



CCTI

College and Career Transitions Initiative

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CULTIVATING GENDER EQUITY IN EMERGING TECHNOLOGIES: MENTORING AND MYTHBUSTING

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As the United States becomes more scientifically complex and its job market more technology-driven, the national need for a larger, more diverse, science- and computer-literate workforce becomes more acute. To strengthen and diversify the nation's human capital, educators must seek ways to expand the participation of females in fields on the forefront of technical professions. The inability of high-tech employers to meet their workforce needs with just male graduates will lead to further off-shoring of American jobs to other countries.

The under representation of women in technical careers is due in part to the misperception that women are less capable in science and technology—a myth that is refuted by standardized assessments. Thus, there is a need for initiatives that dispel that myth while providing tools for mentoring, disseminating information about high-tech careers, and fostering gender-equitable classrooms.

A new NSF ATE project titled *Cultivating Gender Equity in Emerging Technologies: Mentoring and Mythbusting* (DUE 0703149) is taking steps to increase female participation in cutting-edge technologies. To accomplish its mission, the project will undertake three activities:

- (1) Deliver **train-the-trainer workshops** designed to show program coordinators how to design, market, manage, evaluate, and sustain mentoring programs.
- (2) Develop and maintain an **online toolkit** containing instructions for creating, implementing, evaluating, and maintaining technology mentoring programs that attract and retain girls in high-tech fields. The toolkit will include program coordinator training resources, a "how-to" guide for launching mentoring programs, tools for building community support, gender equity classroom resources, "career connections" (photonics, cybersecurity, and rapid prototyping resources for students, teachers, counselors, and parents), event planning checklists, and customizable marketing materials.
- (3) An **online professional development course** designed to help secondary teachers favorably alter the gender-equity climate in their classrooms. The six-week course, titled *Fostering Gender Equity in the Science, Technology, Engineering, and Mathematics Classroom*, will show what recent research has to say about girls' abilities and preferences in technological learning environments. Course participants will learn how to:
 - Recognize and correct gender inequity in the classroom,
 - Cultivate a climate of respect and creativity,
 - Create exciting, real-world science and technology activities,
 - Develop mentoring partnerships with high schools, colleges, and high-tech firms,
 - Increase parents' support for their daughters' technology career aspirations, and
 - Increase female matriculation from high school to community college technology programs.

For more information, visit the project website at www.genderequitycollaborative.org or email Ann-Claire Anderson, Principal Investigator, at anderson@cord.org.

Resources

New Formulas for America's Workforce: Girls in Science and Engineering. National Science Foundation, 2003
The Talent Imperative: Meeting America's Challenge in Science and Engineering. Building Engineering and Science Talent (BEST), 2004
Land of Plenty: Diversity as America's Competitive Edge in Science, Engineering and Technology. Congressional Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development, 2000