



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

Keren Witkin, Ph.D., Editor  
Office of Research on Women's Health  
Office of the Director, National Institutes of Health  
United States Department of Health and Human Services

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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.

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### **AAMC Describes Increased Diversity in U.S. Medical School Faculty**

While nearly 50% of medical school students in the United States are women, and over 35% are underrepresented minorities, the profile of medical school faculty is much less diverse. A recent report by the Association of American

Medical Colleges (AAMC) investigated whether this situation is improving over time by analyzing whether women and minorities are better represented among recently hired faculty. To address this, they looked at full-time U.S. Medical School appointments organized into three twenty-year cohorts, representing those hired or promoted in 1969, 1989, and 2009. They found a higher level of diversity among faculty members new to their positions in 2009. For instance, among full professors new to academic medicine in 2009, 24% were women and 20.2% were non-white. In comparison, only 18.2% of full professors already established in their positions were women and 14.1% were non-white. This data indicates that there are indeed higher levels of diversity among new medical school faculty, suggesting that the demographics of medical school faculty are indeed improving over time. This trend was also seen in the 1989 and 1969 cohorts, although there were smaller percentages of women and minority faculty overall in those cohorts. For comparison, 18.7% of full professors were women in 2009, compared to 8.6% in 1989 and 4.7% in 1969. Similarly, 14.5% of full professors were non-white in 2009 compared with 9.5% in 1989 and 4.7% in 1969. The representation of women tended to decrease inversely to professional rank. In 2009, for example, 51.9% of instructors were women compared with 41.7% of assistant professors and 30.8% of associate professors and 18.7% of full professors. The data for non-white professors in these categories was similar, but less dramatic. While this data looks promising for increased diversity in medical school faculty, the authors point out that discussions must continue about whether these improvement rates are satisfactory and how policy changes might facilitate entry and advancement of women and minorities in medical school faculty.

[The Changing Demographics of Full-time U.S. Medical School Faculty, 1966-2009](#)

## **The White House Honors “Champions of Change” Who Support Women in Science**

Each week, the Obama Administration honors ordinary citizens making a difference in their communities as “White House Champions of Change.” In early December, the White House selected twelve men and women dedicated to the recruitment and retention of girls and women in science, technology, engineering, and mathematics (STEM). The group includes teachers, students, and professionals from industry and the non-profit world, all using innovative methods to achieve their common goal of increasing participation of girls and women in scientific careers. They participated in two panel discussions, introduced by Dr. James Holdren, Assistant to the President for Science and Technology, Director of the White House Office of Science and Technology Policy, and Co-Chair of the President's Council of Advisors on Science and Technology. Common themes addressed in the panels included the importance of role models, mentoring, and outreach, as well as creating strong formal and informal education programs. Valerie Jarret, Senior Advisor to the President and Chair of the White House Council on Women and Girls, spoke of the Obama Administration’s commitment to supporting women and girls as they enter STEM fields and throughout their scientific careers.

The twelve “Champions of Change” honored at this event were:

- **Bianca Bailey** of Howard University, President of Engineers without Borders
- **Barbara Bitters**, Assistant Director for the Career and Technical Education Team at the Wisconsin Department of Public Instruction
- **Tamara Brown**, Project Controls Engineer at Praxair, Inc
- **Angela Byars-Winston**, Associate Professor at the University of Wisconsin Department of Medicine
- **Judit Camach**, Executive Director, SACNAS (the Society for Advancement of Hispanics/Chicanos and Native Americans in Science)
- **Elizabeth Chatman**, Director of Teacher Professional Development, Science Museum of Minnesota
- **Baker Franke**, Teacher at University of Chicago Laboratory Schools
- **Jennifer Harper Ogle**, Associate Professor in Civil Engineering at Clemson University

- **Elisabeth Hayes**, Professor of English at Arizona State University
- **Bobby Shnabel**, Dean of the School of Informatics, Indiana University, Bloomington
- **Karen Thole**, Professor of Mechanical Engineering, Head of the Department of Mechanical and Nuclear Engineering, Pennsylvania State University
- **Avis Yates Rivers**, President and CEO, Technologies Concept Group

[Champions of Change: Girls and Women in STEM](#)

[Championing Change for Women in Science](#)

## **Dr. J Taylor Harden Retiring from NIH**

On December 31, 2011, Dr. J Taylor Harden left her position as Assistant to the Director for Special Populations at the National Institute on Aging (NIA), at the National Institutes of Health (NIH) to become the Building Academic Geriatric Nursing Capacity (BAGNC) Program Administrator at the American Academy of Nursing. Dr. Harden is a fellow of the American Academy of Nursing, New York Academy of Medicine, and the Gerontological Society of America (GSA). She earned her doctorate in nursing from the University of Texas at Austin, and subsequently became a tenured associate professor at the University of Texas Health Science Center at San Antonio. She left Texas in 1994 to join the National Institute of Nursing Research as a program official, specializing in grants pertaining to aging, women's health, minority health, and behavioral research. In 1997, she became the Assistant to the Director for Special Populations at NIA. While at NIA, Dr. Harden took the lead on diversity efforts, including the NIA Minority Task Force and organized research and training programs that emphasize special populations and early careers in aging, such as the NIA Summer Institute on Aging Research. She also served as the Acting Deputy Director of NIA in 2008. Throughout her career, Dr. Harden has received numerous awards, including the 2005 GSA Task Force on Minority Issues Outstanding Mentorship Award, and the NIH Director's Award three times. Dr. Harden has been an extremely active and valuable member of the NIH Working Group on Women in Biomedical Careers. As chair of the Working Group's Women of Color in Biomedical Careers Committee, she was instrumental in the creation of [the Women of Color Research Network](#) (WoCRn), a social media site for women of color and all others interested in diversity in the scientific workforce. Members of the Working Group will miss Dr. Harden's enthusiasm and dedication. According to Dr. Vivian W. Pinn, previous Co-Chair of the Working Group and former Director of the Office of Research on Women's Health (ORWH), "Taylor brought to the Working Group her valuable expertise from many years at the NIA advising and mentoring both women and men in navigating the NIH grants process and advancing their careers in research. The WoCRn is but one example of Taylor's innovative contributions to support women and diversity in research careers, her dedicated assistance in many efforts of the ORWH, and her dedication to the mission of the NIH. Her presence will be tremendously missed."

## **New Study Contradicts Common Myths about Gender and Math Performance**

In their recent study, Dr. Jonathan Kane and Dr. Janet Mertz of the University of Wisconsin set out to rigorously test existing hypotheses about the performance of women in mathematics. They measured international math performance using 2003 and 2007 data from the Trends in International Mathematics and Science Study (TIMSS), and 2003 and 2009 data from the Organisation for Economic Co-operation and Development (OECD) Program for International Student Assessment (PISA). Looking at the mean TIMSS scores for all male and female participants, they found no statistically significant gender difference in math performance, except for the 2007 eighth graders, where girls overall scored five points higher than boys. Using the Gender Gap Index (GGI) as a measure of gender equity, they found a positive

relationship between disparity in math performance and gender equality, contrary to previously published results. They also tested the hypothesis that males have more variability in their intellectual ability, and found no consistent evidence to support this. Finally, they examined whether gender differences in math performance correlated with religion, poverty, or education of girls in single sex classrooms. They found that religion and classroom composition failed to correlate with math performance, and that gross domestic product only correlated in poorer countries. Their data best supports the gender-stratified hypothesis, which claims that differences in math performance reflect cultural and socioeconomic factors rather than innate ability. Kane and Mertz point to factors such as school quality, school attendance, and parental expectations as meaningful performance indicators, and suggest that cultures with more opportunities for women are advantageous to children, as mothers' educational and employment status often influence their children's performance.

[Debunking Myths About Gender And Mathematics Performance](#)

## **New Resource to Provide Comprehensive Information on STEM Education**

A new website launched on November 30, 2011 aims to become "The One Stop Shop for STEM Education."

[Stemconnector](#) is a collaborative effort of a large group of companies, non-profit organizations, STEM-focused research and policy organizations, academic institutions, and professional societies. The site features a directory profiling more than 3700 STEM organizations nationwide, links to resources, a blog, and STEM-related information organized by state, including key companies and organizations, current initiatives, and report cards assessing STEM performance. As this newly-launched site expands, the sponsors hope to provide comprehensive information on STEM opportunities in an easily-searchable format. Their ultimate goal is to facilitate connections between STEM students and the companies, organizations, and institutions that can provide support, professional development, or career opportunities.

[Business Wire Press Release](#)

## **Women Scientists in Action: Suzanne O'Neill, Ph.D.**

Suzanne O'Neill, Ph.D., is an Assistant Professor of Oncology in the Cancer Control Program at the Lombardi Comprehensive Center at Georgetown University. She is a behavioral scientist and licensed clinical psychologist who studies decision-making and health behavior relevant to cancer prevention and control.

Dr. O'Neill studied psychology as an undergraduate at the University of Notre Dame. Her first research interests were in the areas of risk and resiliency. "I wanted to understand what allowed some people to cope with stressful or traumatic events and adversity and to even thrive after being exposed to such circumstances," explains Dr. O'Neill. While there, she worked with Dr. David Cole, who is now at Vanderbilt, researching child depression and social cognitive theory. According to Dr. O'Neill, Dr. Cole "was the first in a long line of excellent, generous mentors in my career."

After graduation from Notre Dame, Dr. O'Neill received a Master's degree in counseling psychology from the University of Illinois at Urbana-Champaign, followed by working for two years as a research assistant in the Human Behavioral Pharmacology Lab of Dr. Stephen Higgins at the University of Vermont.

She then entered a doctoral program in clinical psychology at the University of Delaware. In addition to coursework and teaching, she participated in a clinical internship in behavioral medicine at the Medical University of South Carolina Charleston DVA consortium. She performed her dissertation research at the Lombardi Comprehensive Cancer Center at Georgetown University, working on studies of behavioral issues around BRCA1/2 testing. This was a pivotal experience for Dr. O'Neill, as it was her first exposure to the field where she remains to this day. She says, "I became very interested with how individuals would interpret, apply and cope with the individualized risk information that genetic susceptibility test results provide and how this translates to health behavior decisions."

After receiving her doctorate in 2004, Dr. O'Neill received a competitive postdoctoral fellowship to join the Cancer Control Education Program at the University of North Carolina Lineberger Comprehensive Cancer Center. While there, she gained expertise in the fields of cancer prevention and control. Her primary project involved assessing interest among breast cancer patients towards the use of genomic tests that look for biomarkers of tumor recurrence. They found that the majority of women in their study would eagerly take these tests to make informed decisions about treatment. However, they found that emotional factors colored treatment decisions. During this time, she also worked pro bono as a psychologist at the UNC Hospital Department of Physical Medicine and Rehabilitation, where she specialized in working with patients recovering from traumatic injuries. She then joined the Social and Behavioral Research Branch of the National Human Genome Research Institute (NHGRI) at NIH, winning a prestigious NIH Women's Health Fellowship, funded by Batelle through the Foundation for the National Institutes of Health in collaboration with the NIH Intramural Program on Research on Women's Health, the Office of Research on Women's Health, and the Office of Intramural Research. At NHGRI, she trained with Dr. Colleen McBride, continuing her interest in investigating clinical applications of genomic advances. Dr. McBride expressed pride in her former fellow, saying "Suzanne's work is essential to inform best practices in applying genomics-informed treatments for cancer patients."

Dr. O'Neill joined the Georgetown faculty in 2008 as a tenure-track assistant professor, where she studies the clinical integration of cancer genomics and other novel technologies. Her work is funded by the American Cancer Society and the Prevent Cancer Foundation and she is Co-Investigator on several NIH-funded grants. She serves as a member of several national research organizations, including as an executive board member of the American Society of Preventative Oncology and as Co-Chair of the Health Decision Making special interest group of the Society of Behavioral Medicine. To date, Dr. O'Neill has authored twenty-nine peer-reviewed publications, as well as a book chapter on public health genomics.

Outside of the office, Dr. O'Neill enjoys spending time with her husband and young daughter. When asked how she manages to juggle family life with a demanding career, she said, "I've had to improve my time management, ability to delegate, flexibility and ability to prioritize, which benefits my work now that I've been at it for a few years." She also graciously acknowledges all of the mentors along the way who have fostered her interest in science and contributed to her career success.

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