Recent Research and Perspectives

The missing women in STEM? Assessing gender differentials in the factors associated with transition to first jobs

http://www.sciencedirect.com/science/article/pii/S0049089X16306020

Although women now make up about half of all graduates in the science, technology, engineering, and mathematics (STEM) fields, they remain a small proportion of the STEM workforce, contributing to occupational segregation and the gender wage gap. The authors studied how gender differences in preference for marriage or children affected the transition from degree completion to a STEM job among 163 women and 353 men, using data from the 1979 National Longitudinal Survey of Youth. The authors found that women who were willing to delay or forgo marriage or motherhood were no more likely to enter a STEM field within two years of graduating than women who were not.

Differences in collaboration patterns across discipline, career stage, and gender


Collaboration plays an important role in research productivity, but it is not known how collaboration differs among and between men and women professionals in STEM fields. The authors studied publication records of 3,980 faculty members in six STEM disciplines at select U.S. research universities. They found that faculty members who
were women had significantly fewer distinct co-authors over their careers than faculty who were men, but this gap could be accounted for by the fact that women published fewer articles overall and have shorter career lengths. The faculty who were women also appeared to be more likely to engage new co-authors over time. The researchers also found that the field of molecular biology had the greatest gender gap, with significantly fewer published papers written by women.

**Advancing women’s health and women’s leadership with endowed chairs in women’s health**


Although women make up almost half of all medical school graduates, just 13% of all full-time faculty who are women are full-time professors, compared with 30% for full-time faculty who are men. Women physicians are similarly underrepresented as medical school deans and endowed chairs. The authors explored how the number of women in endowed chairs in internal medicine has changed and whether holding an endowed chair was an effective way to advance women leaders in academic medicine and women’s health fields. Their research showed that the number of women in endowed chairs more than doubled between 2013 and 2015. After surveying these women, the authors found that most of the endowed chairs agreed that their positions allowed them to provide more sex- and gender-based content in the education of medical students, residents, and faculty. However, more than half of the current endowed chairs did not believe that holding the position had promoted their own leadership.

**Did you know?**

There are some amazing women supporting and doing research and making discoveries in biomedical research at NIH. These women represent a multitude of cultures, ethnicities, abilities, and identities. The idea to honor women of color in science originated with the Committee on Women of Color in Biomedical Careers, a subcommittee of the NIH Working Group on Women in Biomedical Careers. The NIH Office of Equity, Diversity, and Inclusion has gathered these women’s stories in the hope that women and girls all over the world will be inspired, informed, encouraged, and empowered to pursue their own dreams of scientific discovery. To learn more and view the videos, please visit [http://edi.nih.gov/people/sep/women/wocis](http://edi.nih.gov/people/sep/women/wocis)
**Spotlight**

**Scientist Spotlight**

**Maureen Gannon, Ph.D.**

Maureen Gannon, Ph.D., grew up in Queens, New York. She received her B.S. in biology from Molloy College and her M.S. in biology from Adelphi University, both on Long Island. Her thesis work was conducted in Dr. David Bader’s lab at Cornell University, where she received her Ph.D. in cell biology and anatomy in 1995. Dr. Gannon pursued postdoctoral training in Dr. Chris Wright’s laboratory at Vanderbilt University, studying the role of the Pdx1 and HNF6 transcription factors in pancreas development. She is currently Professor and Vice Chair for Faculty Development in the Department of Medicine at Vanderbilt University Medical Center. Dr. Gannon is also the 2017–2018 chair of the American Diabetes Association (ADA) science session planning committee. She was elected as an American Association for the Advancement of Science (AAAS) fellow in 2015, and she has received funding from JDRF, NIH, ADA, and the U.S. Department of Veterans Affairs (VA)...(read more)

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**Featured Job of the Month**

**Tenure-Track/Tenure-Eligible Investigator, NCI-DCEG**

The Biostatistics Branch (BB) in the Division of Cancer Epidemiology and Genetics (DCEG), National Cancer Institute (NCI), National Institutes of Health (NIH), Department of Health and Human Services (DHHS), is recruiting for a tenure-track/tenure-eligible position. BB statisticians develop statistical research programs and actively collaborate both in cutting-edge studies of genetic, lifestyle, and other environmental causes of cancer, as well as in studies of cancer prevention, descriptive and clinical epidemiology. Statistical research is typically motivated by challenges encountered in DCEG studies, such as choosing an efficient study and sampling design, optimally combining data from multiple sources such as electronic medical records, genetic databases, disease and bio-specimen registries, as well as designing validation studies and methods to evaluate and correct for measurement error in exposures and disease outcomes. The branch has active methodological research programs in areas that include 1) absolute risk prediction, 2) analysis of longitudinal and survival data, 3) analysis and temporal and spatially related incidence data, and 4) the analysis of “omics” data that includes the analysis of data from cutting-edge next generation sequencing. To read more, view: [https://irp.nih.gov/careers/faculty-level-scientific-careers/tenure-track-tenure-eligible-investigator-nci-dceg-1](https://irp.nih.gov/careers/faculty-level-scientific-careers/tenure-track-tenure-eligible-investigator-nci-dceg-1).
Current News and Reports

Climate control: Gender and racial bias in engineering?
Written by Joan C. Williams, Su Li, Roberta Rincon, and Peter Finn for the Center for WorkLife Law and the Society of Women Engineers on August 16, 2016

This executive summary details responses from more than 3,000 study participants on the topic of implicit bias in engineering. Large gender gaps were reported for three areas of bias: “Prove-It-Again bias,” or having to prove oneself repeatedly to get the same amount of recognition and respect as a peer; “Tightrope bias,” or having a narrower range of acceptable behavior for certain genders; and “Maternal Wall bias,” or experiencing negative perceptions from coworkers after having a child. Large racial gaps were also reported for the first two biases. Women and people of color faced significantly more bias than white men did.

Education: The gamble of a Ph.D. hiatus
Written by Eryn Brown for Nature on November 17, 2016
http://www.nature.com/nature/journal/v539/n7629/full/nj7629-457a.html

The author outlines benefits and risks to taking time off from a Ph.D. program and includes advice for limiting the career damage a hiatus can bring. Benefits can include a refreshed sense of purpose, but one major drawback can be stalled career momentum. The author advises those thinking of taking a break to plan how and when to return, have an adviser who advocates for the person on hiatus, and embrace new learning opportunities while away.

How to fix the many hurdles that stand in female scientists’ way
Written by Hannah A. Valantine in Scientific American on December 1, 2016

In this opinion piece, the author writes that scientists who are women face unique hurdles when it comes to career advancement. Many of these issues are nuanced and require further study, but the wage gap can be fixed now. Universities should be held accountable for making salary equity a critical component of performance reviews, she writes. An ongoing study by the National Institutes of Health will determine whether removing personal identifiers, such as gender and race, in a grant application makes a difference in how it is scored.