
Upcoming Event

Event: Sustainability: Women Engineering the Future [Region D Conference]
Location: Knoxville, Tennessee
Date: March 4-6, 2011
Theme: The goal of this conference is to give women in engineering the tools to succeed at both the academic and professional level. The organizers want all conference attendees to walk away with new knowledge on how to advance and reach their full potential, as well as, new insight on technologies relating to this year's conference theme: "Sustainability: Women Engineering the Future."
Details: <http://www.swe.org/regiond/regiondconference/index.html>

Publication

Title: Becoming an Engineer in Public Universities: Pathways for Women and Minorities
Edited by: Kathryn M. Borman, Will Tyson, and Rhoda H. Halperin
Publication year: 2010
Publisher: Palgrave Macmillan, New York, NY
ISBN: 978-0-230-61935-7

About the publication: This book re-analyses some of the basic tenets of the retention of women and ethnic minority students in engineering disciplines. The research is based on data collected over a time period of three years from five public universities in the state of Florida. Analyses are based on both quantitative and qualitative methods. Findings suggest that the primary obstacles to retain women and ethnic minority undergraduate engineering students in public universities are varied. There are individual factors such as self esteem as well as organizational factors like adverse departmental climate and lack of institutional support. The authors suggest a strong dialogue between administrators and program managers in order to address policy changes that are benevolent for the women and ethnic minority students.

Research Papers

- 1) Miyake, Akira, Lauren E. Kost-Smith, Noah D. Finkelstein, Steven J. Pollock, Geoffrey L. Cohen and Tiffany A. Ito. 2010. "Reducing the Gender Achievement Gap in College Science: A Classroom Study of Values Affirmation." *Science*. 330(6008): 1234-1237

As compared to men, women's performances are less appreciated in majority of the science, technology, engineering, and mathematics (STEM) disciplines. Thus women's academic and career advancements are often restricted in these STEM disciplines. This paper examines the impact of values affirmation (a psychological intervention) in minimizing gender gap in academic success in a college-level physics class. Data are collected from a random sample of 399 students who reported about their most important values and about the values that they do not consider as important. Analyses are based on quantitative methods. Findings suggest that values affirmation significantly reduces gender gap in learning and academic achievements. These impacts are strongest among the female students who believe that men do better than women in physics. Thus psychological interventions seem to be an effective way to alter gender relations in STEM disciplines.

- 2) Barnard, Sarah, Abigail Powell, Barbara Bagilhole, Andrew Dainty. 2010. "Researching UK Women Professionals in SET: A Critical Review of Current Approaches." *International Journal of Gender, Science, and Technology*. 2(3): 361-381

Academic and career advancements of women in science, engineering, and technology (SET) disciplines are often overshadowed by those of men in terms of research and outreach activities in the United Kingdom. This paper explains this situation by analyzing the development of research on women in SET disciplines. The analyses are based on four specific schools of thought: essentialist constructions of science and gender, barriers facing women professionals in SET, the assimilation of women in SET, and the business case for change. The authors posit that current literature on women and men in SET disciplines does not offer adequate alternatives for gender-related changes and identifies women as the center of the problem. They suggest that future research should focus on the specific experiences of women professionals in SET disciplines, and also it should treat “women’s issues” as the issues of SET professionals in general.

Gender and STEM News

1) Women Scientists Must Speak Out. By Jennifer Rohn. December 8, 2010. *Nature News*

“Despite decades of awareness, science is still inherently sexist. Women are vastly under-represented in professorships and in national academies worldwide. This is a familiar problem, but less highlighted is how the discrepancy plays out in the public arena of science — the media. Male science pundits dominate television, radio and print — including the pages of opinion and comment in this journal. This imbalance cannot simply be explained by the shortage of female professors, as many male pundits are still at an early stage of their academic careers, when genders are better balanced. So what is behind this effective invisibility of women scientists in our media? And why does it matter?” For details please visit: <http://www.nature.com/news/2010/101208/full/468733a.html>

2) Wishing Up on STEM Completion. November 8, 2010. *Inside HigherEd*

“For students studying science and engineering, gender is the biggest predictor of completion. At least half of women consider dropping out or aiming for a lesser degree during their doctoral studies because of issues stemming from discouraging advisers, uncomfortable work environments, sexist attitudes and other gender biases. That - along with a persistent gender gap in the science, technology, engineering and mathematics fields - is why researchers at Arizona State University spent the last four years creating a resource to support women in STEM: a website called *CareerWISE*, which they unveiled here at the National Science Foundation last week. We aim to reduce these women’s decisions to leave their programs, if that decision involves discouragement, said Bianca L. Bernstein, an Arizona State professor of counseling and principal investigator of the *CareerWISE* research program, the \$3.2 million NSF grant project that led to the website. We’re taking a completely different tack, and frankly, it’s experimental.” For details please visit: <http://www.insidehighered.com/news/2010/11/08/stem>

3) The Gender Gap on Service. January 12, 2011. *Inside HigherEd*

“For years, women in academe have complained that they are assigned a disproportionate share of departmental service duties -- work that needs to be done but that doesn't carry much weight when it's time to decide who gets promoted. A study on the issue - by Joya Misra, Jennifer Hikes Lundquist, Elissa Dahlberg Holmes and Stephanie Agiomavritis - is being released today in *Academe*. It explores the subject through surveys of and interviews with 350 faculty members at the University of Massachusetts at Amherst in 2008-9 - and finds significant gender gaps in service assignments and advancement of male and female professors. The study examines patterns related to specific service duties as well as allocation of time.” For details please visit: http://www.insidehighered.com/news/2011/01/12/new_study_finds_unequal_distribution_by_gender_in_academic_service_work