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### Upcoming Event

- Event:** Raising Heights of Innovation [Society of Women Engineers (SWE) – Annual Conference]  
**Location:** Chicago, Illinois  
**Date:** October 13 -15, 2011  
**Theme:** “Raise the heights of innovation with more than 5,000 women engineers and technologists at the WE11 Conference, October 13-15 in Chicago. Whether you are an experienced professional or a collegian looking to start your career, you can:  
a) Participate in valuable professional development sessions  
b) Network with other engineering professionals and students  
c) Find your dream job at the Career Fair, featuring more than 200 companies, government agencies and universities  
d) Experience Chicago through numerous technical and sight-seeing tours  
e) Enjoy exciting plenaries, keynote speakers and awards banquets, including Celebrate SWE!  
f) Relax in the Lava Lounge, where you can read inspiring stories of SWE women and share your own”
- Details:** <http://we11.swe.org/>

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### Research Papers and Publications

- 1) Misra, Joya, Jennifer Hickes Lundquist, Elissa Holmes, and Stephanie Agiomavritis. 2011. “The Ivory Ceiling of Service Work.” *Academe*: January-February:  
<http://www.aaup.org/AAUP/pubsres/academe/2011/JF/Feat/misr.htm>

Women faculty members complain that they are assigned a disproportionate share of departmental service duties as compared to their male colleagues. Such duties need to be done but those do not have much significance in terms of their promotion and tenure. The authors explore this issue via surveys and interviews with 350 faculty members at the University of Massachusetts at Amherst in year 2008-2009. They find considerable gender gaps in service assignments and career advancements of female and male professors. They also examine patterns of specific service duties and allocation of time for those duties. For example, one such duty is serving as director of a department's undergraduate program. Among associate professors, 1/3 of women but only 17% of men had served as undergraduate directors. "Because undergraduate directors spent more time teaching and working with undergraduates -- tasks that research universities tend to undervalue -- gendered norms may contribute to women associate professors spending more time in devalued roles," the authors say.

- 2) Bird, Sharon R. 2011. “Unsettling Universities' Incongruous, Gendered Bureaucratic Structures: A Case-study Approach.” *Gender, Work, and Organization*. 18(2): 202-230

Current data show that women faculty members in academia still encounter systemic barriers to academic and career-based advancements. Also, such barriers are stronger in science and engineering disciplines as well as in administrative positions. Policy makers, university administrators, and faculty members often do not realize that systemic gendered barriers should be addressed and eliminated to enhance career-oriented performances and advancements of women faculty members. An important concern is that many leaders in powerful decision-making positions in universities use sex-stereotypical explanations for gender gaps in tenure and promotions. Policy makers often do not recognize the institutional nature of gender barriers. Thus, there is a need for more scholarly publications and training programs on how systemic institutional barriers operate and aggravate disadvantages women. The author first addresses universities as incongruous, gendered bureaucratic

structures. Next, she presents an intervention approach to facilitate the understanding of faculty members and university administrators regarding these incongruous, gendered bureaucratic structures. She also suggests how to utilize this knowledge about disparity and to develop approaches for addressing women's underrepresentation in science and engineering disciplines. The author uses a case-study approach that is currently implemented at a mid-sized research- oriented university in the US mid-west. This workshop was part of an institutional program that intends to transform the university's cultures, practices and structures in strategies that improve recruitment, retention and promotion of women faculty members in science and engineering departments. The author concludes by discussing the advantages and drawbacks of the case-study as a method for generating knowledge about the patriarchal structures and gender-based practices of the university.

- 3) Riegle-Crumb, Catherine, and Barbara King. 2010. "Questioning a White Male Advantage in STEM: Examining Disparities in College Major by Gender and Race/Ethnicity." *Educational Researcher*. 39(9): 656-664

The authors analyze nationally representative data on young college students to examine gender and racial/ethnic disparities in STEM disciplines, with particular focus on the role of academic groundwork and approaches that create such disparities. Results show that physical science and engineering majors are dominated by men. However, these majors are not disproportionately dominated by White men. After considering high school science and technology-based preparation, the chances of declaring physical science and engineering majors are twice as much greater for Black male students than for White males. Interestingly, Black female students are closer than White females to reduce the gap with White males. The authors find virtually no evidence that math attitudes contribute to disparities in selection of a physical science or engineering major. Finally, in contrast to physical science or engineering major disciplines, biological sciences have relatively proportionate representation of Black female, White female, Black male, White male students.

## Gender and STEM News

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- 1) **"Fed-up" Women Ditching Science Careers.** By David Mark. April 11, 2011. *ABC News*

"A summit in Canberra is examining why Australian women are dropping out of science and engineering, often when they are at the peak of their careers. Organizers of the today's summit say this brain drain is costing the country both culturally and economically. Neuroscientist Catherine Leamey, who is taking some time off after having her first baby nine months ago, says she will go back to work later this year with some trepidation. "I did [undergraduate] and honors at New South Wales University and then I did a PhD and then I did a post-doc at MIT in the US. Then I came back and got a lectureship at Sydney University and now I'm a senior lecturer," she said. "Your ability to raise funding, which is what you need to do to be able to do science, is by producing papers and having had a baby, it will affect that in many, many ways," she said. "It will continue to affect us for some time to come. Anna-Maria Arabia, the head of the Federation of Australian Scientific and Technological Societies (FASTS), says a scientist's success is based on their publication rate. "But it is a publication rate that may have been calculated over the number of years that they have been in research since their PhD where perhaps five of those years may have been out of the workforce to raise children," she said. Dr Leamey says many women simply give up on research when they return to work. "Once they have a child, they pretty much just decide, OK, I will become a teaching academic and stop doing research just because it just gets too hard," she said." For details please visit: <http://www.abc.net.au/news/stories/2011/04/11/3188164.htm>