



# NIH **U**pdates on Women in Science News for Yo**U** to Use!

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*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.*

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## ***NIH Office of Science Education Welcomes Student and Mentor Participation in SciMentorNet***

The National Institutes of Health (NIH) Office of Science Education in the Office of Science Policy has developed an online mentoring program for US high school and college students who are interested in behavioral and social science, biomedical science, dental, and healthcare careers. SciMentorNet is a secure Web site maintained by the NIH where students can receive support and guidance from mentors via an e-mail and internet connection. Students over the age of 16 will be matched with [mentors](#) in the behavioral, social, and biomedical sciences, as well as dental, healthcare and research fields. Would-be mentors (including undergraduate and graduate students, university professors, postdoctoral fellows, independent researchers, and healthcare personnel) are invited to [register](#).

[SciMentorNet](#)

## ***The US Department of Education Releases Indicators of American Indian and Alaska Native Educational Achievement***

In September, the United States Department of Education [National Center for Education Statistics](#) released a report, *Status and Trends in the Education of American Indians and Alaska Natives 2008*, which showed that enrollment of American Indian and Alaska Native (AI/AN) students at all degree levels has more than doubled in the past thirty years. Among undergraduates in 2006, AI/AN students represented 1% of all enrollments, 61% of which were females, an increase of female representation from 49% of AI/AN students in 1976. Among undergraduate degrees, "Social sciences and history" was the second-most popular field of study and "Health professions and related clinical sciences" was the fourth-most popular field of study. The report highlighted the gender gap in AI/AN undergraduates, noting that the difference between the number of AI/AN males and females receiving degrees is 21 percentage points (with females earning more degrees), a difference that is exceeded only by Blacks/African-Americans, where the undergraduate gender gap is 30 percentage points (with females earning more).

At the graduate level, 0.7% of all Master's degrees and 0.6% of all Doctoral degrees were awarded to AI/AN recipients in 2006, and most of these degree recipients were female (64% and 54%, respectively). Six of the eight most popular fields of study at the graduate level were science and engineering fields.

[Status and Trends in the Education of American Indians and Alaska Natives, 2008](#)

## ***The American Council on Education Questions Whether There are "Too Many Rungs" on the Academic Career Level***

The [American Council on Education](#) has analyzed the career trajectory of college presidents, finding that today's presidents are older, more experienced, and hold a narrower range of prior positions than the college presidents in 1986. Noting that there are few young faculty in tenure-line positions, the issue brief proposes that higher education develop a new model for the "leadership pipeline," since future leaders may not have time to "touch every rung" on the traditional academic career ladder. The issue brief raises several important questions arising from the data, such as "How inspired will current undergraduates be to pursue an academic career if they see few young faculty?"

For young faculty who are women and/or minorities, the path to academic leadership could be more isolating than the path for young majority or young male faculty. Tenure-line faculty at four-year institutions are primarily male (69%), and white (81%). The percentage of women in tenure-line faculty at four-year institutions is higher at younger ages (38% for 34 years and younger) than older ages (19% at ages 65-70), but the low total number of young faculty means that women under the age of 45 in tenure-line positions are poorly represented (5%) among all faculty. Likewise, people of color under the age of 45 in tenure-line positions represent only 4% of all faculty.

The low representation of women on the academic career ladder, as described by the American Council on Education, was highlighted by the Dean of Duke University Medical School, Nancy Andrews, M.D., Ph.D., in a recent issue of Newsweek. In her profile, she described the surprise experienced by the principal of her children's school (who was expecting to meet the dean and spouse), when he realized that *she* was the dean and *her husband* was the spouse.

[American Council on Education Issue Brief](#)

["Climbing the Academic Ladder" in Newsweek](#)

## ***Women in Technology Face Barriers to Career Advancement***

The Michelle R. Clayman Institute for Gender Research at Stanford University and the Anita Borg Institute for Women in Technology released a report describing the obstacles and solutions for mid-level women in technology. The authors found that a complex set of gender barriers converge at the mid-level of the "technical career ladder." Although both mid-level men and women describe themselves as family-oriented, women noted a "family penalty" and believed that extended work days are required for career success. More mid-level women than men reported that they delay or sacrifice having a marriage, partnership, or children in order to achieve career goals.

Both men and women agreed that collaboration is a key to success in technology, but women reported that promotion and evaluation practices reward competition instead of collaboration. Women comprise an increasingly smaller proportion of the workforce at each rung of the career ladder, from entry-level to leadership positions.

[Climbing the Technical Ladder: Obstacles and Solutions for Mid-level Women in Technology](#)

[Blog at the Wall Street Journal: Why Women Leave Jobs in Tech](#)

[Article in CIO.com: Women in IT Delay Marriage, Motherhood to Advance Careers But Still Miss Top Jobs](#)

## ***Perceptions about Leadership Roles within Groups, Families, and Positions of Authority***

An article in the journal *Psychological Science* reports sex-biased leadership preferences depending on whether the group was experiencing intragroup competition or intergroup competition. The authors found that women were chosen as leaders when the group was coping with intragroup conflict (conflict between group members) and that men were chosen as leaders when the group was coping with intergroup conflict (conflict between the group and another external group). The authors note that group members in an intragroup conflict were more invested in bringing about a solution when the group was headed by a woman, and that group members in an intergroup conflict were more invested in bringing about a solution when the group was headed by a man, reinforcing gender expectations of leadership roles.

Considering small groups, such as a family, a Pew Research Center survey asked US men and women who acts as the leader within the household, and found that in 43% of all couples, women make the group (family) decisions in more areas than men, whereas men make the group decisions more than women in only 26% of all couples. Only 31% of all couples split decisions equally. In the same Pew Research Center survey, men and women were asked about their gender preferences for positions of authority. For the positions of elementary school teacher and police officer, most respondents preferred these positions to follow traditional gender roles (i.e. 59% preferred a woman as an elementary school teacher and 46% preferred a man as an elementary school teacher). For the other five positions of authority in this survey, most respondents had the same preference for either a man or a woman, indicating that traditional gender role expectations are decreasing for many positions, including bankers, surgeons, lawyers, airline pilots, and family doctors.

[\*Psychological Science\*: Sex Differences in the Emergence of Leadership During Competitions Within and Between Groups](#)

[Pew Research Center Publication on Gender and Power](#)

## ***Presidential Candidates Answer Questions about Women in Science and Engineering***

Earlier this month, both Presidential campaigns submitted a response to questions about women in science and engineering from the Association for Women in Science (AWIS) and the Society of

Women Engineers (SWE). The seven questions covered issues such as how to increase women in science, technology, engineering, and math (STEM) careers, to enforcement of Title IX in STEM academic departments, to the responsibility of the federal government with regard to paid family leave.

[Read the candidate's answers](#)

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