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## Women Vastly Underrepresented in Academia

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By Dana Young  
WeNews correspondent

*A female chemistry professor decided to count the number and calculate the percentage of women and minority men on university science faculties. The results, to be released officially Thursday, document a widespread lack of diversity in academia.*

(WOMENSENEWS)--The first comprehensive national analysis of college faculty positions held by female and minority males at the nation's top math, science and engineering departments will be released Thursday.

The report finds that only between 3 percent and 15 percent of full professors at top engineering and science departments are women, although the percentage of women attaining doctorates during the last 20 years is substantially higher.



Donna Nelson

"People have been aware of this problem for a long time," said Dr. Donna Nelson, the author of the study and a chemistry professor at the Norman campus of the University of Oklahoma. "But until now no one really knew what the figures were; no one had quantified it so we had a national picture."

Nelson will end the vagueness about the magnitude of the faculty gender gap when she presents the results of her research at a Washington, D.C., press conference and congressional briefing sponsored by the American Association for the Advancement of Science and the American Chemical Society.

Mae Jemison, the first African American female astronaut, now a professor at Dartmouth College, will be among those who will participate in the presentation of the study.

At the top 50 universities for electrical engineering, Nelson counted the number of women and minority members among the roster of professors, associate professors and assistant professors from the year 2002. She found only 6.5 percent of electrical-engineering faculties was female. During the same time period, she found only 6.6 percent of faculty at the top 50 physics departments was female. Women's representation in mechanical-engineering departments during the same time period was barely better at 6.7 percent.

Top-ranked departments in disciplines such as political science, biology and psychology scored much higher in 2002. But even in sociology--the best-of-the-best in terms of female representation--on average, only 35.8 percent of the faculty was female.

Nelson and her co-author, Diana C. Rogers, also from the University of Oklahoma, say their results debunk a persistent theory about women's absence from top scientific research posts. The lack of female faculty members at top universities is often chalked up to too few women having doctorates to allow the university faculty to become between 15 percent to 30 percent female. (Similar arguments are made about the lack of minority men.) After surveying the top 50 universities for each of 13 specific disciplines, however, Nelson found an adequate supply of women with doctorates for most disciplines in the past 20 years.

### **Acute Shortage in Engineering, Physics**

"When I started this study in 1999, I was surprised to find out that no other organization had put this information together," Nelson said of her research, which was spurred on by interest among her students.

The Nelson study delineates a gender gap that drew national attention three years ago. Then, representatives of the country's nine most prestigious universities gathered in Cambridge, Mass., to consider gender equality in academia. After the meeting, participants--including Harvard University and Massachusetts Institute of Technology--issued a joint statement on how the institutions intended to improve their record for hiring, mentoring and promoting women.

"What is really upsetting about this," Nelson said, "is that after the conference in 2001, you have many universities now coming out and saying they are making great improvements. In some cases they are. But even when you speak to women in departments that are relatively diverse, many of them are not happy and complain of lower pay than men and a lack of promotion and recognition."

In addition to the inadequate doctorate pipeline, arguments justifying the lack of diversity in science faculty have also included high attrition rates among women, poor work atmosphere for women and women's personal lifestyle choices.

### **Signs of Progress**

Some universities are making changes, or at least taking a closer look at their own faculty statistics. Princeton's president, Shirley Tilghman, appointed a task force after the 2001 conference, to study female bias on campus. The report indicated that women on faculties of the sciences and engineering departments at Princeton felt less job satisfaction and less of a sense of inclusion than men. The panel conducting the study requested a \$10-million fund to promote hiring and promotion of women.

Duke University also completed a yearlong study of diversity from summer of 2002 to summer of 2003. It revealed a fall off in the number of women with doctorates pursuing faculty positions and an uneven distribution of women across disciplines. Most strikingly, it also found that, while many departments had increased their female faculty, the percentage of female assistant professors had not increased in 10 years.

"Women in the study talked about a code of conduct that downplays the importance of work-life issues," said Susan Roth, professor of psychology and special assistant to the president. Roth chaired the executive committee that overlong the study, called the "Women's Initiative."

This past summer Duke implemented two policies to attract and retain female faculty. The first is a semester of paid leave in the case of childbirth, adoption or family illness. The second is a "tenure clock relief" program. Faculty members at universities usually have a set amount of time--a so-called tenure tract--to qualify for coveted tenure posts that offer a high degree of job security. At Duke, that is usually a six- or seven-year period that often coincides with a woman's decision to start a family. The new program allows women under certain conditions to "stop the tenure clock" and preserve their tenure tracks.

### **Difficult Set of Problems**

The Nelson data points to a difficult set of problems, according to Jocelyn Samuels, vice president of education and employment at the National Women's Law Center in Washington.

"The opposite of what you would hope to see despite years of focus on fixing these problems is what has happened," said Samuels. "If the problem were simply that there weren't enough women and minorities with Ph.D.s to fill the faculty positions, we could address that one thing. Dr. Nelson's study provides us with a new window into the extent of the problem. Once women and minorities make it through the educational system, they are facing yet another set of barriers at the employment level."

Dr. Efthimia T. Kokotos Leonardi, an associate adjunct professor in the biology department at New York University, and a medical education consultant, feels as many do, that there is more to the issue than blatant sexism. She feels the private sector is luring many women from academia.

"There is no doubt in my mind that discrimination against women in research faculties is still pervasive, I have experienced it myself," Leonardi said. "But what we really need to be asking now is 'where are these women with Ph.D.'s going after graduation?'"

Dr. Judith P. Klinman, a professor at the University of California, Berkeley sees a lack of adequate recruitment of female candidates for science department positions as one of Berkeley's greatest obstacles in creating equality. For the past three years, Klinman had served as chair of the chemistry department at Berkeley. In that time she was often frustrated by her inability to hire a single woman for the nine positions filled under her watch. She did manage to appoint three female vice chairs.

"Only 10 percent of all applicants here are women, and that 10 percent only gets smaller as you narrow your searches to sub-disciplines" she said. "I think we need to broaden our candidate searches to avoid eliminating good candidates and, most importantly, we have to find a way to make women feel more comfortable because we are missing out on a lot of talent."

*Dana Young is a freelance writer in New York.*

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**For more information:**

University of Oklahoma Department of Chemistry and Biochemistry--  
The Nelson Diversity Surveys:

<http://cheminfo.chem.ou.edu/faculty/djn/diversity/top50.html>

Association for Women in Science:

<http://www.awis.org/>

Duke University--Women's Initiative:

"Despite Progress for Women at Duke, Equitable Environment  
Remains Elusive, Study Finds":

[http://www.duke.edu/womens\\_initiative/news.htm](http://www.duke.edu/womens_initiative/news.htm)

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