



## 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 share this e-newsletter with colleagues who may find it of interest.*

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### **Study Finds that Women are More Likely to Be Promoted When Women are Included on Hiring Committee**

A recent study by two researchers in Spain examined whether the inclusion of women on hiring committees helps determine whether women get promoted to top university positions. Manuel F. Bagues and Natalia Zinovyeva, scholars

at Universidad Carlos III and the Foundation for Applied Economics Research, analyzed associate and full professor promotions in the Spanish university system between 2002 and 2006.

They found that the gender composition of the committees strongly affected whether a female applicant was accepted for a full professor position. For a committee with seven male members, an additional female evaluator increased the chance of success for a female applicant by 14%. Thus, female applicants for full professor positions have a lower probability of success when evaluated by all-male committees. However, this trend did not apply to female candidates applying to associate professor positions. As a potential explanation for this difference, the researchers posed the suggestion that sexist attitudes of male evaluators may be greater toward female candidates seeking the highest level academic positions, but not toward those seeking lower-level ones.

While this study has direct policy implications for institutions seeking effective ways to ameliorate the underrepresentation of women in top academic positions, Bagues and Zinovyeva noted that their proposed solution creates a predicament: Given the lower numbers of women who would be eligible for participation as evaluators, increasing female representation substantially would require female professors to sit on roughly four times as many committees as men. Thus quotas could place a disproportionate burden on women by reducing their own available time for research, and consequently detract from their own career advancement.

[The Gender Composition of Hiring Committees Influences the Success of Women Applying for Full Professor Positions](#)

## **Breastfeeding Support from the Obama Administration**

While only 43% of mothers are still breastfeeding at 6 months, breastfeeding is one of the most effective preventative measures a mother can take to protect her child's health. Breastfeeding reduces children's risk for acute and chronic diseases like childhood leukemia and obesity. It can also be beneficial to mothers, as it can be protective against type 2 diabetes and breast or ovarian cancers.

These health benefits translate to financial savings for both the country and individual families. For instance, exclusively breastfeeding an infant saves over \$1500 in formula and feeding supplies in the first year. Employers would also benefit from lower health care costs, employees taking fewer sick days, and increased retention of qualified women employees.

Despite the advantages to breastfeeding, many mothers stop earlier than recommended due to unsupportive workplace conditions. In recognition of the health and economic benefits of breastfeeding, the Obama Administration has taken several steps to make it a more feasible choice for women. As part of the Affordable Care Act, employers must provide nursing mothers with reasonable break time and private space (other than a bathroom) for expressing milk for a full year after a child's birth. Additionally, The Special Supplemental Nutritional Program for Women, Infants, and Children (WIC) offers nursing mothers additional support and breastfeeding supplies. Finally, new online resources have been made available for breastfeeding women, their employers, and their health care providers.

[Obama Administration Takes Steps to Encourage Breastfeeding for Working Mothers](#)

## **Female Science Students Get a Boost from Simple Writing Exercise**

Social psychologist Akira Miyake and his colleagues at the University of Denver have found that giving women the opportunity to write and reflect on their values can significantly improve their performance in science courses. They studied 399 students (286 men and 116 women) in an introductory physics class at the University of Colorado, and had them spend 15 minutes twice a semester to write about personal values, such as the importance of relationships or the significance of learning. Half of the students were asked to choose three values that were most significant to them and explain their importance. The other half of the students—the control group—chose the three values that were *least* important to them and wrote about why they could be important to someone else. The women who wrote about their own values scored significantly higher in the class than women in the control group did: While 60% of the control women earned Cs and less than 30% earned Bs, there was a nearly even distribution of Cs and Bs among the women who wrote about their own personal values. Men in the class performed similarly regardless of whether they were in the control or experimental group. As a possible explanation for these results, the authors hypothesize that the writing exercise specifically boosts the women’s sense of self-worth and helps reduce stress from negative stereotypes that detract from the focus on learning. Considering that many groups are hampered by negative stereotypes in educational settings, such simple yet effective writing exercises could be instrumental in reducing achievement gaps.

[Study Suggests Simple Fix to Help Women Succeed in Science](#)

## **Female Doctors Increasingly Drawn to Unexpected Fields**

Women are increasingly joining the ranks of colon and rectal surgeons, but not necessarily because of an intrinsic liking for the work. The reason behind the increase of women in these specialties lies in what Harvard University economics professor Claudia Goldin has termed “the career cost of family.” Using Harvard and Beyond survey data on members of the Harvard College graduating class from 1969 to 1992, Goldin computed the relative penalties incurred from taking time off for members of four degree groups. She found that MDs have the lowest penalty from taking time off for family, while MBAs have the greatest penalty and the PhDs and JDs are in the middle of the extremes. Considering this variance of workplace flexibility within high-end careers, those that offer more support in terms of balancing work and family are often the ones that end up attracting women. Colon and rectal surgery, along with pediatrics and veterinary medicine, are examples of professions with a lower career cost of family and consequently greater representation of women, as they have more regular hours and penalize women less for taking time off for family.

[Women Doctors Flock to Surprising Specialty](#)

## **Latest NSF Data on Ph.D. Recipients Shows Increased Participation of Women and Minorities**

A report by the National Science Foundation provides the latest data on the demographics of Ph.D. recipients, their fields, and their success after graduation. Overall, the number of research doctorates granted in 2009 rose 1.6% from 2008. With the exception of computer science, all scientific fields saw increases in the number of doctorates awarded. Increased representation of women accounted for nearly all of the overall increase in the number of science and engineering doctorates earned. There were also increases in the number of doctorates earned by racial and ethnic minorities, with the exception of Native American/Pacific Islanders. Despite several years of growth in the number of doctorates awarded to temporary visa holders, there was a 3.5% decline in 2008, with decreases in all fields of study.

This 2009 data reveals little change in the job prospects for doctorate recipients, with 70% reporting to be employed in “definite commitment” positions, a similar proportion since 2007. A growing percentage of these commitments are postdoctoral positions, as 2009 marked the greatest single-year increase in postdoctoral positions started during the 2004-09 period. Despite the steady overall percentage of post-graduation employment, there was variation within specific subfields; doctorate recipients in the life sciences reported a 2% gain in definitive commitments, while those in education, health and humanities fields saw a 2% decrease.

[Ph.D. Pipeline Expands Slightly](#)

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