as a "living laboratory" to study gender equity for women in science and engineering,

implement solutions, and provide methods and analyses to measure indicators of success.

Resources: Site resources include:

- WISELI Programs
 - Grants
 - Workshops
 - Research
 - Courses
 - [Lecture Series](#)
- Gender Equity Programs
- Brochures and Booklets
- Survey Instruments
- Interview Protocols
- [Reports and Publications](#) Site

Access Details: This site is publicly accessible.

Partners and Funding: WISELI was formed in 2002 with funding from the National Science Foundation's ADVANCE: Institutional Transformation program. The center is currently funded with a combination of: contributions from eight UW-Madison schools, colleges, or units; grant funding from national scientific funding agencies; gift funds; and funds earned through WISELI's income-generating activities.

Contact E-mail: wiseli@engr.wisc.edu

Last Update Date: June 10, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs](#)

Women in Science and Engineering (WISE) Week: A Career Exploration Program for 11th-Grade Women

Resource Title: Women in Science and Engineering (WISE) Week: A Career Exploration Program for 11th-Grade Women

Description/Annotation: One week summer program offered by WISE Institute to encourage high school girls to pursue science and engineering careers at Penn State. Workshops conducted by faculty, graduate and undergraduate students.

Author Last Name: Acar

Author First Name: Nuket

Additional Author: Rung

: Catherine
Additional Author: Wakhungu
: Judi
Publisher: WEPAN (Proc. of the 2000 WEPAN National Conference)
Publication Date: 2000
Source: WEPAN
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) »
[STEM/Diversity University Programs](#)

Women in Science and Engineering Building Community Online

Resource Title: Women in Science and Engineering Building Community Online

Description/Annotation: This article explores the constructs of online community and online social support and discusses a naturalistic case study of a public, unmoderated, online discussion group dedicated to issues of interest to women in science and engineering. The benefits of affiliation with OURNET (a pseudonym) were explored through participant observation over a 4-year period, telephone interviews with 21 subscribers, and content analysis of e-mail messages posted to the discussion group during a 125-day period. The case study findings indicated that through affiliation with the online discussion group, women in traditionally male-dominated fields expanded their professional networks, increased their knowledge, constituted and validated positive social identities, bolstered their self-confidence, obtained social support and information from people with a wide range of experiences and areas of expertise, and, most significantly, found community.

Author Last Name: Kleinman
Author First Name: Sharon S.
Publication Date: 2003
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 9

Issue: 1
Source: Harvard University
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women in Science and Engineering: Increasing Their Numbers in the 1990s: A Statement on Policy and Strategy

Resource Title: Women in Science and Engineering: Increasing Their Numbers in the 1990s: A Statement on Policy and Strategy

Description/Annotation: This book explores the under participation of women in science and engineering and presents a strategic plan to bring qualified women into such careers as researchers, teachers, and practitioners of science and engineering.

Author Last Name: Committee on Women in Science and Engineering

Publisher: National Academies Press, Inc.

Publisher Location: Washington, D.C.

Publication Date: 1991

Page Numbers: 168

Source: National Academies Press

Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: [Book](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Hiring Practices Career Factors](#) » [Retention Career Factors](#) » [Stereotype Threat](#)

Women in Science and Engineering: Theory, Practice, and Policy in Programs

Resource Title: Women in Science and Engineering: Theory, Practice, and Policy in Programs

Description/Annotation: Using data collected from the universe of university programs that are targeted to graduate-level women in science and engineering, this article takes an innovative approach to the study of programs. It does so by analyzing the patterns in these programs' definitions of the problem/issue of women in science and engineering; perspectives on the meanings of gender; solutions posed as they correspond to definitions and perspectives; and relationship of the programs to the organizational social contexts and regional locales in which they are located/embedded.

Author Last Name: Fox

Author First Name: Mary Frank

Publication Date: 1998, Jan

Page Numbers: 201-223

Publication Title: Signs: Journal of Women in Culture and Society

Volume: 24

Issue: 1

Source: JSTOR

Source Type: Partial text, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Cultural Influences](#) [Educational Factors Cultural Influences](#) » [Gender Diversity](#)

Women in Science, Engineering, and Technology: Three Decades of UK Initiatives

Resource Title: Women in Science, Engineering, and Technology: Three Decades of UK Initiatives

Description/Annotation: This book presents an accessible overview of the recent history of UK initiatives designed to encourage girls and women into nontraditional fields such as science, engineering, technology, construction, and the trades.

Author Last Name: Phipps

Author First Name: Alison

Publisher: Trentham Books
Publisher Location: Staffordshire, UK
Publication Date: 2008, Mar
Source: Trentham Books
Source Type: Available for Sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences Cultural Influences » Gender Diversity Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Women in Science, Technology, Engineering & Mathematics ON THE AIR!

Resource Title: Women in Science, Technology, Engineering & Mathematics ON THE AIR!

Description/Annotation: This radio program features stories about fascinating women working and learning in science, technology, engineering, and mathematics (STEM) fields, as well as programs and practices throughout the U.S. designed to broaden the participation of women in STEM.

Web site Link: [Link to Resource](#)

More: ON THE AIR! was produced for broadcast on two nationally-syndicated radio programs:

51%: A weekly magazine-style radio program dedicated to women's news and views. The program includes news, features, commentary, music, and arts reviews from a women's perspective.

The Best of Our Knowledge: a program dedicated to coverage of news and feature stories about issues and topics related to education, educational policy, innovation, and research.

Resources: The ON THE AIR! website contains links and audio clips from several series promoting the advancement of girls and women in STEM, including:

- [Access to Advancement](#) - highlights opportunities for, and the achievements of, women with disabilities in STEM.
- [The Sounds of Progress](#) - presents the latest research on women in STEM and profiles of women in STEM.
- [Powerful Signals](#) - features successful programs bringing women into STEM careers and profiles three women working in STEM fields.
- [Her-Story: Then and Now](#) - tells the inspiring stories of past women in STEM and examines programs engaging women today.
- [The Tech Club](#) - presents teenaged aspiring scientists talking with women in STEM about how they chose their careers.
- [Out Loud](#) - highlights educators and organizations that are introducing young women to careers in STEM.

Site Access Details: This is a publicly accessible site.

Partners and Funding: The Women in Science, Technology, Engineering, and Mathematics ON THE AIR! is produced by WAMC/Northeast Public Radio, a non-commercial, public radio station and non-profit organization. The website was made possible by support from the National Science Foundation.

Contact E-mail: womeninscience@wamc.org

Last Update Date: August 1, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Women in Science, Technology, Engineering and Math (STEM)

Resource Title: Women in Science, Technology, Engineering and Math (STEM)

Description/Annotation: 5 page fact sheet from Sociologists for Women in Society summarizing the current educational and employment status of U.S. women in STEM. Also provides short global comparison, explanations for 'why so few' and a short list of some in process efforts to make systemic changes.

Author Last Name: De Welde

Author First Name: Kristine

Additional Author: Laursen

: Sandra

Additional Author: Thiry
: Heather
Publisher: Sociologists for Women in Society
Publication Date: 2007
Source: SWS
Source Type: Full text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors Educational Factors Career Factors » Employment Educational Factors » Formal Academic Preparation Educational Factors » Retention](#)

Women in Science: A Fair Shake?

Resource Title: Women in Science: A Fair Shake?
Description/Annotation: This article reviews several books discussing women's inequality in science.
Author Last Name: Etzkowitz
Author First Name: Henry
Additional Author: Gupta
: Namrata
Publication Date: 2006
Page Numbers: 185-199
Publication Title: Minerva
Volume: 44
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports » Literature Reviews](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences » Gender Diversity Career Factors » Professional Development](#)

Women in Science: Career Processes and Outcomes

Resource Title: Women in Science: Career Processes and Outcomes

Description/Annotation: Examines why women are underrepresented in science and engineering by examining the career processes and outcomes of women scientists and comparing their experiences with those of men. Science career trajectories considered from middle school through career years.

Author Last Name: Yu

Author First Name: Xie

Additional Author: Kimberlee A.
: Shauman

Publisher: Harvard University Press

Publisher Location: Cambridge, MA

Publication Date: 2003

Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences » Gender Diversity](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

Women in Science: International Perspectives

Resource Title: Women in Science: International Perspectives

Description/Annotation: This article discusses the role women have played in the history of science, the prejudice and disadvantage encountered in the course of their careers, and the implementation of policies that are intended to ease that 'choices' that many women face.

Publication Date: 2001

Page Numbers: 151

Publication Title: Minerva

Volume: 39

Issue: 2

Source: Springer Link

Source Type: Abstract, Full Text available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Women In Science: Then and Now

Resource Title: Women In Science: Then and Now

Description/Annotation: Newly revised twenty-fifth anniversary edition in which acclaimed journalist Vivian Gornick interviews famous and lesser-known scientists, compares their experiences in the 1980s with now, and shows that, although not much has changed in the world of science, what is different is women's expectations that they can and will succeed. Everything from the disparaging comments by Harvard's then-president to government reports and media coverage focuses on the ways in which women supposedly can't do science. Gornick's original 100 interviews show how deep and severe discriminations against women have been in all the scientific fields. Her new interviews, with some of the same women she spoke to twenty-five years ago, provide a fresh description of the hard times and great successes these women have experienced.

Author Last Name: Gornick

Author First Name: Vivian

Publisher: The Feminist Press at CUNY

Publisher Location: New York, NY

Publication Date: 2009, Mar 01

Page Numbers: 160

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women in Science: Why So Few? Social and Psychological Influences Restrict Women's Choice and Pursuit of Careers in Science

Resource Title:	Women in Science: Why So Few? Social and Psychological Influences Restrict Women's Choice and Pursuit of Careers in Science
Description/Annotation:	Seminal work examining factors affecting women's success in Science careers. In their backgrounds one is likely to find a professional mother, an unusually supportive father, or dedicated and stimulating teachers.
Author Last Name:	Alice S.
Author First Name:	Rossi
Publisher:	AAAS
Publication Date:	1965, May 28
Page Numbers:	1196-1202
Publication Title:	Science
Volume:	148
Issue:	3674
Source:	AAAS
Source Type:	Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family Individual Beliefs and Behaviors](#) » [Family & Peers Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women in STEM Knowledge Center (WSKC)

Resource Title:	Women in STEM Knowledge Center (WSKC)
Description/Annotation:	The WEPAN Knowledge Center (WKC) provides a publicly accessible tool for accessing information related to women in science, technology, engineering and math and a professional networking platform for registered users.
Web site Link:	Link to Resource

Logo:

More:

Women in STEM Knowledge Center offers in one place: •

Access to cataloged and fully cited information resources including research reports, data and statistics, agenda papers, bibliographies, best practices, key programs, and more.

- Direct access to resources housed in the Women in STEM Knowledge Center
- Links to resources housed on other sites
- Advanced search capabilities
- Easy uploading procedures for additional resources you contribute

An online Professional Community for networking, collaborating, identifying subject matter experts, and sharing information.

- Build and maintain your own profile
- Join or establish professional interest groups
- Monitor and post calendar events
- Communicate via blogs, discussion boards, online chat, or e-mail messages

Special online events.

- Panel discussions and interviews with subject matter experts
- Webcasts and Webinars

Site Access Details:

The Women in STEM Knowledge Center is a publicly accessible website. Access to the professional community is available for registered users (no fee required).

Partners and Funding:

Development of the Women in STEM Knowledge Center was funded by a grant from the National Science Foundation (National Science Foundation Engineering Education and Centers Grant #0648210) and support from corporate sponsors.

Contact E-mail:

info@wskc.org

Last Update Date:

Oct 4, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity Assoc and Not for Profits](#)

Women in STEM: A Gender Gap to Innovation

Resource Title:

Women in STEM: A Gender Gap to Innovation

Description/Annotation: Using data from the 2009 American Community Survey, report discusses gender differences in wage premiums/gaps based on STEM/non-STEM undergraduate degree and STEM job. Effective charts presenting data but ineffectual discussion of root causes. No root cause research cited, only statements of "perhaps... "

Author Last Name: Beede
Author First Name: David
Additional Author: Julian
: Tiffany
Additional Author: Langdon
: David
Additional Author: McKittrick
: George
Additional Author: Khan et. al.
: Beethika
Publisher: U.S. Dept of Commerce, Economics and Statistics Administration
Publisher Location: Washington, D.C.
Publication Date: 2011, Aug
Page Numbers: 11
Volume: ESA Issue Brief #04-11
Source: ESA
Source Type: Full Text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors Career Factors » Employment Career Factors » Salary](#)

Women in STEM

Resource Title: Women in STEM

Description/Annotation: This website is dedicated to increasing the participation of women and girls in the fields of science, technology, engineering, and mathematics (STEM). "Women in STEM" aims to do so by :

increasing the engagement of girls with STEM subjects in formal and informal environments; encouraging mentoring to support women throughout their academic and professional experiences; and supporting efforts to retain women in the STEM workforce.

Web site Link: [Link to Resource](#)

More: The development of world-class talent in STEM is critical to America's global leadership. According to the "Women in STEM" website, the Obama Administration understands that fostering an open and diverse scientific community is a necessary step to realizing this goal.

Resources: The wealth of STEM resources on the website includes:

- Factsheets & Reports
- Recent News
- Video
- Speeches & Events
- Engagement
- College & Career Readiness
- Mentoring
- Workplace Flexibility

Site Access Details: This is a publicly accessible site.

Partners and Funding: The site is funded by the White House Office of Science and Technology Policy, in collaboration with the White House Council on Women and Girls.

Last Update Date: July 25, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Educational Factors Individual Beliefs and Behaviors Career Factors » Mentoring Educational Factors » Retention Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Women in Technology International (WITI)

Resource Title: Women in Technology International (WITI)

Description/Annotation: WITI was the first organization of its kind when founded in 1989 to help women advance by joining a community of other women working in any technology field. WITI is not a "womens only" club, women work alongside men to empower women to reach success through technology, increase their leadership roles, and improve their economic status.

Web site Link: [Link to Resource](#)

More: WITI now has over 114,000 registered users.

Resources: **WITI's extensive resources include:**

- Publications and resources available at no cost to the general public.
- Career development tools available to registered users (no charge) including job search, resume posting, and newsletter.
- Networking through regional groups for members.
- Conferences and events.
- Teleclasses and webinars.
- Marketplace for members to post business profiles.

Site Access Details: Access to the site differs according to the level of involvement, whether unregistered users, registered users, or members. The general public has access to a great deal of the resources. Free registration to the WITI community allows access to more resources, and members have even greater benefits. Membership is available as an individual, small business, or corporate level.

Partners and Funding: WITI is supported by its' members and many corporate sponsors. WITI is managed by two Executive Management Teams, WITI Unlimited and WITI Foundation, with assistance from a 16-member Advisory Board. Carolyn Leighton is CEO, Chairwoman and Founder of WITI Unlimited, and Cathy Gawre, Esquire, is Executive Director of WITI Foundation.

Contact Name: David Leighton

Contact E-mail: david@corp.witi.com

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls Diversity Orgs & Pgms for Women and Girls » International](#)

Women in Technology Outreach Kit

Resource Title: Women in Technology Outreach Kit

Description/Annotation: Increase recruitment of women into male-dominated fields at the community college level by creating a WomenTech area of your college website that includes female role models. Hands-on guide that you can use to work with your school's web designer to build a women in technology section of your school's website.

Author Last Name: IWITTS

Publisher: Institute for Women in Trades, Technology, and Science
Publisher Location: Alameda, CA
Source: IWITTS
Source Type: Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors Career Factors » Mentoring Career Factors » Professional Development](#)

Women in Technology Sharing Online (WitsOn)

Resource Title: Women in Technology Sharing Online (WitsOn)
Description/Annotation: This pilot program connects undergraduate students pursuing STEM degrees with female mentors from industry and academia who can speak from personal experience about issues of particular concern to young women.
Web site Link: [Link to Resource](#)
More: The pilot program will run for 6-weeks starting October 2013.
Resources: The WitsOn website contains information to [enroll students](#) in the program, as well as a Piazza demo.
Site Access Details: This is a publicly accessible site.
Partners and Funding: WitsOn is sponsored by Piazza Technologies, Inc. and Harvey Mudd College. Over 70 U.S. colleges and universities participate in WitsOn.
Last Update Date: August 1, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors Diversity Orgs & Pgms for Women and Girls Career Factors » Mentoring Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Women in Technology: Attitudes, Perceptions, and Beliefs Regarding their Majors and Intended Careers

Resource Title: Women in Technology: Attitudes, Perceptions, and Beliefs Regarding their Majors and Intended Careers

Description/Annotation: This paper discusses Women in Technology, a student group formed at Purdue University to promote leadership, networking, outreach, and mentoring among women, and to provide them with a sense of community. This paper presents an overview of the organization; discusses the results of a survey of the members' attitudes, beliefs, and perceptions regarding their majors and intended careers, foregrounding the voices of the participants; and proposes strategies for better positioning the organization to recruit and retain women in the field of technology.

Author Last Name: Miller
Author First Name: Susan G.
Additional Author: Wasburn
: Mara H.
Publication Date: 2002
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Journal Articles](#) Topical
Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity University Programs](#)

Women in Technology: Maximizing Talent, Minimizing Barriers

Resource Title: Women in Technology: Maximizing Talent, Minimizing Barriers

Description/Annotation: This 44 page report examines women in the high-tech and technical fields today, and makes comparisons to earlier reports related to job satisfaction and barriers to advancement in the technology fields for women. The authors focus on what improvements have been made by companies to retain women and what more needs to be done to prevent talented women from leaving the profession. The authors address two areas of concern-supervisory relationships and fairness/having a voice in the company as the two largest reasons women leave their companies. Specific action steps are proposed for companies to address issues with retaining female talent. For women employees and industry leaders.

Author Last Name: Foust-Cummings
Author First Name: Heather
Additional Author: Sabattini
:
Additional Author: Carter
:
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2008, Feb
Page Numbers: 1-44
Source: Catalyst
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Retention](#)

Women in Technology

Resource Title: Women in Technology

Description/Annotation: Article series from 2007 on publisher O'Reilly website written by women on the topic of "Women in Technology" at all stages of their careers and lives.

Web site Link: [Link to Resource](#)

Resources: Series contains 31 personal stories and interviews.

Site Access Details: This area of the website is publicly accessible.

Contact Name: Tatiana Apandi

Contact E-mail: tatiana@oreilly.com

Last Update Date: May 15, 2013

Resource Type Categories: [Digital Library/Collection](#) Topical Categories: [Career Factors Cultural Influences Cultural Influences » Family Career Factors » Family Issues Individual Beliefs and Behaviors Career Factors » Professional Development Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Women in the Chemical Workforce: A Workshop Report to the Chemical Sciences Roundtable

Resource Title: Women in the Chemical Workforce: A Workshop Report to the Chemical Sciences Roundtable

Description/Annotation: Chemical Sciences Roundtable workshop discussing status of women in chemistry in academia and the workforce.

Author Last Name: Chemical Sciences Roundtable

Publisher: National Academies Press, Inc.

Publisher Location: Washington, D.C.

Publication Date: 2000

Page Numbers: 158

Source: National Academies Press

Source Type: Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: [Book Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#)

Women in the Labor Force: A Databook (2011 Edition)

Resource Title: Women in the Labor Force: A Databook (2011 Edition)

Description/Annotation: This report presents historical and current labor force and earnings data for women and men from the Current Population Survey (CPS). The CPS is a national monthly survey of approximately 60,000 households conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics.

Author Last Name: BLS

Publisher: U.S. Bureau of Labor Statistics

Publication Date: 2011, Dec

Page Numbers: 1-98

Source: BLS
Source Type: Full Text

Resource Type Categories: [Data and Statistics » Reports](#) Topical Categories: [Career Factors Career Factors » Employment Career Factors » Salary](#)

Women Matter 2012: Making the Breakthrough

Resource Title: Women Matter 2012: Making the Breakthrough

Description/Annotation: This report from McKinsey & Company, an international management consulting firm, is the fifth in the Women Matter series and is part of McKinsey's global research program into women's representation in business. The report presents findings from qualitative and quantitative surveys and interviews with senior executives to benchmark the gender diversity programs of 235 European companies. According to the report, results indicate that the vast majority of companies devote precious resources to redress the gender imbalance, yet many companies express frustration that their efforts do not always gain traction. The full report is available in PDF format.

Author Last Name: Devillard

Author First Name: Sandrine

Additional Author: Graven
: Wieteke

Additional Author: Lawson
: Emily

Additional Author: Paradise
: Ren?e

Additional Author: Sancier-Sultan
: Sandra

Publisher: McKinsey and Company

Publisher Location: London, United Kingdom

Publication Date: 2012, Mar

Page Numbers: 1-26

Source: McKinsey and Company
Source Type: Full Text

Resource Type Categories: [Data and Statistics](#) » [Reports Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity Cultural Influences](#) » [Gendered Occupations & Study Choices Career Factors](#) » [Organizational Culture](#)

Women of color in science, technology, engineering, and mathematics (STEM)

Resource Title: Women of color in science, technology, engineering, and mathematics (STEM)

Description/Annotation: Treating women as a homogeneous group obscures important racial and ethnic differences among women in STEM. This chapter focuses on the experiences of women of color in science and engineering and highlights the importance of addressing intersecting identities among women.

Author Last Name: Johnson

Author First Name: Dawn R.

Publication Date: 2011

Page Numbers: 75-85

Publication Title: New Directions for Institutional Research

Volume: Winter 2011

Issue: 152

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors Career Factors](#) » [Organizational Culture Career Factors](#) » [Professional Development](#)

Women of Color in Technology

Resource Title: Women of Color in Technology

Description/Annotation: IBM presentation discussing status of women of color in IT in the workplace. Highlights opportunities in IT and barriers women may face in their advancement. Includes pragmatic success strategies and what employers expect of employees.

Author Last Name: Acevedo

Author First Name: Paulina

Additional Author: Brown

: Denise

Additional Author: Pro

: Juliet

Additional Author: Ronquillo

: Wanda

Additional Author: Ruiz

: Marina

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Source: WEPAN

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings Webinar/Video](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#) [Career Factors](#) » [Stereotype Threat](#)

Women on the Margin of Engineering: Acceptable and Unacceptable Theses

Resource Title: Women on the Margin of Engineering: Acceptable and Unacceptable Theses

Description/Annotation: This paper examines the phenomenon of under-representation in engineering—what our faculty ought to look like, why it might reasonably be obliged to look a certain way, and how any cosmetic faculty prescriptions (or proscriptions) might entail changes in the performance of both faculties and students.

Author Last Name: Haws

Author First Name: David
Publication Date: 2006
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Retention](#)

Women Science Majors: What Makes a Difference in Persistence after Graduation?

Resource Title: Women Science Majors: What Makes a Difference in Persistence after Graduation?

Description/Annotation: This article examines factors related to persistence in science/mathematics of women science or mathematics majors. Cohort, major, number of undergraduate science courses, parental encouragement, and career advice from faculty were key factors associated with persistence in science/mathematics after college.

Author Last Name: Rayman
Author First Name: Paula
Additional Author: Brett
:
Belle
Publication Date: 1995
Publication Title: The Journal of Higher Education
Volume: 66
Issue: 4
Source: JSTOR
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#)

Women Scientists and Engineers Employed in Industry: Why so Few?

Resource Title:	Women Scientists and Engineers Employed in Industry: Why so Few?
Description/Annotation:	This book, based on a conference, examines both quantitative and qualitative evidence regarding the low employment of women scientists and engineers in the industrial work force of the United States, as well as corporate responses to this under participation. It addresses the statistics underlying the question "Why so few?" and assesses issues related to the working environment and attrition of women professionals.
Author Last Name:	OSEP
Publisher:	National Academies Press, Inc.
Publisher Location:	Washington, D.C.
Publication Date:	1999
Page Numbers:	144
Source:	National Academies Press
Source Type:	Summary, Hardcopy Available for sale, Partial text

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Career Factors](#) » [Retention](#) [Cultural Influences](#) » [Stereotype Threat](#) [Career Factors](#) » [Stereotype Threat](#)

Women Scientists in Industry: A Winning Formula for Companies

Resource Title:	Women Scientists in Industry: A Winning Formula for Companies
Description/Annotation:	A small but powerful study done on women scientists in industry. In-depth interviews were done with 30 highly successful women scientists working in industry. Different aspects of their lives and careers were explored, such as the lack of information they were given as graduate students about careers, the unwelcome attitude from academia, and barriers from the corporate world in their

advancement. Successful strategies for women scientists such as networking and mentoring are explored, and best practices from industry are included. Valuable for women in science in both industry and academia.

Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 1999, Jun
Page Numbers: 1-66
Source: Catalyst
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#)

Women Scientists in Laboratory Culture: Perspectives from an Academic Scientist in Training

Resource Title: Women Scientists in Laboratory Culture: Perspectives from an Academic Scientist in Training

Description/Annotation: This is a personal statement and testimony from Diane Hoffman-Kim, a recent mother and postdoctoral researcher. She describes her experiences and how the woman in the lab does not fit the norm.

Author Last Name: Hoffman-Kim
Author First Name: Diane
Publisher: New York Academy of Sciences
Publication Date: 1999, Dec
Page Numbers: 106-109
Publication Title: Annals of the New York Academy of Sciences
Volume: 869
Issue: Women in Science and Engineering: Choices for Success
Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Stereotype Threat](#)

Women Speaking Up: Getting and Using Turns in Workplace Meetings

Resource Title: Women Speaking Up: Getting and Using Turns in Workplace Meetings

Description/Annotation: Dr. Ford's research documents how women get their voices heard in meetings. Using videotapes and detailed transcriptions of naturally-occurring conversations in a variety of meetings, Dr. Ford found that the women in her data regularly use questions to open participation and to project trajectories of further talk in which the questioners emerge as major contributors. This finding contrasts with some previous studies that pointed to women's use of questioning as a powerless or weak strategy; Ford proposes that some forms of questioning give power to the questioner rather than the addressee. The book also offers a chapter presenting a fine-grained analysis of two women who succeed in presenting disaffiliative or disagreeing turns directed toward persons of higher institutional rank (persons who happen to be men).

Author Last Name: Ford

Author First Name: Cecilia E.

Publisher: Palgrave Macmillan

Publisher Location: Hampshire, England

Publication Date: 2007

Page Numbers: 1-256

Publication Title: Palgrave Studies in Professional and Organizational Discourse Series

Source: Palgrave Macmillan

Database Name: Barnes & Noble

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors » Leadership & Management](#) [Individual Beliefs and Behaviors » Negotiation Skills](#) [Career Factors » Professional Development](#)

Women STEM Faculty at Ohio State: Resource Allocation and Department Climate

Resource Title:	Women STEM Faculty at Ohio State: Resource Allocation and Department Climate
Description/Annotation:	This 12-page paper from the 2012 WEPAN National Conference examines two studies from Ohio State University's Comprehensive Equity at Ohio State (CEOS) effort, which focuses on retention and career progression for women faculty in the STEM disciplines. The first study examines four measures that reflect conditions of employment and the second examines faculty perceptions of their working environment. The data show that the University has done well at equilibrating men's and women's access to material resources, but less well at ensuring that all faculty have equally satisfying work environments. According to the report, the challenge for gender equity in STEM at Ohio State lies in departmental culture and interpersonal interactions. The full conference paper is available in PDF format.
Author Last Name:	Herbers
Author First Name:	Joan M.
Additional Author:	Desai
:	Anand
Publisher:	WEPAN (Proc. of the 2012 WEPAN National Conference)
Publication Date:	2012
Page Numbers:	1-12
Source:	WEPAN
Source Type:	Abstract, Full Text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors » Employment](#) [Individual Beliefs and Behaviors](#) [Career Factors » Organizational Culture](#) [Career Factors » Retention](#) [Individual Beliefs and Behaviors » Self-perception](#)

Women Swell Ranks As Middle Managers, But Are Scarce at Top

Resource Title: Women Swell Ranks As Middle Managers, But Are Scarce at Top

Description/Annotation: Newspaper article in Wall Steeet Journal reports that although women are represented in lower level and mid-level positions, the number of women in top management is still dismally low. Women of color are even more underrepresented. The article looks at the reasons for this under representation, and suggests changes that must occur to change the situation. The author suggests some of the responsibility be shouldered by the women themselves and not just the companies. Of interest to women in the workplace and industry leaders.

Author Last Name: Hymowitz

Author First Name: Carol

Publisher: Wall Street Journal

Publisher Location: New York, NY

Publication Date: 2006, Jul 24

Page Numbers: B1

Publication Title: Wall Street Journal (Eastern Edition)

Source: WSJ

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors Career Factors](#) » [Leadership & Management](#)

Women Technology Leaders: Gender Issues in Higher Education Information Technology

Resource Title: Women Technology Leaders: Gender Issues in Higher Education Information Technology

Description/Annotation: In this journal article, three women higher education chief information officers (CIOs) provide their perspectives, interpretations, and experiences regarding the gendered organization of higher education IT. Women working in higher education IT organizations and those seeking leadership positions

in these organizations face a double challenge in overcoming the traditionally male-dominated environments of higher education and IT. This research, being unique in specifically studying women CIOs in higher education, expands the knowledge base regarding advantage and disadvantage within such organizations based on masculine/feminine and male/female working culture and experience.

Author Last Name: Drury
Author First Name: Marilyn
Publisher: NASPA
Publisher Location: Waldorf, MD
Publication Date: 2011
Page Numbers: 96-123
Publication Title: NASPA Journal About Women in Higher Education
Volume: 4
Issue: 1
Source: NASPA
Source Type: Abstract/Available for Download

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Leadership & Management](#) [Career Factors](#) » [Organizational Culture](#)

Women Who Pursue Science Education: The Teachers They Remember, the Insights They Share

Resource Title: Women Who Pursue Science Education: The Teachers They Remember, the Insights They Share
Description/Annotation: This study examines the women science educators and the positive and gender-fair science classes that led them to pursue a career in science education.
Author Last Name: Taylor
Author First Name: Marilyn J.
Additional Author: Swetnam

: Leslie A.
Additional Author: Friot
: F. Elizabeth
Publication Date: 1999
Page Numbers: 33-36
Publication Title: The Clearing House: A Journal of Educational Strategies,
Issues and Ideas
Volume: 73
Issue: 1
Source: Taylor and Francis
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Women's Career Development: Can Theoretically Derived Variables Predict Persistence in Engineering Majors?

Resource Title: Women's Career Development: Can Theoretically Derived
Variables Predict Persistence in Engineering Majors?

Description/Annotation: This 11-page paper reports on a study to test the prediction value
of several theoretically derived variables as they affect student
persistence in engineering. The factors with potential effects on
student persistence discussed in the study include ability, self-
efficacy, expectancy-valence, interest congruence, barriers, and
support. The quantitative study itself assessed the interaction
between these variables and found that there was little gender
difference in the persistence of the study population or in the
relationships between variables and persistence.

Author Last Name: Schaefers
Author First Name: Kathleen G.
Additional Author: Epperson
: Douglas L.

Additional Author: Nauta
:
Margaret M.
Publication Date: 1997
Page Numbers: 173-183
Publication Title: Journal of Counseling Psychology
Volume: 44
Issue: 2
Source: APA
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors Individual Beliefs and Behaviors Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women's Employment in the Sciences in Europe

Resource Title: Women's Employment in the Sciences in Europe
Description/Annotation: This paper discusses the current situation of women in scientific education and employment in European Union and applicant countries which shows patterns of vertical and horizontal segregation. Yet the data that underpin these analyses are patchy, and despite some efforts to reuse available data, there is a clear need for new data, an effort that is gathering momentum in the European Commission (EC) and other pan-European bodies. Here, the author focuses particularly on a recent rationale in the EC, the "science and society" perspective.
Author Last Name: Glover
Author First Name: Judith
Publication Date: 2002
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 8
Issue: 3&4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Employment](#)

Women's Engineering Conference Focuses on Life-Work Balance

Resource Title:	Women's Engineering Conference Focuses on Life-Work Balance
Description/Annotation:	The news article reports that the United States Navy sponsored the Society of Women Engineers (SWE) conference November 6, 2008, held in Baltimore. Keynote speaker was Navy Capt. Paz B. Gomez, P.E. Her speech discussed the importance of finding work-life balance and included tips on how to do so. The military recognizes the importance of recruiting and retaining women who can balance their work and personal lives, and supports efforts tied to industry to help inform women in being successful in their careers while balancing home life. For industry and the workplace.
Author Last Name:	Hazzard
Author First Name:	Frank
Publisher:	United States Navy
Publication Date:	2008, Nov
Source:	U.S. Navy
Source Type:	Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Professional Development](#)

Women's experiences in the STEM community college transfer pathway

Resource Title:	Women's experiences in the STEM community college transfer pathway
Description/Annotation:	This study examined the experiences of thirty women using the community college transfer pathway to earn four-year STEM degrees. Participants were examined once while finishing at

community college and again one semester later. Results indicated that after transferring to a four-year institution, the majority of women persisted in STEM majors despite many barriers. Finding a helpful professor or advisor and cotransfer support boosted belongingness and contributed to persistence. Funded by NSF GSE under award #0734000.

Author Last Name: Packard
Author First Name: Becky Wai-Ling
Additional Author: Gagnon
: Janelle L.
Additional Author: LaBelle
: Onawa
Additional Author: Jeffers
: Kimberly
Additional Author: Lynn
: Erica
Publication Date: 2011
Page Numbers: 129-147
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 17
Issue: 2
Source: NAS
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Educational Factors](#) » [Formal Academic Preparation](#) [Career Factors](#) » [Mentoring Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Women's Participation in Science Has Increased, But Agencies Need To Do More To Ensure Compliance with Title IX

Resource Title: Women's Participation in Science Has Increased, But Agencies Need To Do More To Ensure Compliance with Title IX

Description/Annotation: This report addresses how the Dept. of Energy, Dept. of Education, NASA and the NSF ensure that grant recipient institutions comply with Title IX in math, engineering, and science, what data show about women's participation in these fields, and what promising practices exist to promote their participation.

Author Last Name: GAO

Publisher: U.S. Government Accounting Office

Publisher Location: Washington, DC

Publication Date: 2004, Jul

Page Numbers: 55

Publication Title: GAO-04-639

Source: GAO

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [US National Reports](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Women's Selection of Quantitative Undergraduate Field of Study: Direct and Indirect Influences

Resource Title: Women's Selection of Quantitative Undergraduate Field of Study: Direct and Indirect Influences

Description/Annotation: This 19 page report proposed a Structural Equation Model (SEM) examining two suggested strategies to increase women's share of mathematical / scientific - quantitative - degrees. The predominant factor in the model was the number of math and science courses taken in high school. Other factors were the selection of a qualitative field of study by the sophomore year of high school and background characteristics and attitudes. Population included 30,000 sophomores in 1980 who were tested again in 1982 and 1984.

Author Last Name: Ethington

Author First Name: Corrina

Additional Author: Wolfe

: Lee
Publication Date: 1988
Page Numbers: 157-175
Publication Title: American Educational Research Journal
Volume: 25
Issue: 5
Source: ERIC
Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Women's Ways of Knowing: The Development of Self, Voice, and Mind

Resource Title: Women's Ways of Knowing: The Development of Self, Voice, and Mind

Description/Annotation: 10th edition of book based on study examining how women think. Authors developed theory consisting of five types of "knowing" dealing with a woman's perceptions of and approaches to the world.

Author Last Name: Belenky
Author First Name: Mary
Additional Author: Clinchy
: Blythe
Additional Author: Goldberger
: Nancy
Additional Author: Tarule
: Jill
Publisher: Basic Books
Publication Date: 1997

Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Individual Beliefs and Behaviors » Cognition Individual Beliefs and Behaviors Individual Beliefs and Behaviors » Self-perception](#)

Women, Engineering and Research: Providing Choice and Balance

Resource Title: Women, Engineering and Research: Providing Choice and Balance

Description/Annotation: This paper discusses a number of primary obstacles that females have encountered in engineering. Some initiatives on the proposal based on the statistics survey to support women in engineering will also present and share among the academic community; it is hoped that the measures proposed will be of practical use for other academic communities who are affected by the under-representation of women. The overarching aim is that potential research insights from women will be encouraged and not neglected so “no great research” is overlooked.

Author Last Name: Murphy

Author First Name: Mike

Additional Author: Chan

: Cecilia

Publication Date: 2006

Publication Title: ASEE Annual Conference Proceedings

Source: Research Gate

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports » Conference Papers/Proceedings](#) Topical Categories: [Career Factors Career Factors » Retention](#)

Women, Food, and CFCs: A Technological Literacy Course Based On the History of Refrigeration

Resource Title: Women, Food, and CFCs: A Technological Literacy Course Based On the History of Refrigeration

Description/Annotation: This paper describes "Engineering, the Human Enterprise," a technological literacy course which was first offered at the University of Massachusetts Amherst in the fall of 1997. The course treats the common household technology of refrigeration from historical, technical, and environmental points of view. Following a review of domestic American housekeeping and the problems associated with food preservation, the history of the natural ice industry in the U. S. is traced from its beginnings in the 1820s through its demise after the advent of mechanical refrigeration. Faculty then introduce enough qualitative thermodynamics concepts to enable students to understand the basic vapor-compression refrigeration cycle, aided by instructional software developed specifically for the course. Student response to the course has been positive. The same basic historical problem- solution-problem format can be applied to other technologies, including the automobile, electronic communications, and the computer. A discussion of curricular and philosophical issues relating to technological literacy courses such as this one concludes the paper.

Author Last Name: Stephan

Author First Name: Karl D.

Publication Date: 1999

Publication Title: ASEE Annual Conference Proceedings

Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Women, Gender, and Technology

Resource Title: Women, Gender, and Technology

Description/Annotation: This book is a collection of 10 essays relating the interactions of gender and technology in different disciplines, including engineering, film narratives, reproductive technologies, and information technology. The chapter on "Women and

Engineering" provides a high level, general overview of the state of men and women in engineering with some statistics (from the 1990s) on the differences.

Author Last Name: Fox (ed.)
Author First Name: Mary
Publisher: University of Illinois Press
Publisher Location: Illinois
Publication Date: 2006
Page Numbers: 1-204
Source: Google Book Search
Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#)

Women, information technology and ‘waves of optimism’: Australian evidence on ‘mixed-skill’ jobs

Resource Title: Women, information technology and ‘waves of optimism’: Australian evidence on ‘mixed-skill’ jobs

Description/Annotation: Drawing on evidence from Australia, this paper highlights limitations to optimism about the increased engagement of women in information technology, questioning the potential for women in mixed-skill jobs in computing and multimedia organizations.

Author Last Name: Roan
Author First Name: Amanda
Additional Author: Whitehouse
: Gillian
Publication Date: 2007, Mar
Page Numbers: 21-33
Publication Title: New Technology, Work and Employment
Volume: 22

Issue: 1
Source: Wiley
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Cultural Influences](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Career Factors](#) » [Retention](#)

Women, Knowledge, and Reality: Explorations in Feminist Philosophy

Resource Title: Women, Knowledge, and Reality: Explorations in Feminist Philosophy
Description/Annotation: Collection of essays providing various perspectives and approaches to feminist theory.
Author Last Name: Garry (ed.)
Author First Name: Ann
Additional Author: Pearsall (ed.)
:
Publisher: Routledge, Inc.
Publisher Location: New York, NY
Publication Date: 1996
Source: Amazon
Source Type: Abstract, Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Women, Men, and Academic Performance in Science and Engineering: The Gender Difference in Undergraduate Grade Point Averages

Resource Title: Women, Men, and Academic Performance in Science and Engineering: The Gender Difference in Undergraduate Grade Point Averages

Description/Annotation: Using longitudinal and multi-institutional data, this article takes an innovative approach in its analyses of gender differences in grade point averages (GPA) among undergraduate students in biology, the physical sciences, and engineering over a 16-year period. Assessed are hypotheses about (a) the gender ecology of science/engineering and (b) the structural advantage of the presence of programs for women.

Author Last Name: Sonnert

Author First Name: Gerhard

Additional Author: Fox

: Mary Frank

Publication Date: 2012, Feb

Page Numbers: 73-101

Publication Title: Journal of Higher Education

Volume: 83

Issue: 1

Source: ERIC

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Women, Minorities and Persons with Disabilities in Science and Engineering: 2013

Resource Title: Women, Minorities and Persons with Disabilities in Science and Engineering: 2013

Description/Annotation: This digest provides statistical information about the participation of women, minorities, and persons with disabilities in science and engineering education and employment. The digest highlights key statistics drawn from a wide variety of data sources and is available as a 14-page PDF or, as a dynamic online presentation. Data and figures are organized into six themes: enrollment, field of degree,

employment status, occupation, academic employment, and persons with disabilities.

Author Last Name: NSF
Publisher: NSF, Division of Science Resources Statistics
Publisher Location: Arlington, VA
Publication Date: 2013, Feb
Page Numbers: 1-14
Publication Title: NSF13-304
Source: NSF
Source Type: Full text - pdf, data tables, interactive tool

Resource Type Categories: [Database/Tool](#) » [Database Data and Statistics](#) » [Reports](#) Topical Categories: [Educational Factors Career Factors](#) » [Employment Educational Factors](#) » [Formal Academic Preparation](#)

Women, Minorities Rare on Science, Engineering Faculties

Resource Title: Women, Minorities Rare on Science, Engineering Faculties
Description/Annotation: This one-page article summarizes the findings of Donna Nelson's comprehensive study of female and minority representation in science and engineering faculty in the United States. Women were underrepresented, even when compared with the percentage of women earning PhDs. Minority women were even more underrepresented. The assistant professor rank had the highest percentage of women faculty. This is a useful summary of the key findings of the main report.
Author Last Name: Black Issues
Publisher: Cox Matthews and Associates, Inc.
Publisher Location: Fairfax, VA
Publication Date: 2004, Feb 2
Page Numbers: 19
Publication Title: Diverse Issues in Higher Education
Volume: 20

Issue: 26
Source: Diverse Issues in Higher Education
Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors Cultural Influences Career Factors](#) » [Employment Cultural Influences](#) »
[Gender Diversity](#)

Women, Minorities, and Persons with Disabilities in Science and Engineering (NSF)

Resource Title: Women, Minorities, and Persons with Disabilities in Science and Engineering (NSF)

Description/Annotation: NSF portal offering online access to individual tables from national report that provides information about the participation of women, minorities, and persons with disabilities in science and engineering education and employment. Site provides browsing by topic or demographic grouping. Data are updated on a rolling basis and tables are available in Excel or PDF formats.

Web site Link: [Link to Resource](#)

More: The 2013 digest is organized into six themes: enrollment, field of degree, employment status, occupation, academic employment, and persons with disabilities.

Resources: Resources include:

- Data by topic (enrollment, degrees, characteristics of doctorate recipients, primary source of financial support, post doc status, employment)
- Data by grouping (sex, race/ethnicity, minority women, disability status)
- Full reports issued every two years (last report Feb 2013)
- Individually accessible tables and reports
- Links to related NSF reports and non-NSF resources

Site Access Details: This is a publicly accessible site.

Partners and Funding: This is a U.S. government site from the National Science Foundation, Division of Science Resource Statistics (SRS).

Contact E-mail: srsweb@nsf.gov

Last Update Date: March 1, 2013

Resource Type Categories: [Database/Tool](#) » [Database](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Employment](#) [Educational Factors](#) » [Formal Academic Preparation](#)

Women, research and universities: excellence without gender bias

Resource Title: Women, research and universities: excellence without gender bias

Description/Annotation: This 30-page report from the League of European Research Universities (LERU) examines the factors involved in gender inequality among women in research. The report highlights four well-known and -evidenced challenges regarding women in research. According to the report, more women than men drop out of research careers, resulting in an underrepresentation of women in leading positions, a loss of talent for society and a lack of diversity in the workplace, each of which presents a potential threat to the search for excellence in research. The full report is available in PDF format.

Author Last Name: Maes

Author First Name: Katrien

Additional Author: Gvozdanovic

: Jadranka

Additional Author: Buitendijk

: Simone

Additional Author: Hallberg

: Ingalill Rahm

Additional Author: Mantilleri

: Brigitte

Publisher: League of European Research Universities (LERU)

Publisher Location: Leuven, Belgium

Publication Date: 2012, Jul

Page Numbers: 1-30

Source: LERU

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention](#)

Women, Science and Technology: A Reader in Feminist Science Studies

Resource Title: Women, Science and Technology: A Reader in Feminist Science Studies

Description/Annotation: An introductory reader on the topic of how feminism is changing the study of science. Numerous articles across different disciplines, each with its own bibliography, build a context that tells the story of how feminism is both making important changes in science yet sometimes still perpetuating the same gender problems. Perfect for academics, students, women and men in the workforce, and industry leaders and management.

Author Last Name: Wyer

Author First Name: Mary

Publisher: Routledge

Publisher Location: New York, NY

Publication Date: 2000, Dec

Page Numbers: 1-400

Source: Amazon

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Women, Science, and Academia: Graduate Education and Careers

Resource Title: Women, Science, and Academia: Graduate Education and Careers

Description/Annotation: Using data from a national survey of doctoral students in science and engineering, this article addresses three central questions: (1) What is happening to women in scientific careers and what is the role of graduate education? (2) What are the implications for the study of gender? (3) Where can we intervene, and how?

Author Last Name: Fox

Author First Name: Mary Frank

Publication Date: 2001, Oct

Page Numbers: 654-666

Publication Title: Gender & Society

Volume: 15

Issue: 5

Source: Sage

Source Type: Summary, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Cultural Influences](#) » [Gender Diversity](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#)

Women, Science, and Myth: Gender Beliefs from Antiquity to the Present

Resource Title: Women, Science, and Myth: Gender Beliefs from Antiquity to the Present

Description/Annotation: A thorough historical look at women in science, with a history of the concept of gender, a look at gender as it is understood in a variety of disciplines (chemistry, physics, mathematics, etc.), and a section relating to discussions of biological/personality-based differences that have been debated over time.

Author Last Name: Rosser

Author First Name: Sue V.

Publisher: ABC-CLIO

Publisher Location: Santa Barbara, CA

Publication Date: 2008

Source: Google Book Search

Source Type: Available for sale

Resource Type Categories: [Book](#) Topical Categories: [Cultural Influences Cultural Influences » Gender Diversity](#)

Women, work and Web 2.0: a case study New Technology, Work and Employment Women, work and Web 2.0

Resource Title: Women, work and Web 2.0: a case study New Technology, Work and Employment Women, work and Web 2.0

Description/Annotation: This article examines the opportunities and obstacles facing female information technology (IT) professionals holding 'hybrid' or 'mixed skill' positions in the Web 2.0 era. The author presents data from a case study to argue that choices of career pathways, technical skill set, age and experience are factors that affect career progression and job satisfaction in a masculinist culture of computing.

Author Last Name: Bury

Author First Name: Rhiannon

Publication Date: 2010, Nov

Page Numbers: 223-237

Publication Title: New Technology, Work and Employment

Volume: 25

Issue: 3

Source: Wiley

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports Articles/Reports » Journal Articles](#) Topical Categories: [Career Factors Career Factors » EmploymentCareer Factors » Professional Development Career Factors » Retention](#)

Women-Centric Senior Projects for Females in the Computational Sciences Fields

Resource Title:	Women-Centric Senior Projects for Females in the Computational Sciences Fields
Description/Annotation:	This paper presents an approach to teaching a Senior Project course in Computer Science in a way that allows women to educate themselves about health, politics, and other social and well-being issues while at the same time fulfilling the computational, mathematical, and scientific requirements of the course. The Senior Project is a capstone project where students integrate their scientific as well as their software design and implementation knowledge to a real-world problem.
Author Last Name:	Quweider
Author First Name:	Mahmoud
Additional Author:	Iglesias
:	Juan
Additional Author:	De La Vega
:	Katherine
Publication Date:	2010
Publication Title:	ASEE Annual Conference Proceedings
Source:	ASEE
Source Type:	Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Women: Support Factors and Persistence in Engineering

Resource Title:	Women: Support Factors and Persistence in Engineering
Description/Annotation:	This paper discusses the factors that support women in engineering, as well as the factors that attract women to and help them to persist in a career in engineering. The methods consisted of a search of related research to identify factors followed by

qualitative interviews with program persisters and switchers. The most frequently cited factors were: faculty support, class environment, department environment, attraction to another discipline, parental encouragement, and self- confidence.

Author Last Name: Zeng
Author First Name: Yong
Additional Author: Duncan
:
John R.
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Career Factors](#) » [Retention Individual Beliefs and Behaviors](#) » [Self-perception](#)

Women@NASA

Resource Title: Women@NASA
Description/Annotation: Website containing videos of female engineers in various roles at NASA.
Web site Link: [Link to Resource](#)
More: The Women@NASA website was created by the NASA Open Government team in order to encourage transparency, participation, and collaboration and create a new level of openness and accountability at NASA. The Women@NASA project is the perfect opportunity to celebrate women from across the agency who contribute to NASA's mission in many ways.

Resources: Resources include:

- Over 30 videos and essays of women in various roles at NASA
- Internships and career opportunities
- 'More Stories' links to NASA Education portal with resources for students of all ages and educators

Site Access Details: This site is publicly accessible.

Partners and Funding: The Women@NASA website was created in response to the Executive Order, signed March 11, 2009, establishing the White House Council on Women and Girls. Chaired by the heads of every agency and major White House office across the federal government, the Council aims to provide a coordinated federal response to issues that have a distinct impact on women and girls.

Last Update Date: July 9, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Career Factors](#) [Career Factors » Leadership & Management](#) [Career Factors » Professional Development](#)

Women's Health and Women's Leadership in Academic Medicine: Hitting the Same Glass Ceiling?

Resource Title: Women's Health and Women's Leadership in Academic Medicine: Hitting the Same Glass Ceiling?

Description/Annotation: The term "glass ceiling" refers to women's lack of advancement into leadership positions despite no visible barriers. The term has been applied to academic medicine for over a decade but has not previously been applied to the advancement of women's health. This paper discusses (1) the historical medicine, (2) the slow progress of women into leadership in academic medicine, and (3) indicators that the advancement of women's health has stalled. We make the case that deeply embedded unconscious gender-based biases and assumptions underpin the stalled advancement of women on both fronts. We conclude with recommendations to promote progress beyond the apparent glass ceiling that is preventing further advancement of women's health and women leaders. We emphasize the need to move beyond "fixing the women" to a systemic, institutional approach that acknowledges and addresses the impact of unconscious, gender-linked biases that devalue and marginalize women and issues associated with women, such as their health.

Author Last Name: Carnes

Author First Name: Molly

Additional Author: Morrissey

: Claudia

Additional Author: Geller

: Stacie E.

Publication Date: 2008
Page Numbers: 1453-1462
Publication Title: Journal of Women's Health
Volume: 17
Issue: 9
Source: Mary Ann Liebert, Inc. Publishers
Source Type: Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Leadership & Management Career Factors](#) » [Retention Career Factors](#) » [Stereotype Threat](#)

Women's Manufacturing Workshop Series that Supports Inclusiveness and Skill Building in Undergraduate Engineering Education

Resource Title: Women's Manufacturing Workshop Series that Supports Inclusiveness and Skill Building in Undergraduate Engineering Education

Description/Annotation: This paper discusses a Women's Manufacturing Workshop (WMW) series which was piloted during the 2002-03 academic year through a partnership between the Women in Engineering Program (WIEP) and the Integrated Teaching and Learning Laboratory (ITLL). WMW aimed to provide women students a context for pursuing engineering through acquisition of knowledge and skills applicable to the design-build process in a low-risk setting. This paper discusses the effects of the WMW on the students, including an increase for women in their comfort with machining and other hands-on skills, and an increased likelihood that these women will remain in engineering.

Author Last Name: Louie
Author First Name: Beverly
Additional Author: Knight
: Daniel W.
Additional Author: Sullivan
: Jacquelyn F.

Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#)

Women's Perceptions of the Climate in Engineering Technology Programs

Resource Title: Women's Perceptions of the Climate in Engineering Technology Programs

Description/Annotation: Study focusing specifically on women in Engineering Technology comparing their learning preferences to their perceptions of how their engineering programs support their preferences. Authors contrast masculine and feminine learning styles and cultural expectations and relate them to curricula, teaching styles and classroom performance. Research questions included value of competition, faculty support, recognition, peer support, and inclusion.

Author Last Name: Gallaher
Author First Name: Janna
Additional Author: Pearson
:
Publication Date: 2000, Jul
Page Numbers: 309-314
Publication Title: Journal of Engineering Education
Volume: 89
Issue: 3
Source: WCER
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#)

Work and Family Conflict in Academic Science: Patterns and Predictors Among Women and Men in Research Universities

Resource Title: Work and Family Conflict in Academic Science: Patterns and Predictors Among Women and Men in Research Universities

Description/Annotation: This article addresses work-family conflict as reported among women and men academic scientists in data systematically collected across fields in nine US research institutions. The findings have implications for understandings of how marriage and children, senior compared to junior academic rank, and departmental climates shape work-family conflict among women and men in US academic science.

Author Last Name: Fox

Author First Name: Mary Frank

Additional Author: Fonseca

: Carolyn

Additional Author: Bao

: Jinghui

Publication Date: October 2011

Page Numbers: 715-735

Publication Title: Socia Studies of Science

Volume: 41

Issue: 5

Source: Sage Journals

Source Type: Abstract

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Work and Family Researchers Network (WFRN)

Resource Title: Work and Family Researchers Network (WFRN)

Description/Annotation: Founded in 1997, the Sloan Work and Family Research Network at Boston College is the leading online location for information on work and family issues. It provides research gathered from multidisciplinary sources and unbiased policy information to a variety of individuals and organizations interested in work and family issues in the United States.

Web site Link: [Link to Resource](#)

More: The Network serves a global community interested in work and family research by providing resources and building knowledge. Current, credible, and comprehensive, the Network targets the information needs of academics and researchers, workplace practitioners, state public policy makers, and interested individuals. It is the place to find high-quality research and reports, easy-to-read summary sheets and briefs, and work-family topic pages—all in one location.

The Network offers:

- Multidisciplinary, credible teaching resources and access to the world's foremost work-family academics and researchers
- Evidence-based information on cutting-edge workforce issues, talent management, and the impact of work and family issues on business outcomes
- Unbiased policy data about work and family trends, legislation, and statistics

Resources: Extensive resources are available for interested individuals, students, academics, workplace practitioners, state policy makers, advocacy organizations, journalists and writers. Resources include:

- Work and Family News
- Work and Family Literature Database
- Monthly Newsletter
- Work & Family Blog
- Topic Pages
- Network News
- Glossary
- Statistics/Fact Sheets
- Teaching Modules
- Workshops/Class Activities
- Encyclopedia
- Case Studies
- Family-Friendly Employers
- Links

- Policy Briefing Series
- Bills & Statutes Database
- State Profiles

Site Access Details: Free access to the website by the general public.

Partners and Funding: Funding comes exclusively from the Alfred P. Sloan Foundation. The Network has a 9-person Project Team and an 18-person Advisory Committee. Partners are The Center on Aging & Work/Workplace Flexibility at Boston College, Workplace Flexibility 2010 at Georgetown Law Center, and When Work Works at The Families & Work Institute.

Contact Name: Judi Casey, Director

Contact E-mail: wfnetwork@bc.edu

Last Update Date: August 12, 2013

Resource Type Categories: [Website/Portal](#) Topical Categories: [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Assoc and Not for Profits](#)

Work in progress - a design guide to retain female (and male) students in engineering

Resource Title: Work in progress - a design guide to retain female (and male) students in engineering

Description/Annotation: This paper presents a Four-Domain Development Diagram (4DDD) in an attempt to enable a systems approach to managing all the factors that contribute to retention. This diagram makes explicit the connections between the response factors in the learning environment, including motivation, interest, and ultimately retention. Authors report a lower overall net attrition rate (male and female) from freshman year from ~50% to ~20%, seeing a net influx of female students, from numbers as low as 2 of 44 in the entering freshmen cohort to 6 out of 40 (now sophomores) in that same cohort. In this paper, authors present the diagram, briefly introduce the theoretical underpinnings with preliminary quantitative and qualitative data.

Author Last Name: Vanasupa

Author First Name: Linda

Additional Author: Chen

:

Additional Author: Breitenbach

: S.
Additional Author: Bangs
: K.R.
Publication Date: 2008
Page Numbers: T4D-6 - T4D-7
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Retention](#)

Work in progress - A mixed-methods study of the effects of first-year project pedagogies on the motivation, retention, and career plans of women in engineering

Resource Title: Work in progress - A mixed-methods study of the effects of first-year project pedagogies on the motivation, retention, and career plans of women in engineering

Description/Annotation: This paper compares two first-year engineering course project pedagogies to identify approaches that enhance the likelihood of women continuing in engineering majors and entering engineering careers. Specifically, authors compare the problem-based learning (PBL) model to a more general experiential learning approach centered on the engineering design process, referred to here as the traditional engineering design model (TED). Authors hypothesize that the PBL model, with extensive faculty facilitation, will increase the likelihood of women persisting in an engineering degree, achieving higher grades in future classes, and going into engineering careers. This research is grounded in motivational theory, and particularly in a model that integrates aspects of existing theories including participation-identification, expectancy-value, and self-efficacy. Funded by NSF GSE under award #0936704.

Author Last Name: Paretti

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Additional Author: Matusovich
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Additional Author: Moore
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Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder Educational Factors](#) » [Retention](#)

Work in progress - effect of climate and pedagogy on persistence of women in engineering programs

Resource Title: Work in progress - effect of climate and pedagogy on persistence of women in engineering programs

Description/Annotation: This paper seeks to determine how climate and pedagogy affect the persistence of women in undergraduate engineering programs via a longitudinal, multi-institutional, and multivariate study. Authors focus on the nine institutions of the southeastern university and college coalition for engineering education from 1987 to 2004. The study uses three related data sources: the multiple-institution database for investigating engineering longitudinal development (MIDFIELD), two climate surveys, and three teaching practices surveys. This paper introduces the study and present initial results related to our first research question. Funded by NSF GSE under awards #0734085 & #0734062.

Author Last Name: Lord
Author First Name: S.M.
Additional Author: Brawner

: C.E.
Additional Author: Camacho
: M.M.
Additional Author: Layton
: R.A.
Publication Date: 2008
Publication Title: Proceedings of the IEEE/ASEE Frontiers in Education Conference
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Educational Factors](#) » [Pedagogy & Instruction Publications by Funder](#) [Educational Factors](#) » [Retention](#)

Work in progress - engineering students' disciplinary choices: Do race and gender matter?

Resource Title: Work in progress - engineering students' disciplinary choices: Do race and gender matter?

Description/Annotation: This paper explores which engineering disciplines are most effective at attracting undergraduates from various race and gender groups at matriculation and graduation. Women and men choose different disciplines within engineering at matriculation. Industrial Engineering is notable for attracting women and men, and the largest disciplines, Electrical and Mechanical, have the largest enrollment gender gap. Funded by NSF GSE under award #0734062 & #0734085.

Author Last Name: Lord
Author First Name: S.M.
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Additional Author: Camacho
: M.M.

Additional Author: Layton
:
Publication Date: 2009
Page Numbers: 1-2
Publication Title: Frontiers in Education Conference
Volume: 39th
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gendered Occupations & Study Choices](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work in progress - gender and preconceptions of undergraduate computer science

Resource Title: Work in progress - gender and preconceptions of undergraduate computer science

Description/Annotation: This paper discusses a qualitative study of pre-major undergraduates enrolled in an introductory computer science course. Analysis of ongoing interviews suggests potential themes in student perceptions of computer science, its attractive and unattractive features, and the sources of these preconceptions. The paper also examines the effectiveness of recruitment programs in challenging popular, negative stereotypes of computer science.

Author Last Name: Yasuhara
Author First Name: Ken
Publication Date: 2005
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work in progress - gender parity success in the Civil Engineering department at Kuwait University

Resource Title: Work in progress - gender parity success in the Civil Engineering department at Kuwait University

Description/Annotation: This paper discusses a pilot study investigating the local factors contributing to the Civil Engineering Department gender parity at Kuwait University. A survey of 104 undergraduates revealed that 64.4 percent of the study sample thought that there was inequality in treatment between genders, of them 56.7 percent thought that males were treated better. The study also found that females perceive Civil Engineering as a very interesting field.

Author Last Name: Al-Fares

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Additional Author: Al-Abdulmuhsen

: L.A.

Publication Date: 2008

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Cultural Influences](#) [Educational Factors](#) [Cultural Influences](#) » [Gender Diversity](#)

Work in progress - providing support and leadership experiences for women at the University of Texas at El Paso through a Women in Science and Engineering program

Resource Title: Work in progress - providing support and leadership experiences for women at the University of Texas at El Paso through a Women in Science and Engineering program

Description/Annotation: This paper discusses the Women in Science and Engineering (WiSE) program at the University of Texas at El Paso (UTEP). Since its inception in 2001, the WiSE program has focused on providing support for female undergraduates at UTEP in the form of semester stipends and community/university outreach activities. This paper discusses the WiSE initiative, including membership profiles, retention and graduation rates, current and future outreach activities, and plans for institutionalization.

Author Last Name: Arciero

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Additional Author: Flores

:

Additional Author: Renner

:

Publication Date: 2005

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Career Factors](#) » [Leadership & Management](#) [Diversity Orgs & Pgms for Women and Girls](#) » [STEM/Diversity](#) [University Programs](#)

Work in progress - reexamining the problem of engineering persistence for African-American female students

Resource Title: Work in progress - reexamining the problem of engineering persistence for African-American female students

Description/Annotation: This paper describes a mix-method study designed to examine the experiences and factors that influence African-American female students' decision to leave engineering degree programs for other academic majors. Using the Students Leaving Engineering

Instrument developed by the Assessing Women in Engineering (AWE) project, data is being collected from female students who entered Prairie View A&M University, a historically black university, as freshman engineering, computer science or technology majors during the 2003, 2004, and 2005 academic years, but have subsequently switched to other degree programs. The factors being examined include initial commitment and preparation for studying engineering, confidence in completing an engineering degree program, course workload and institutional climate, relationships with faculty and peers, and financial concerns.

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: F.M.
Publication Date: 2008
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate Educational Factors Educational Factors](#) » [Faculty Student Interaction Educational Factors](#) » [Retention](#)

Work in progress - the effect of engineering matriculation status on major selection

Resource Title: Work in progress - the effect of engineering matriculation status on major selection

Description/Annotation: This study focuses on how the approach to engineering matriculation affects choice of major. Using the eight institutions represented in the Multiple-Institution Database for Investigating Engineering Longitudinal Development, we compared the majors at matriculation and at the third semester of 1) students who are directly admitted to a discipline 2) students who enter mandatory first-year engineering programs and 3) those who enter colleges of engineering without specifying a major preference. Preliminary findings indicate that students in formal FYE programs are more

likely than the direct admits to choose Mechanical, Civil, Computer, and Industrial engineering and less likely to choose Chemical, Electrical, or Materials engineering as their first major. Students who enter as engineering undesignated are more likely to choose Civil, Industrial, and Other engineering and less likely to choose Mechanical, Electrical, Computer, and Materials engineering as their first major than direct admits. Funded by NSF GSE under award #0734085.

Author Last Name: Brawner
Author First Name: C.E.
Additional Author: Camacho
: M.M.
Additional Author: Long
: R.A.
Additional Author: Lord
: S.M.
Publication Date: 2009
Page Numbers: 1-2
Publication Title: Proceedings of the 2009 Frontiers in Education Conference
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder Educational Factors](#) » [Retention](#)

Work in progress - using case studies to increase the retention of female doctoral students in STEM Fields

Resource Title: Work in progress - using case studies to increase the retention of female doctoral students in STEM Fields

Description/Annotation: This paper discusses part of the NSF funded project, CareerWISE, which employs internet-delivered resilience training to increase the persistence of Women Ph.D. Students in STEM Fields. The differences between the types of case studies traditionally used in

science and engineering courses and the CareerWISE case studies are discussed, along with the plans for evaluating and integrating the cases with the other pieces of the CareerWISE project.

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Additional Author: Ellison
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Additional Author: Sridharan
:
Publication Date: 2008
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Educational Factors](#) » [Informal Academic Preparation](#) [Educational Factors](#) » [Retention](#)

Work in progress - Why many smart women leave engineering: A preliminary study of how engineering students form career goals

Resource Title: Work in progress - Why many smart women leave engineering: A preliminary study of how engineering students form career goals

Description/Annotation: This study examined how undergraduate engineering students form career goals. Preliminary analysis of the qualitative data provided evidence that for both men and women, out-of class experiences such as internships, design projects, and participation in student organizations tended to increase engagement and commitment to engineering as a profession.

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Additional Author: R.M. Korte
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Additional Author: R.F. Larson
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Additional Author: S.M. Loui
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Additional Author: M.C.
Publication Date: 2010
Publication Title: Frontiers in Education Conference
Source: IEEE
Source Type: Abstract, Full Text Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Career Factors](#) » [Organizational Culture](#)

Work in progress - women in technology: An initiative to reach females in rural Wisconsin

Resource Title: Work in progress - women in technology: An initiative to reach females in rural Wisconsin

Description/Annotation: This paper describes Women in Technology (WIT), a collaboration program model providing opportunities to explore and pursue STEM education and careers to increase and sustain the economic vitality of rural Wisconsin. Agricultural, manufacturing, health and service industries in rural Wisconsin are increasingly requiring more technically adept and trained employees. As women are under represented in STEM careers it is therefore critical to educate women about careers that create a professional employment base, contribute to a diverse labor force and provide life sustaining wages and personal satisfaction for women. Forming partnerships with industry, educational, youth serving and professional organizations is a key strategy to the program's success and sustainability. Women in Technology works to deliver best practices program models such as

mentoring, hands-on programs, scholarships, role-modeling and career exploration for females from middle school through university including technical colleges which often serve non-traditional students.

Author Last Name: Bloor
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Publication Date: 2007
Page Numbers: S2H-14 - S2H-15
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Educational Factors](#) » [Retention](#) [Career Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work In Progress – Do Women Score Lower Than Men on Computer Engineering Exams?

Resource Title: Work In Progress – Do Women Score Lower Than Men on Computer Engineering Exams?

Description/Annotation: This paper examines whether women earn lower exam scores than men and whether Dweck's model of self-theories explains the difference. Dweck proposed two categories for individuals' beliefs about intelligence: incremental theories and entity theories. Dweck found that women are more likely to be entity theorists than men. This study found that the difference between exam averages between women and men, and between entity and incremental theorists were not statistically significant.

Author Last Name: Liao

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Additional Author: Loui
: Michael C.
Publication Date: 2005
Publication Title: Frontiers in Education Conference (FIE)
Source: University of Illinois at Urbana-Champaign
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical
Categories: [Educational Factors](#) [Educational Factors](#) » [Stereotype Threat on Testing](#)

Work in Progress – Taking One for the Team: Goal Orientation and Gender-Related Task Division

Resource Title: Work in Progress – Taking One for the Team: Goal Orientation and Gender-Related Task Division

Description/Annotation: This paper discusses assessments of student behavior in first semester design experiences which suggest that early team-based design projects can promote a team performance goal orientation that undermines students' learning goals. In particular, researchers find that gender-related division of work can easily and unconsciously occur in these teams and that performance-oriented teams may be more likely to undermine women's learning goals than men's learning goals. Authors propose mechanisms to explain the effect and present results of promising interventions.

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Publication Date: 2010

Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Work in progress — A practical model for achieving gender parity in undergraduate computing: Change the system, not the student

Resource Title: Work in progress — A practical model for achieving gender parity in undergraduate computing: Change the system, not the student

Description/Annotation: This paper presents a systemic change model of undergraduate computing for accomplishing gender parity. Rather than view women as needing to be modified or repaired to fit the system, this model advocates changing the system to fit the needs of a wider range of students. Changing the system is a more sustainable approach to creating gender parity than providing extra support to students with less experience or background or students who are less likely to feel that people like themselves belong in computing. The systemic change model is founded in research specific to computing education, research on undergraduate retention in general, research on conceptions and misconceptions of computing careers, and research, theory, and practices of communication. The parts of the model and examples of practices that can change the system in ways consistent with research are presented. Funded by NSF CNS under award #0413538 & NSF GSE under award #0533580.

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Additional Author: Thompson
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Publication Date: 2010

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) Topical Categories: [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-CISE-CNS Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#) [Educational Factors](#) » [Retention](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work in progress — Flexibility and career opportunity as motivation for women selecting industrial engineering majors

Resource Title: Work in progress — Flexibility and career opportunity as motivation for women selecting industrial engineering majors

Description/Annotation: This work in progress explores qualitatively why women choose to major in industrial engineering and remain there. Through two focus groups with undergraduate women industrial engineering majors at an historically black university and a predominantly white institution, authors found the following primary themes: students chose their institution for its reputation; students chose to major in industrial engineering because they believed it a) was less technical and more like business, b) had a wide range of job opportunities and c) offered the chance to work more with people; students remained in their major because of the caring and passionate faculty in their departments. Funded by NSF GSE under award #0734085 & 0734062.

Author Last Name: Brawner

Author First Name: C.E.

Additional Author: Frillman

: S.A.

Additional Author: Lord

: S.M.

Additional Author: Ohland

: M.W.

Publication Date: 2010

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Faculty Student Interaction](#) [Individual Beliefs and Behaviors](#) [Publications by Funder](#) » [NSF-HRD-GSE](#) [Publications by Funder](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work in progress — Tracking the success of African American women undergraduates majoring in engineering

Resource Title: Work in progress — Tracking the success of African American women undergraduates majoring in engineering

Description/Annotation: This paper discusses the progress of African American women toward undergraduate degrees in any of the engineering disciplines. This work in progress examines the following questions: 1) What are the women's reasons for selecting engineering? 2) Having chosen to remain in engineering, what strategies are assisting them in their efforts to succeed and excel? And 3) What are the issues that are of special concern to them as African American women who have chosen a field of study that has traditionally been viewed as overwhelmingly White and male?

Author Last Name: Frillman

Author First Name: S.A.

Additional Author: Brawner

: C.E.

Additional Author: Waters

: C.

Publication Date: 2010

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#)

Work in progress — Women in Computing Honors Course

Resource Title: Work in progress — Women in Computing Honors Course

Description/Annotation: This paper presents the author's experience in teaching an Honors course, Women in Computing, that was offered for the first time

in Fall 2009. The course is cross listed with Women's Studies and provides Honors students with interdisciplinary experience. This course provides an opportunity for students to learn about pioneering women of computing and their contribution into computing field, as well as modern trends and modern gender issues in computer science. The course also introduces students to the world of computing by linking various computer science concepts to the specific contribution.

Author Last Name: Kortsarts
Author First Name: Y.
Publication Date: 2010
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Curriculum](#) [Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

Work in progress- a study of how real world engineering experience can affect women's academic career

Resource Title: Work in progress- a study of how real world engineering experience can affect women's academic career

Description/Annotation: Growing evidence has suggested that industry-sponsored project experience, where the student is paid, can provide students with a real-world perspective that enhances the students' academic experience. This experience is particularly valuable for female students because women may have less real-world exposure to applications in their chosen career path compared to their male counterparts. Sometimes internship experiences can be a negative experience for female students. The working hypothesis of this paper is that internship experiences have the potential to affect female students more than male students, both positively and negatively. The focus of this paper is to determine if there are significant gender differences resulting from students' internship

experience on academic performance and attitudes about their future career choice.

Author Last Name: Walter
Author First Name: D.
Additional Author: Xiaoyan
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Additional Author: Berry
:
Publication Date: 2008
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Professional Development](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Work in progress: A STEM educational outreach day for young females

Resource Title: Work in progress: A STEM educational outreach day for young females

Description/Annotation: This paper discusses an outreach day at Duke University called FEMMES (females excelling more in math, engineering, and science). FEMMES is an annual free, one-day event, which provides an exciting, hands-on experience for 4th-6th grade girls to encourage them to further explore their potential in these fields. To assess the program's effectiveness, surveys were completed by participants before and after the event.

Author Last Name: Weston
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: H.
Publication Date: 2008
Publication Title: Frontiers in Education Conference (FIE)
Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports » Conference Papers/Proceedings](#) [Topical Categories: Diversity Orgs & Pgms for Women and Girls](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors » STEM Career Interest/Awareness](#) [Diversity Orgs & Pgms for Women and Girls » STEM/Diversity Outreach Programs](#)

Work-Life Spillover and Job Satisfaction of Married/Partnered Faculty Members

Resource Title: Work-Life Spillover and Job Satisfaction of Married/Partnered Faculty Members

Description/Annotation: This study analyzes questionnaire data gathered from married or partnered, tenured and tenure-track faculty at a research university to identify personal, institutional, and nonwork factors that explain perceptions about work-life spillover and, secondly, the relationship of spillover, personal, institutional, and nonwork factors to overall job satisfaction. A combination of personal and environmental climate variables explained 48% of the variance in work-life spillover and 60% of the variance in job satisfaction. A direct, positive relationship was found between work-life spillover and job satisfaction. Findings challenge conceptions of work-life spillover as a negative dimension of faculty life.

Author Last Name: Amelink
Author First Name: Catherine T.
Additional Author: Creamer
: Elizabeth
Publication Date: 2007
Page Numbers: 317-332

Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 13
Issue: 4
Source: Begell House
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#) [Career Factors](#) » [Organizational Culture](#)

Work-Life: Prevalence, Utilization, and Benefits

Resource Title: Work-Life: Prevalence, Utilization, and Benefits
Description/Annotation: A 7 page overview of statistics related to work-life balance, gathered from multiple organizations and government agencies. Includes statistics on flexibility in working arrangements, child care, elder care, dual-career couples, and benefits to organizations. Excellent information for benchmarking or for highlights for presentations on work-life balance. For industry and the workforce.
Author Last Name: Catalyst
Publisher: Catalyst
Publisher Location: New York, NY
Publication Date: 2009, Mar 16
Page Numbers: 1-7
Source: Catalyst
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) » [Web Resources](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Family Issues](#)

Workplace Culture that Hinders and Assists the Career Development of Women in Information Technology

Resource Title: Workplace Culture that Hinders and Assists the Career Development of Women in Information Technology

Description/Annotation: This study examines both the positive and negative roles that workplace culture plays in the career development of women in information technology (IT). The literature has described the IT workplace culture as having certain characteristics that are unique to the industry and unique to White male culture.

Author Last Name: Wentling

Author First Name: Rose Mary

Additional Author: Thomas

: Steven

Publication Date: 2009, Mar

Page Numbers: 25

Publication Title: Information Technology, Learning, and Performance Journal

Source: EBSCO

Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#)

Workplace Environment is Prime Reason Women Leave Engineering

Resource Title: Workplace Environment is Prime Reason Women Leave Engineering

Description/Annotation: The article from SWE Magazine summarizes a study titled "Stemming the Tide: Why Women Leave Engineering" made possible by a National Science Foundation grant. The study disclosed that women with engineering degrees leave their field because of inhospitable work environment. The money and effort channeled to encourage women to pursue engineering are reportedly undermined by the workplace culture.

Author Last Name: Guy

Author First Name: Sandra

Publisher: Society of Women Engineers (SWE)

Publisher Location: Washington, DC
Publication Date: 2011, Jun
Page Numbers: 10-12
Publication Title: SWE Magazine
Volume: 57
Issue: 3
Source: SWE
Source Type: Full Text, Digital Version

Resource Type Categories: [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) Topical
Categories: [Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Retention](#)

Workplace Environments that Hinder and Assist the Career Progression of Women in Information Technology

Resource Title: Workplace Environments that Hinder and Assist the Career Progression of Women in Information Technology

Description/Annotation: The purpose of this study was to develop an understanding of the workplace environment characteristics that hinder and assist the career progression of women in information technology. The findings revealed that the workplace environment and culture characteristics identified by the women in information technology have both positive and negative aspects. This study examined both the positive and negative roles that workplace environment and culture play in the career development of women in information technology.

Author Last Name: Cordova-Wentling
Author First Name: Rose Mary
Additional Author: Thomas
:
Steven
Publication Date: 2007
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE

Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Career Factors](#) » [Organizational Culture](#) [Career Factors](#) » [Professional Development](#)

Workshop Classroom Border Crossings: Incorporating Feminist and Liberative Pedagogies in your CSET Classroom

Resource Title: Workshop Classroom Border Crossings: Incorporating Feminist and Liberative Pedagogies in your CSET Classroom

Description/Annotation: This paper describes a workshop in which participants explore the use of feminist and liberative pedagogies in CSET classrooms. These pedagogies are founded on the ideals of social justice and democracy. The workshop will include discussions of classroom management strategies, critiques and redesign of the engineering process, and assessment and evaluation of student learning. Participants will leave the workshop with a list of concrete ideas for implementing feminist and liberative pedagogies and an annotated bibliography of helpful references.

Author Last Name: Waller

Author First Name: A.A.

Additional Author: Riley

:

Additional Author: Cashman

:

Additional Author: Eschenbach

:

Additional Author: Lord

:

Publication Date: 2006

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE

Source Type: Abstract, Available for Sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) [Educational Factors](#) » [Pedagogy & Instruction](#)

World-Wide Technical Internship Program: A Model to Advance Women in a Customer Support Career

Resource Title: World-Wide Technical Internship Program: A Model to Advance Women in a Customer Support Career

Description/Annotation: The IBM Customer Support Internship Program (CSIP) in Texas encourages women to pursue technical Customer Support roles through mentored intern rotations available worldwide.

Author Last Name: Zimmer

Author First Name: Linda

Additional Author: Roy

: Suparna

Publisher: WEPAN (Proc. of the 2008 WEPAN National Conference)

Publication Date: 2008

Page Numbers: 7

Source: WEPAN

Source Type: Full text

Resource Type Categories: [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors](#) [Diversity Orgs & Pgms for Women and Girls](#) [Diversity Orgs & Pgms for Women and Girls](#) » [Industry Career Factors](#) » [Mentoring](#) [Career Factors](#) » [Professional Development](#)

WSKC Connections Newsletter: Thought Leader Interview Series

Resource Title: WSKC Connections Newsletter: Thought Leader Interview Series

Description/Annotation: The WSKC Connections Newsletter is a quarterly publication for anyone interested in news and resources that support the gender equity in STEM community. In each newsletter, a thought leader in

the STEM community is interviewed by WEPAN members to gather their insights into their career and current work.

Web site Link: [Link to Resource](#)

More: [Subscribe to the WSKC Connections newsletter.](#)

Resources: Interviews with STEM Thought Leaders are published quarterly in the WSKC Connections newsletter and are available on the website.

Site Access Details: All Thought Leader Interviews are publicly accessible. We encourage you to share them with your peers.

Partners and Funding: The WSKC Connections newsletter is a WEPAN publication.

Contact Name: Ceal Craig

Contact E-mail: CealCraig@Druai.com

Last Update Date: Feb 26, 2014

Resource Type Categories: [Interviews](#) [Articles/Reports](#) » [Media \(Newspapers, Magazines\)](#) [Topical Categories: Career Factors Cultural Influences Cultural Influences](#) » [Gender Diversity Career Factors](#) » [Leadership & Management](#)

You Can Be Anything – Women and Technology Video

Resource Title: You Can Be Anything – Women and Technology Video

Description/Annotation: This paper discusses a video produced by the Center for Women and Information Technology (CWIT) at the University of Maryland Baltimore County (UMBC) and funded through the National Science Foundation. CWIT sought to develop a video that would use the power of media to give young people, particularly girls and young women, a very positive impression of the career opportunities for women that are now available in all fields. Further, the video would focus on the importance of learning about and using all kinds of technology, no matter what the career direction, as it will play a major role in any career path in the future.

Author Last Name: Morrell

Author First Name: Claudia

Additional Author: Spence

: Anne

Additional Author: Bayles
:
Additional Author: Shewbridge
:
Publication Date: 2004
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Cultural Influences Individual Beliefs and Behaviors Cultural Influences » Media & Entertainment Individual Beliefs and Behaviors » STEM Career Interest/Awareness

You've Come a Long Way: Data on Women Doctoral Scientists and Engineers in Research Universities

Resource Title: You've Come a Long Way: Data on Women Doctoral Scientists and Engineers in Research Universities

Description/Annotation: Book chapter examining the career outcomes of men and women in research universities in engineering and science. Evaluates how status of women receiving Ph.D.s in the 1960s, 1970s, 1980s and early 1990s has changed over time for years 1973, 1979, 1989, and 1995.

Author Last Name: Kuh
Author First Name: Charlotte V.
Publisher: Kluwer Academic/Plenum Publishers
Publisher Location: New York, NY
Publication Date: 2003
Page Numbers: 111-144
Publication Title: Equal Rites, Unequal Outcomes: Women in American Research Universities
Source: Springer
Source Type: Abstract, Available for sale

Resource Type Categories: [Data and Statistics](#) » [Reports](#) Topical Categories: [Career Factors](#) [Career Factors](#) » [Employment](#) [Career Factors](#) » [Salary](#)

Young girls' arithmetic and spatial skills: The distal and proximal roles of family socioeconomics and home learning experiences

Resource Title: Young girls' arithmetic and spatial skills: The distal and proximal roles of family socioeconomics and home learning experiences

Description/Annotation: This study addressed girls' early numerical and spatial reasoning skills, within the context of a critical environment in which these cognitive skills develop, namely their homes. Specifically, proximal links between distal family socioeconomic conditions and first-grade girls' arithmetic and spatial skills were examined. The proximal roles of two factors were considered: the general learning characteristics of girls' homes, and the kinds of math and spatial learning activities in which girls participated. General quality of the home learning environment and specific math activities mediated the relation between family socioeconomics and girls' arithmetic skills. In contrast, socioeconomics and home learning experiences were related to girls' spatial skills indirectly only through their verbal skills; spatial activities were not proximal predictors of spatial skills. For both arithmetic and spatial skills, mothers' spatial skills were a strong predictor. Future research and intervention implications of these findings are discussed. Funded by NSF GSE under award #0827155.

Author Last Name: Dearing

Author First Name: Eric

Additional Author: Casey

: Beth M.

Additional Author: Ganley

: Colleen M.

Additional Author: Tillinger

: Miriam

Additional Author: Laski

: Elida

Publication Date: 2012
Page Numbers: 458-470
Publication Title: Early Childhood Research Quarterly
Volume: 27
Issue: 3
Source: Science Direct
Source Type: Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) [Topical](#)
Categories: [Cultural Influences](#) [Cultural Influences](#) » [Family Publications by Funder](#) » [NSF-HRD-GSE Publications by Funder](#)

Young Women in Science: Impact of a Three-Year Program on Knowledge of and Attitudes Toward Science

Resource Title: Young Women in Science: Impact of a Three-Year Program on Knowledge of and Attitudes Toward Science

Description/Annotation: Addressing the factors that discourage high school girls from pursuing careers in science, this intervention targeted young women from rural Appalachia, urging them to pursue scientific careers in drug and alcohol research. This three-year program, for 49 young women entering ninth grade in 12 southeastern Kentucky counties, included a summer camp, Saturday Academies (educational seminars held in their communities), and mentoring by university faculty and community leaders.

Author Last Name: Schumacher

Author First Name: Mitzi M.

Additional Author: Johnson

: Michelle Natasya

Additional Author: Floyd

: Sondra R.

Additional Author: Reid

: Caroline E.

Additional Author: Noland
:
Melody Powers
Publication Date: 2008
Page Numbers: 301-317
Publication Title: Journal of Women and Minorities in Science and Engineering
Volume: 14
Issue: 3
Source: Begell House
Source Type: Abstract, Full Text Available For Sale

Resource Type Categories: Articles/Reports Articles/Reports » Journal Articles Topical
Categories: Diversity Orgs & Pgms for Women and Girls Individual Beliefs and Behaviors Individual
Beliefs and Behaviors » STEM Career Interest/Awareness Diversity Orgs & Pgms for Women and Girls »
STEM/Diversity Outreach Programs

Young Women in Science

Resource Title: Young Women in Science
Description/Annotation: A 42 page booklet with profiles of young women from around the world in science professions. Encouraging girls to get interested in science fields by showing them stories of other women and the specialty fields they work in and why they enjoy it. For girls, their parents, and their teachers.
Author Last Name: Sanders (ed.)
Author First Name: Sean
Publisher: American Association for the Advancement of Science (AAAS) and L'Oreal Corporate Foundation
Publisher Location: Washington, D.C.
Publication Date: 2009
Page Numbers: 1-42
Source: AAAS
Source Type: Full text

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Young Women, Sports, and Science

Resource Title:	Young Women, Sports, and Science
Description/Annotation:	This article examines young women's access to two traditionally male domains, sport and science, from two perspectives. Data from the nationally representative High School and Beyond (HSB) and National Educational Longitudinal Study (NELS) were used to explore the relationship between involvement in sports and success in science for high school aged women. Findings suggest that sports participation provides a unique resource for young women especially with regard to science attitudes and access (course-taking).
Author Last Name:	Hanson
Author First Name:	Sandra L.
Publication Date:	2007
Page Numbers:	155-161
Publication Title:	Theory Into Practice
Volume:	46
Issue:	2
Source:	Taylor and Francis
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Journal Articles](#) Topical Categories: [Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

Your Career OnRamp

Resource Title:	Your Career OnRamp
Description/Annotation:	An easy read with a 10-step plan for women rejoining the workforce after off-ramping for family or personal reasons. Includes setting your framework, building your network, interviewing and negotiating your new job. For women returning

to the workplace after taking time off from their career and corporate leadership hiring them back.

Author Last Name: Clifford
Author First Name: Catherine
Publisher: Wyatt MacKenzie
Publisher Location: Deadwood, OR
Publication Date: 2008, Apr
Page Numbers: 1-116
Source: Amazon
Source Type: Available for sale

Resource Type Categories: [Guide/Handbook](#) Topical Categories: [Career Factors](#) [Career Factors » Family Issues](#) [Career Factors » Professional Development](#) [Career Factors » Retention](#)

Youth and Science: Engaging Adults as Advocates

Resource Title: Youth and Science: Engaging Adults as Advocates

Description/Annotation: This study documents how adult female volunteers, historically inexperienced and/or excluded from traditional practices of science, come to engage in science activities through an informal, museum- and community-based context that helps them to appreciate science connections that are ultimately empowering. Such informal contexts, often thought to be marginal to prevailing educational beliefs and practices, can offer adults outside of the fields of science and education an entry into science learning and teaching, facilitating participation in legitimate and empowering ways. The focus is on three adult female members' unique trajectories of participation, leading to sustained commitment and contribution, or "core member status." Each draws on different aspects of the program that she finds most salient, illustrating how different elements can serve as motivators for initial engagement, and can support continuation along the trajectory of participation in an informal science program for girls. Funded by NSF GSE under award #0436249.

Author Last Name: McCreedy
Author First Name: Dale
Publication Date: 2010, Jan

Page Numbers: 158-176
Publication Title: Curator: The Museum Journal
Volume: 48
Issue: 2
Source: Wiley
Source Type: Abstract, Available for sale

Topical Categories: Educational Factors Educational Factors » Faculty Student Interaction Educational Factors » Informal Academic Preparation

Zero to 36% in Thirty Years – A History of Female Undergraduates at Caltech

Resource Title: Zero to 36% in Thirty Years – A History of Female Undergraduates at Caltech

Description/Annotation: This study examines the steady increase in female undergraduate enrollment at Caltech. The nature of this increase, the driving factors behind it, and the portion of the female population in engineering at the Institute over time are investigated and compared to both total Institute population and national norms. The author hopes to quantify the enrollment gains for undergraduate women at Caltech, to determine whether the increases have been homogenous across fields of study, and also to detail what mechanisms have been employed by the Institute in order to encourage more women to enroll.

Author Last Name: Mullenax
Author First Name: Carol
Publication Date: 2003
Publication Title: ASEE Annual Conference & Exposition
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Educational Factors](#) [Educational Factors](#) » [Retention](#)

‘Nuts and Bolts and People’: Gender-Troubled Engineering Identities

Resource Title:	‘Nuts and Bolts and People’: Gender-Troubled Engineering Identities
Description/Annotation:	This ethnographic study of building design engineers uses interviews with engineers to explore the definition of engineering as "nuts and bolts and people", addressing the two aspects of engineering: the technical and the social. The two are qualitatively blended together to explore where the line between these two aspects occurs.
Author Last Name:	Faulkner
Author First Name:	Wendy
Publication Date:	2007, Jun
Page Numbers:	331-356
Publication Title:	Social Studies of Science
Volume:	37
Issue:	3
Source:	Sage
Source Type:	Abstract, Available for sale

Resource Type Categories: [Articles/Reports](#) » [Journal Articles](#) [Topical Categories: Educational Factors](#) » [Academic & Social Climate](#) [Career Factors](#) [Educational Factors](#) [Individual Beliefs and Behaviors](#) [Career Factors](#) » [Organizational Culture](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

“It kind of chose me”: Agency and Influence in Women’s Decisions to Major in Engineering

Resource Title:	“It kind of chose me”: Agency and Influence in Women’s Decisions to Major in Engineering
Description/Annotation:	This paper explores the attraction of students to engineering in a private liberal arts college for women. The authors investigate

how expressions of agency are embedded in narratives that often explicitly underscore the influence of others.

Author Last Name: Jafee
Author First Name: Eleanor M.
Additional Author: Riley
:
Donna
Publication Date: 2010
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Individual Beliefs and Behaviors](#) [Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

“Naming the Complexity”: Women’s Experience and the Holistic Assessment of Technology

Resource Title: “Naming the Complexity”: Women’s Experience and the Holistic Assessment of Technology

Description/Annotation: This paper focuses on a little known account of the impact of technology on women, which was authored by the German feminist Louise Otto (1819-1895). Otto was a journalist, poet, novelist, social activist, and an astute observer and a skillful rhetorician. Her book "The Life of Women in the German Empire" (1876) provides a model of an holistic approach to the assessment of technology and furnishes guidance as to how we can grasp yet still manage the complexity involved in the assessment. She also provides a model for the assessment of new technology in her insistence that it be evaluated in light of social ideals, that is, in light of our vision of where we want to go as a society and as individuals.

Author Last Name: Townsend
Author First Name: Ingrid H. Soudek
Additional Author: Neeley
:
Kathryn A.

Publication Date: 2000
Publication Title: ASEE Annual Conference Proceedings
Source: ASEE
Source Type: Full Text

Resource Type Categories: [Articles/Reports](#) [Articles/Reports](#) » [Conference Papers/Proceedings](#) [Topical Categories: Career Factors Cultural Influences Cultural Influences](#) » [Gendered Occupations & Study Choices Individual Beliefs and Behaviors Career Factors](#) » [Professional Development Individual Beliefs and Behaviors](#) » [STEM Career Interest/Awareness](#)

“Thinking inside of the box”: retention of women in engineering

Resource Title: “Thinking inside of the box”: retention of women in engineering

Description/Annotation: The paper describes an effort at Penn State Altoona to address the issue of low retention of women in science and engineering. This effort also was designed to contribute to the long-term advancement of women in these fields throughout their careers. The approach taken is to challenge women students to recognize their beliefs and self perceptions regarding their relationship with engineering and thus provide them with the opportunity for positive change. As a consequence, their actions have potential to change stereotypical attitudes towards women in the sciences. The particular method authors chose to accomplish these goals is to design and teach a course to educate women in the area of computer problem diagnosis and repair. The course includes diagnosing and troubleshooting software and hardware problems, and upgrading and maintaining the systems, as well as an introduction to component functionality and integration. Demonstration of the proficiency attained by the women in computer technology distinguishes them among colleagues.

Author Last Name: Shull

Author First Name: P.J.

Additional Author: Weiner

: M.D.

Publication Date: 2000

Publication Title: Frontiers in Education Conference (FIE)

Source: IEEE
Source Type: Abstract, Available for sale

Resource Type Categories: Articles/Reports Articles/Reports » Conference Papers/Proceedings Topical Categories: Career Factors Individual Beliefs and Behaviors Career Factors » Retention Individual Beliefs and Behaviors » Self-perception

¿Por qué las jóvenes deberían considerar una carrera en tecnología de la información?

Resource Title: ¿Por qué las jóvenes deberían considerar una carrera en tecnología de la información?

Description/Annotation: This resource from the National Center for Women & Information Technology (NCWIT) is the Spanish version of "Why Should Young Women Consider a Career in Information Technology?" This card, presented in PDF format, provides several points to begin a discussion about the importance of women in Information Technology. The points include "what you should tell a young woman about a career in IT," and "how can a young woman prepare now for a career and IT?"

Author Last Name: Barker

Author First Name: Lecia

Additional Author: Ashcraft

: Catherine

Publisher: NCWIT

Publisher Location: Boulder, CO

Publication Date: 2009, Mar

Page Numbers: 1-2

Source: NCWIT

Source Type: Full Text

Resource Type Categories: Guide/Handbook Topical Categories: Educational Factors Individual Beliefs and Behaviors Educational Factors » Retention Individual Beliefs and Behaviors » STEM Career Interest/Awareness