### **ADVANCE-Purdue Research Note #10**

Current research on gender and STEM in academia September 1, 2012



## **UPCOMING EVENTS**

**1. Women of Color STEM Conference,** Oct 11-13, Dallas, TX Details: http://intouch.ccgmag.com/page/woc\_conference

2 . Society of Women Engineers Annual Conference, Nov 8-10, Houston, TX

Details: <a href="http://we12.swe.org/">http://we12.swe.org/</a>

#### RESEARCH

**1. Women, Men, and Academic Performance in Science and Engineering: The Gender Difference in Undergraduate Grade Point Averages.** (2012). Sonnert, G. and Fox, M. F. *Journal of Higher Education* 83, 1: 73-101.

Abstract: "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."

http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/journal\_of\_higher\_education/v083/8 3.1.sonnert.html

**2.** The Matilda Effect in Science: Awards and Prizes in the US, 1990s and 2000s. (2012). Lincoln, A.E. et al. *Social Studies of Science* 42, 2: 307-320.

Abstract: "Science is stratified, with an unequal distribution of research facilities and rewards among scientists. Awards and prizes, which are critical for shaping scientific career trajectories, play a role in this stratification when they differentially enhance the status of scientists who already have large reputations: the 'Matthew Effect'. Contrary to the Mertonian norm of universalism – the expectation that the personal attributes of scientists do not affect evaluations of their scientific claims and contributions – in practice, a great deal of evidence suggests that the scientific efforts and achievements of women do not receive the same recognition as do those of men: the 'Matilda Effect'. Awards in science, technology, engineering and medical (STEM) fields are not immune to these biases. We outline the research on gender bias in evaluations of research and analyze data from 13 STEM disciplinary societies. 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 results support the powerful twin influences of implicit bias and committee chairs as contributing factors. The analysis sheds light on 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 ghettoization of women's accomplishments into a category of 'women-only' awards also is discussed." http://sss.sagepub.com/content/42/2/307.abstract

**3. Developing Diverse Departments (D3) at North Carolina State University.** (2012). Gumpertz, M. ASEE Annual Conference, San Antonio, Texas.

Excerpt: "The ADVANCE Scholars form the core of NC State's D3 project. These are two groups of faculty who have made a three-year commitment to study unconscious bias and social issues in higher education, and to become change agents in the university. The ADVANCE Scholars are divided into Senior Leaders, who are full professors and department heads; and Emerging Leaders, who are associate professors. Each of the ten academic colleges supports at least one ADVANCE Scholar with an annual course release. The Provost's office provides course releases for an additional seven ADVANCE Scholars. In exchange for the course release, the Scholars attend a monthly seminar...Each ADVANCE Scholar is also is responsible for developing an initiative related to increasing faculty diversity or promoting the success of faculty from underrepresented groups within their college...The individual projects include collecting and disseminating best practices for hiring diverse faculty within their discipline; organizing a Hispanic/Latino Faculty Group at NC State; working to develop a campus policy on parental leave for graduate students; creating a lunch and learn series on leadership for women in Engineering, and organizing a two-day community building retreat for junior faculty in the sciences and engineering" (p. 4).

## RECENT BOOKS

*Diversity in American Higher Education: Toward a More Comprehensive Approach.* (2011). Stulberg, L.M. & Weinberg, S.L., Eds. New York: Routledge.

"Diversity has been a focus of higher education policy, law, and scholarship for decades, continually expanding to include not only race, ethnicity and gender, but also socioeconomic status, sexual and political orientation, and more. However, existing collections still tend to focus on a narrow definition of diversity in education, or in relation to singular topics like access to higher education, financial aid, and affirmative action. By contrast, *Diversity in American Higher Education* captures in one volume the wide range of critical issues that comprise the current discourse on diversity on the college campus in its broadest sense. This edited collection explores:

- legal perspectives on diversity and affirmative action
- higher education's relationship to the deeper roots of K-12 equity and access
- policy, politics, and practice's effects on students, faculty, and staff.

Bringing together the leading experts on diversity in higher education scholarship, *Diversity in American Higher Education* redefines the agenda for diversity as we know it today." (Summary from: http://www.routledge.com/books/details/9780415874526/)

# IN THE NEWS

- **1. Fewer Women Enrolling in STEM Classes in Community Colleges.** Martin, J. *CNN*, March 22, 2012. <a href="http://schoolsofthought.blogs.cnn.com/2012/03/22/fewer-women-enrolling-in-stem-classes-in-community-colleges/">http://schoolsofthought.blogs.cnn.com/2012/03/22/fewer-women-enrolling-in-stem-classes-in-community-colleges/</a>
- **2. Life after PhD: How to Retain Capacity in Academia.** Segesten, A. M. *Inside Higher Ed.*, June 20, 2012. <a href="http://www.insidehighered.com/blogs/university-venus/life-after-phd-how-retain-capacity-academia">http://www.insidehighered.com/blogs/university-venus/life-after-phd-how-retain-capacity-academia</a>
- **3. Math and Science Fields Battle Persistent Gender Gap.** Marklein, M.B. *USA Today*, August 2, 2012. http://www.usatoday.com/news/education/story/2012-07-23/math-science-gender-gap/56669934/1