
New Web Resource

Resource: The Gendered Innovations in Science, Health & Medicine, & Engineering Project

Location: genderedinnovations.stanford.edu

“Gendered Innovations employ sex and gender analysis as a *resource* to create new knowledge and technology.” Its primary purposes are to develop “methods of sex and gender analysis for scientists and engineers” and to provide “case studies as concrete illustrations of how sex and gender analysis leads to innovation.” In addition to case studies, the site offers resources such as explanations of key terms, checklists for researchers on how to include sex and gender analyses into their work, and best practices. Project Director, Londa Schiebinger, has said that they are working on seven more case studies to be added to the site and that feedback on the new site is welcome. The Gendered Innovations project will also be further developed through a series of expert workshops in the US and Europe in 2012.

Research Articles

1) The Engineering “Pipeline” Metaphor and the Careers of Female Deans of Engineering. Layne, Peggy. (2011). *Proceedings of the American Society for Engineering Education Annual Conference*, Vancouver, Canada, June 26-29, 2011.

Based upon interviews with 21 female engineering Deans, Layne (who is Director of ADVANCE Virginia Tech) argues that the pipeline metaphor does not adequately account for their career trajectories. “These women were not being swept along in a pipeline or even driving along a well-marked highway towards the dean’s office, but constructed their own pathways, making choices and changing directions as they went, perhaps leaving a trail for others to follow.” Their paths included marriage, children, and work outside of academia. She concludes that “it can be restrictive to view a career in engineering as limited to following a pre-determined course...Universities seeking to increase the number and success of women faculty can implement policies that enable women and men to combine career and family...More important than having such policies on the books is creating a culture that ensures faculty who take advantage of family friendly policies are not penalized or considered less serious about their careers.”

2) Addressing Gender Equity in the Physical Science: Replications of a Workshop Designed to Change the Views of Department Chairs. Greene, Jessica, Priscilla Lewis, Geraldine Richmond, & Jean Stockard. (2011). *Journal of Women and Minorities in Science and Engineering* 17(2): 97-109.
<http://www.begellhouse.com/journals/00551c876cc2f027,123ee04f5c874ba3,429c9f654dd95c21.html>

Abstract: "This research note presents data on the replication of a carefully planned intervention to increase the commitment of department chairs in the physical sciences to the hiring and career advancement of women. Three separate workshops for department leaders in chemistry, physics, and material science were held. Participants' views regarding factors that affect attracting women candidates, the hiring of women faculty and barriers to women's career progress changed significantly from before attending the workshop to after attending. When differences occurred between the disciplines, changes were most apparent for chemistry department chairs. Reasons presented for these differences included variations in the representation of women in the field and elements included in the chemistry workshop that involved greater public acknowledgment of needs for change."

3) The Gendered Divisions 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 examines gendered division of labor among faculty at research universities, specifically "the connections between time allocation and satisfaction for STEM faculty within the context of a critical mass of women in the discipline." Based on data from 13,884 faculty members, they "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)

Gender and STEM in the News

1) Lack of Confidence as Professionals Spurs Women to Leave Engineering. October 25, 2011. *The Chronicle of Higher Education*
<http://chronicle.com/article/Lack-of-Confidence-as/129528/>

"Women who begin college intending to become engineers are more likely than men to change their major and choose another career, but it's because they lack confidence, not competence, says a paper in the October issue of the *American Sociological Review*. Specifically, women lack 'professional role confidence,' a term that describes, loosely, a person's sense that he or she belongs in a certain field. The term encompasses more than mastery of core intellectual skills. It also touches on a person's confidence that he or she has the right expertise for a given profession, and that the corresponding career path meshes with his or her interests and values. As one of the most sex-segregated professions outside the military, engineering carries ingrained notions and biases about men being more naturally suited to the field, which can have self-reinforcing effects, notes the paper's lead author, Erin Cech, a postdoctoral fellow in sociology at Stanford University's Clayman Institute for Gender Research...Several recent studies, including a [continuing effort at MIT](#), have looked at the barriers women face in engineering. The new paper adds nuance to widely held notions about what causes women to leave engineering."