

Women in Biomedical Careers



NIH Updates on Women in Science **News for You to Use!**

Jennifer Reineke Pohlhaus, Ph.D., Editor
Office of Research on Women's Health
Office of the Director, National Institutes of Health

Volume 1, Issue 3 (August 2008)

NIH Updates on Women in Science is brought to you by the [NIH Working Group on Women in Biomedical Careers](#). We encourage you to forward this e-newsletter to colleagues who may find it of interest.

Contents of this Issue

[NIH to Co-sponsor National Academies Workshop](#)

[Research Reported in Science: No Gender Gap in Mathematics in the United States](#)

[Report on Gender Equity in Education Spurs Debate Over Single Sex Schools](#)

[Data Collected by the RAISE Project Reveals Disparities in Professional Recognition for Women Scientists Debate Continues on Double-blind Peer Review](#)

[Researchers Present "Keys to Hiring Women" at 2008 American Sociological Association Meeting](#)

[Family-Friendly Policies Increasingly Offered at Higher Education Institutions](#)

[National Study Finds Gender Gap in Self-Assessed Level of Preparation for Career Responsibilities Among Early Career Faculty](#)

[Debate Continues on Double-blind Peer Review](#)

NIH to Co-sponsor National Academies Workshop

The NIH Office of Research on Women's Health is co-sponsoring the workshop, *From Doctorate to Dean or Director: Sustaining Women through Critical Transition Points in Science, Engineering, and Medicine*, to be hosted by the National Academies Committee on Women in Science, Engineering, and Medicine (CWSEM) on September 18 - 19, 2008 in Washington, DC. [Registration is required](#). The workshop will include panel discussions on crucial transition points in academic careers, proven strategies for helping women transition in industry, and how the changing nature of science, engineering, and medicine—specifically the growth in interdisciplinary fields—impacts career progression now and in the future. The committee is inviting professional societies to submit short statements addressing critical transition points in their fields of expertise and reasons why their statements deserve particular attention at the workshop. Statements will serve to inform the workshop's discussions and incorporate viewpoints from important stakeholders in these issues.

[Preliminary Agenda and Instructions for Submission of Statements](#)

[About CWSEM](#)

Research Reported in Science: No Gender Gap in Math in the United States

Researchers from the University of Wisconsin and the University of California - Berkeley, studied gender differences in mathematics across ten geographically diverse states, which are representative of the 50 states by the average score on the National Assessment of Educational Progress (NAEP). Average scores in grades 2-11 in these 10 states indicate that there are no statistical gender differences, even when considering gender within ethnic groups. The variance ratios for all grades and within all ethnicities (Table S2) show that males have more variability from the mean score than females. However, greater variance does not automatically correlate with more males at the upper tail of the distribution (scores above the 95th or 99th percentile); results vary by ethnic group. For example, in 11th grade in Minnesota, more White males than females scored above the 99th percentile, while more Asian females than males scored above the 99th percentile.

[Science Education Forum](#)

[News article from the New York Times](#)

[ScienceNOW Daily News](#)

Report on Gender Equity in Education Spurs Debate Over Single Sex Schools

In May 2008, the American Association of University Women (AAUW) released the report, [Where the Girls Are: The Facts About Gender Equity in Education](#), which presented data on educational achievements of girls and boys over the past 35 years, including three main findings: (1) girls' successes don't come at boys' expense, (2) on average, girls' and boys' educational performance has improved, and (3) understanding disparities by race/ethnicity and family income level is critical to understanding girls' and boys' achievement. In response, the Executive Director of the National Association for Single Sex Public Education [criticized the AAUW report](#), claiming that the report did not give enough attention to the gender gap "in motivation - not in what girls and boys can do, but in what girls and boys *want* to do: specifically, in what they want to learn, and how they want to learn it." He states that girls at single sex

schools are more likely to take science and engineering classes than girls at coed schools; and that boys at single sex schools are more likely than boys at coed schools to study subjects such as art, poetry, and advanced Spanish. A recent [Op-Ed in USA Today](#), co-authored by the Executive Director of the Wellesley Centers for Women, acknowledged that there are valid reasons for K-12 single sex education, but that sex differences in the brain are not among them, and suggested that focusing on gender differences in education emphasizes limitations instead of expanding possibilities.

In higher education, the number of [single sex colleges and universities has been decreasing for several decades](#). For example, Brenau University in Gainesville, Georgia, which was founded in 1878 as a women's college, opened its Evening and Weekend College to both sexes in the late 1960s and it recently announced plans to double its overall enrollment by increasing graduate and doctoral programs that are open to both sexes. In spite of this announcement, the president of Brenau University affirmed the importance of single sex education, stating that "in the South, there are real needs for single-gender education." At the same time, he acknowledged financial difficulties of maintaining a single sex higher education institution.

[Washington Post article on AAUW report](#)

[Chronicle of Higher Education Commentary on AAUW report](#)

[Inside Higher Ed article on Brenau University](#)

Data Collected by the RAISE Project Reveals Disparities in Professional Recognition for Women Scientists

The [RAISE Project](#), an initiative of the Society for Women's Health Research, is a national award clearinghouse dedicated to recognizing the achievements of women. It was designed to increase the status of professional women through enhanced *Recognition of the Achievements of women In Science, technology, Engineering, mathematics, and medicine*. Their interactive website includes a listing of available awards in these disciplines and analyzes the distribution of awards and award recipients by gender. Of more than 1,000 awards and 20,000 recipients that have been documented by the RAISE Project, [over half have less than 10% female recipients](#).

[Newsmakers article in Science about The Raise Project](#)

[Press Release](#)

Researchers Present "Keys to Hiring Women" at 2008 American Sociological Association Meeting

Research presented at the [Annual Meeting of the American Sociological Association](#), held August 1 - 4, 2008 in Boston, Massachusetts, explored the recruitment and hiring process at a large public research university and identified ways to increase the number of women on the tenure-track in science, technology, engineering, and mathematics fields. Suggestions offered by the researchers included advertising in publications that target women scientists and increasing the number of women on search committees. They shared data showing that search committees were more likely to advance women to the finalist stage when more women were in the applicant pool. In addition, search committees were more likely to select women as semi-finalists and to offer positions to women when the committee included at least one woman.

[Read more](#)

Family-Friendly Benefits Increasingly Offered at Higher Education Institutions

A recent article in the Chronicle of Higher Education highlighted the [Center for the Education of Women](#) at the University of Michigan and its 2002 and 2007 surveys on the availability of family-friendly policies in higher education. The Center released a five-year report on the changes in family-friendly benefits offered to faculty at doctoral, masters, and undergraduate institutions. Since 2002, a significant fraction of higher education institutions have created or enhanced family-friendly policies, such as offering reduced appointments (7% of surveyed institutions), modified duties (10%), and tenure clock stop policy (21%). Furthermore, over 10% of higher education institutions plan to create or enhance such family-friendly policies within the next 1-2 years. Research institutions with large doctoral programs (Doctoral-Extensive) had the most formalized family-friendly policies, both in 2002 and in 2007, with 92% reporting a tenure clock stop policy in 2007, for example, and 58% of those policies allowing for the tenure clock to be stopped more than once by one individual.

[News article from Chronicle of Higher Education](#)

[FAMILY-FRIENDLY POLICIES IN HIGHER EDUCATION: A Five-Year Report](#)

National Study Finds Gender Gaps in Self-Assessed Level of Preparation for Career Responsibilities Among Early Career Faculty

TIAA-CREF and the Associated New American Colleges (ANAC) conducted national surveys of early career faculty (within the first five years of their careers) at ANAC-institutions (mid-size private institutions offering graduate and professional programs around a liberal arts undergraduate core). Of the 179 respondents who indicated academic fields in the arts and sciences, 22% were in the natural sciences. The average age of the respondents was 39, and 13% of all respondents were ethnic minorities. Over half (56%) of all respondents were female; 71% of those were on the tenure-track and 60% were married, compared to 88% and 70% of the male respondents, respectively. The percentage of female respondents considering themselves 'very effectively' prepared to conduct research, teach undergraduates, and articulate teaching philosophy was significantly lower than male faculty respondents, both after graduate school and in their current positions. In contrast, more female respondents felt 'very effectively' prepared to serve on faculty committees than men after graduate school (12% versus 7%), a pattern that held in their current positions, with 52% of female respondents versus 45% of male respondents working 'very effectively' on faculty committees.

[Perceptions of Early Career Faculty: Managing the Transition from Graduate School to the Professional Career \(TIAA-CREF Report\)](#)

[News article from Inside Higher Ed](#)

Debate Continues on Double-blind Peer Review

In research published in *Trends in Ecology & Evolution* in January 2008, Budden *et al.* reported that the journal *Behavioral Ecology* published a statistically significant greater percentage of female first-authored papers following the introduction of double-blind peer review, in contrast to the similarly ranked *Behavioral Ecology and Sociobiology* and three other ecology and evolutionary biology journals

during the same time period. Complicating the analysis was the fact that another similarly themed journal, *Biological Conservation*, exhibited a statistically significant increase in female first-authored papers during the same time period. However, this journal instructed authors to prepare two cover pages with their submissions, the first one with identifying information, which "may be separated from the manuscript for the review process." Although Budden *et al.* stated that *Biological Conservation* did not practice double-blind review, they maintained that authors submitting to the journal would perceive increased anonymity. The findings of this study were included in a *Nature* [editorial](#), "Working Double-Blind," and opened for comment in the *Nature* [Peer-to Peer blog](#).

Subsequently, Webb *et al.* performed a different analysis on the six journals, excluding authors who supplied only initials or a name with unknown gender from the calculation of proportional female authorship. They reported that the increase in female first-authored papers in *Behavioral Ecology* "is not exceptionally different from the changes in the other journals in the field." In response, Budden *et al.* emphasized that their analysis included persons of unknown gender in the calculation of proportional female authorship, and that their calculations reflect an increase in female first-authored papers in *Behavioral Ecology* of 7.9%, which is on the 95% confidence interval of the mean of the other journals (3.7%). They highlighted their perception that the instructions to authors of *Biological Conservation* suggested increased anonymity and stated that they "cannot rule out this affecting author behaviour," further noting unpublished data that females and less experienced authors prefer to submit to journals with a double-blind review policy. Finally, they presented additional data showing that removal of *Biological Conservation* from the group of six analyzed journals changes the mean to 2.87%, at which point *Behavioral Ecology* (at 7.9%) falls "well outside" the 95% confidence interval.

Following the publication of the original article by Budden *et al.*, *Biological Conservation* changed its instructions to authors by removing reference to an anonymous cover page. Following publication of the letter by Webb *et al.*, and the response by Budden *et al.*, *Nature* revised its editorial with a [correction](#), claiming that it could no longer stand by the statement in its original editorial that double-blind peer review reduces bias against authors with female first names, despite subsequent claims in its blog that it should have given more weight to the response supplied by Budden *et al.*

[Does Double-blind Review Benefit Female Authors? \(Original Article\)](#)

[Update: Does double-blind review benefit female authors? \(Letter\)](#)

[Response to Webb *et al.*: Double-blind review: accept with minor revisions \(Letter Response\)](#)

PLEASE DO NOT REPLY TO THIS e-NEWSLETTER. To subscribe or unsubscribe, visit the [Women in Science NIH LISTSERV](#). For more information, please contact Jennifer Reineke Pohlhaus, Ph.D., Office of Research on Women's Health, Office of the Director, National Institutes of Health, through the Women in Science mailbox (womeninscience@nih.gov). The views expressed in this e-newsletter do not necessarily reflect those of the U.S. Government.