



TECAID

Transforming Engineering Culture
To Advance Inclusion And Diversity

Examples of High Impact Practices for Advancing Student and Faculty Diversity, Equity, & Inclusion

Enhancing the Success of Diverse Students

These high-impact practices were originally defined by George D. Kuh (2008) based on results from the National Survey of Student Engagement (NSSE) as those practices that have a significant impact on student success, particularly for students from underserved populations. More recent studies have provided details regarding the impact of these practices on students from underrepresented minority (URM) populations, such as Hispanic, African American, or first-generation students (Kuh and O'Donnell 2013; Finley and McNair 2013). These publications provide detailed analysis on the impact of these practices as well as tools for planning, implementing, and assessing HIPs on campus. With creative planning by faculty members and campus leaders, all of these practices can be tailored to STEM learning environments and programs. (Elrod & Kezar, 2016)

(Elrod & Kezar, 2016--AAC&U [Increasing Student Success in STEM](#))

- First-year experience/seminar
- Common intellectual experiences
- Collaborative assignments and projects
- Diversity/global learning experiences
- Service learning/ community-based learning
- Learning communities
- Writing-intensive courses
- Internships
- Undergraduate research

Faculty Practices for Supporting Diverse Students

- The Center for Research on Learning and Teaching: [Inclusive Teaching Resources and Strategies](#)
- The Center for Research on Learning and Teaching in Engineering: [Annotated Bibliography](#)
- Killpack, T. L., & Melón, L. C. (2016). Toward Inclusive STEM Classrooms: What Personal Role Do Faculty Play? *CBE Life Sciences Education*, 15(3), es3. <http://doi.org/10.1187/cbe.16-01-0020>

Enhancing the Success of Diverse Faculty

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.

(Laursen & Austin, 2014)

(Laursen & Austin, 2014—StratEGIC [Strategies for Effecting Gender Equity and Institutional Change](#))

The 13 **Strategic Intervention Briefs** each examines one type of strategic intervention that has been frequently used in ADVANCE initiatives. These interventions are not "one size fits all"—rather, the Briefs offer detailed information that will enable you to assess whether and how this intervention will be strategically useful to your institution as part of an overall change portfolio. The intent and structure of the Briefs will be most clear if you first read the concise introduction in the [StratEGIC Users' Guide](#).

The 15 **Institutional Portfolios** describe how different institutions combined interventions—such as those described in the Briefs—into an overall change portfolio. The Institutional Portfolios offer real examples of how project teams identified core problems for STEM women faculty on their campus; chose, designed and implemented interventions to address these problems; and assessed their success. All the Portfolios come from research on institutions funded in Rounds 1-2 of ADVANCE IT (funded 2001-04). The intent and structure of the Portfolios will be most clear if you first read the concise introduction in the [StratEGIC Users' Guide](#).

Strategic Intervention Briefs

4-7 pages

1. [Faculty professional development programs](#)
2. [Grants to individual faculty](#)
3. [Mentoring and networking activities](#)
4. [Development of institutional leaders](#)
5. [Inclusive recruitment and hiring](#)
6. [Equitable processes of tenure and promotion](#)
7. [Strengthened accountability structures](#)
8. [Flexible work arrangements](#)
9. [Practical family-friendly accommodations](#)
10. [Support for dual-career couples](#)
11. [Strategies for improving departmental climate](#)

12. [Visiting scholars](#)
13. [Enhanced visibility for women and women's issues](#)

Institutional Portfolios

3-5 pages

- [Case Western Reserve](#)
 - [Hunter College](#)
 - [Kansas State](#)
 - [New Mexico State](#)
 - [U. California, Irvine](#)
 - [U. Colorado Boulder](#)
 - [U. Maryland, Baltimore County \(UMBC\)](#)
 - [U. Michigan](#)
 - [U. Montana](#)
 - [U. Puerto Rico at Humacao \(UPRH\)](#)
 - [U. Texas at El Paso \(UTEP\)](#)
 - [U. Washington](#)
 - [U. Wisconsin-Madison](#)
 - [Utah State](#)
 - [Virginia Tech](#)
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The 11 **Program Perspectives** are video vignettes (8-13 minutes) that highlight the innovative work of specific institutions funded in later IT grants. Each vignette highlights a change leader from a single institution, describing key features of that project and challenges they faced, and giving advice about large change initiatives. Most of the Program Perspectives come from Rounds 3-6 of ADVANCE IT grants (funded 2006-12). The **Cross-Cutting Perspectives** are video collages (most 5-6 minutes) that combine insights from a variety of ADVANCE leaders about the broad processes of change.

Program Perspectives

8-13 minute videos

- [Iowa State](#)
- [Jackson State](#)
- [Lehigh](#)
- [Montana State](#)
- [North Dakota State](#)
- [Northeastern & Rice](#)
- [U. Maryland, College Park](#)
- [U. Nebraska-Lincoln](#)
- [U. Texas Rio Grande Valley](#)
- [Virginia Tech](#)
- [West Virginia](#)

Cross-Cutting Perspectives

5-12 minute videos

- [Introduction to the StratEGIC Toolkit](#) (4 min.)
- [Perspectives on the Role of Context in Shaping Change](#) (~5 min.)
- [Perspectives on Working for Change at Multiple Levels](#) (~5 min.)
- [Perspectives on Diversity, Inclusion, and ADVANCE](#) (~5 min.)
- [Perspective on the Process of Change](#) (~6 min.)
- [Researcher Perspective: Mary Armstrong on ADVANCING Intersectionality](#) (~12 min.)

You can browse all the videos at the [StratEGIC Toolkit video channel](#).