

NEWS

Women at the top

Women faculty members in science, maths and engineering are climbing the academic ladder at top US research universities, according to a report released on 2 June by the US National Research Council. The study finds that women do well once they are in the pipeline for academic opportunities, but that they are still under-represented in the top ranks.

"There's great equity in terms of job interviews, hiring and promotion," says Sally Shaywitz, co-chair of the committee that wrote the report and co-director of the Yale Center for Dyslexia and Creativity in New Haven, Connecticut.

Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty looks at how women fare at key points in their academic careers compared with men. The congressionally mandated study surveyed almost 500 departments and more than 1,800 faculty members at 89 research-intensive universities in 2004 and 2005. It focused on six disciplines: biology, chemistry, civil engineering, electrical engineering, maths and physics.

A higher percentage of women applying for their first job at major research universities get interviews and receive offers for tenure-track positions than their representation in the candidate pool would predict. But many women PhDs are not applying for these positions. Between 1999 and 2003, women earned 45% of biology PhDs, but comprised 26%

of the applicants for faculty positions at the universities surveyed.

Men and women faculty members spent similar amounts of time on teaching, research and service, and there was little difference in the number of refereed publications, grant funding or award nominations between the two groups. The salaries of male full professors averaged about 8% higher than female full professors', but that disparity could be the result of differences in seniority, says the report.



Sally Shaywitz.

Representatives of women researchers are more critical. "If you're only looking at elite research universities with the very top women being recruited, you will see relatively few gender-specific inequities in appointments and promotions. To conclude that there are no problems is unwarranted," says Phoebe Leboy, president of the Association for Women in Science and professor emerita of biochemistry at the University of Pennsylvania in Philadelphia.

That point was made by physicist Claude Canizares, committee co-chair and vice-president for research at the Massachusetts Institute of Technology in Cambridge. He called for longitudinal studies on why women do not apply for faculty positions at research-intensive universities. "We studied a subset of women — the ones who do make it," he says. "We don't know anything about the women who left." ■

Hannah Hoag is a science journalist based in Montreal, Canada.

POSTDOC JOURNAL

Befriending rejection

A particularly memorable scene from the film *Apocalypse Now* — set in the Vietnam War — features Colonel Kurtz, played by Marlon Brando, lazily articulating the line: "You must make a friend of horror." When I become wealthy and remake this film, I will set it in academia. In my version, Professor Kurtz says "You must make a friend of rejection."

Rejections take a variety of forms, from impersonal platitudes in a form letter to seemingly personal comments in a review. Since graduating from college, I

have received many such rejections. At first, I took them personally. I wrote (but ultimately did not send) a vitriolic letter in response to the review that sunk my first paper. The year I had five different papers rejected was a low point, a time when I questioned whether I could continue in academia. But now, after I've eked out a few acceptances, I see that rejection is simply part of academia.

I recently started receiving responses from my faculty applications, and the hours of work I spent on those

applications are being dismissed by a few sentences in a letter or a few lines in an e-mail.

But, just as negative reviews have strengthened my scientific writing, so will these rejections strengthen my job application. I will reword, rewrite and, above all, keep publishing. Then, I propose with confidence, I will find my job. Even without the advice of Professor Kurtz, I have made a friend of rejection. ■

Sam Walcott is a postdoc in theoretical biophysics at Johns Hopkins University in Baltimore, Maryland.



IN BRIEF

Biosafety training

The University of Texas Medical Branch in Galveston has received US\$5 million in federal funds to expand its biosafety-training programme and facility. The university's course has trained 1,200 infectious-disease researchers and others since it started in May 2005.

The new training centre, one of only a few in the United States, is slated for completion within two years. It will include a more comprehensive biosafety level-4 component as well as more extensive facilities, and will offer training for biosafety support staff and engineers as well as researchers. Trainees from outside the federal government are eligible to apply.

Science for physicians

Medical education in the United States should place more emphasis on basic scientific competence, says a report published this month.

Scientific Foundations for Future Physicians, by the Howard Hughes Medical Institute and a committee of the Association of American Medical Colleges (AAMC), warns that pre-med and medical-school curricula have not kept pace with advances in scientific knowledge. Areas for improvement include a better understanding of the natural sciences in fields such as the biology of microorganisms and the principles of pharmacology. The AAMC is studying the report as part of a review of its medical college admission test.

Venezuela science boost

The Venezuelan government announced on 3 June a grant of 336 million bolivars (US\$156 million) to the country's research universities, with the largest amount, 66 million bolivars, going to the Central University of Venezuela in Caracas. Science and technology investment has risen in recent years to 2.69% of gross domestic product, said science minister Jesse Chacón. The number of research scientists working in Venezuelan universities more than tripled between 1999 and 2008, from 1,689 to 6,038, he said. However, government-funded institutions recently had their budgets cut by 6%, although salaries were not affected (see page 898).