

Upcoming Events

Event: WEPAN (Women in Engineering Proactive Network) Annual Conference
Theme: Getting to the Heart of it All: Connecting Gender Research, WIE Programs, Faculty, & Corporate Partners
Date: June 25-27, 2012
Location: Columbus, Ohio
Details: <http://ocs.sfu.ca/wepan/index.php/wepan2012/wepan2012>

Research Articles

1) The Gendered Division of Labor Among STEM Faculty and the Effects of Critical Mass. Carrigan, Coleen, Kate Quinn, & Eve A. Riskin. (2011). *Journal of Diversity in Higher Education* 4 (3): 131-146.

"This study explored whether there is a gendered division of labor for faculty in academic science, technology, engineering, and mathematics (STEM) at research universities and examined the connections between time allocation and satisfaction for STEM faculty within the context of a critical mass of women in the discipline. Using a weighted sample of 13,884 faculty from the 2004 National Study of Postsecondary Faculty (NSOPF:04), we found a gendered division of labor that is mitigated by a critical mass of women faculty in the discipline. Results lend empirical support to theories that argue critical-mass attainment positively impacts equity in resource distribution and time allocation." (p. 131)

2) Race, Gender, and Measures of Success in Engineering Education. Ohland, Matthew W., Catherine E. Brawner, Michelle M. Camacho, Richard A. Layton, Russell A. Long, Susan M. Lord, & Mara H. Wasburn. 2011. *Journal of Engineering Education* 100 (2): 225-252. <http://www.jee.org/2011/April/04>

The authors compare 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." They found 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." Their study "demonstrates that trajectories of persistence are non-linear, gendered, and racialized, and further that higher education has developed the way in which persistence is studied based on the behavior of the majority, specifically the White, male population. Even if institutions were to treat all students equally, the outcomes will not necessarily be the same because various populations respond differently to the same conditions." (p. 225).

3) The Antecedents of a “Chilly Climate” for Women Faculty in Higher Education. Maranto, Cheryl & Andrea EC Griffin. (2011). *Human Relations* 64(2): 139-159.

“The literature on women’s under-representation in academia asserts that faculty women face a ‘chilly climate’, but there are few theoretically based studies examining this proposition. Relational demography, organizational justice, and social network theories all identify possible antecedents of ‘chilly climate’. Using survey data of faculty at a private Midwestern US university, we test whether the perception of exclusion (chilly climate) is influenced by demographic dissimilarity, and perceptions of fairness and gender equity. We find that faculty women perceive more exclusion from academic departments with a low representation of women, consistent with relational demography. Perceptions of procedural fairness and gender equity are powerful factors that foster inclusion and warm the climate for both men and women. The ‘chilly climate’ for women faculty is a complex phenomenon with multiple causes. Policies that fail to address these multiple causes are unlikely to be effective.” (p. 139)

4) Work and Family Conflict in Academic Science: Patterns and Predictors Among Women and Men in Research Universities. Fox, Mary Frank, Carolyn Fonseca, & Jinghui Bao. (2011). *Social Studies of Science* 41(5): 715-735.

“This article addresses work–family conflict as reported among women and men academic scientists in data systematically collected across fields of study in nine US research universities. Arguing that academic science is a particularly revealing case for studying work–family conflict, the article addresses: (1) the bi-directional conflict of work with family, and family with work...(2) the ways that higher, compared with lower, conflict, is predicted by key features of family, academic rank, and departments/institutions; and (3) patterns and predictors of work– family conflict that vary, as well as converge, by gender. Results point to notable differences, and commonalities, by gender, in factors affecting interference in both directions of work–family conflict reported by scientists. These findings have implications for understandings of how marriage and children, senior compared with junior academic rank, and departmental climates shape work– family conflict...” (p. 715)

New Web Resources

Women@NASA Adds Aspire 2 Inspire for Middle School Girls Interested in STEM Careers. *The Journal*, November 28, 2011.

<http://thejournal.com/articles/2011/11/28/womennasa-adds-aspire-2-inspire-for-middle-school-girls-interested-in-stem-careers.aspx>

“[NASA](#) has expanded the [Women@NASA](#) portion of its Web site to include a section targeting middle school girls considering education and careers in science, technology, engineering, and math (STEM). The purpose of the new section, [Aspire 2 Inspire](#), is to get female students thinking early about STEM areas they might be interested in pursuing. Five videos that look at the careers of women who work for NASA, and an overview of the program; A rundown with links to STEM-related outreach programs affiliated with NASA, such as [Aerospace Scholars](#), [Educators Online Network](#), and [Interdisciplinary National Science Project Incorporating Research and Education Experience](#) (INSPIRE), and a list of related community organizations, such as [Society of Women Engineers](#), [Sally Ride Science](#), and [10 x 10](#); and Four Twitter feeds, so middle school girls can communicate with the women featured in the videos and read daily tweets discussing unique aspects of their jobs.”