Lack of female profs a stubborn statistic

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Laura Powers had the choice: a post as a research biologist at North Carolina State University - or an internship working with the poor.

The professorship came with money for a lab and the possibility of tenure. She picked the internship.

"It was painful. I made the decision and then cried for a week," said Powers, who had been a plant biologist at Colorado State University. "I just didn't see myself as a hard-core researcher."

Powers' story is part of a national trend that universities had hoped to remedy decades ago: Women, even after years of training, continue to leave universities for reasons ranging from personal choices to institutional bias.

The result is that men continue to dominate faculties, with the numbers most striking in science and engineering departments.

Those numbers for the University of Colorado at Boulder aren't likely to change soon, according to a new, federally funded study.

The analysis concluded that even if 50 percent of all new CU hires were women, it would take 28 years for women to make up 40 percent of the faculty.

Universities across the country are struggling to deal with similar statistics. The National Science Foundation has handed out millions of dollars in the past five years for programs to promote women in science, including more than $3.7 million to CU.

In May, Harvard University president Lawrence Summers announced the university would spend $50 million in the next decade to improve the "climate" for women faculty. That may include mentoring programs for women, child care and late-night transportation, Harvard reported.

Administrators worry that a lack of diversity in faculty means universities will continue to struggle to recruit diverse students to science and technical fields, and that the nation's workforce will suffer.

There are other reasons for concern, said Robyn Marschke, a co-author of the CU study: "justice, social equality and equal opportunity inside the ivory tower," she said. Marschke is a researcher at CU-Colorado Springs.

In 2004, women composed less than 6 percent of CU's tenure-track physics faculty and 11 percent of the aerospace engineering faculty, according to Marschke's figures.

That's despite the fact that nationally, more women than men have graduated from college since 1982, according to the federal Department of Education.

"At some point I just began thinking, 'How long is this going to take?'" Marschke said.

She and her colleagues found that at every step of the way from graduate student to tenured professor, CU's academic pipeline leaked more women than men.

Marschke said she's not sure where those women are going. Some women may leave for other universities, others may take time off to have children, others still may find academic culture less friendly than they'd hoped.

For Powers, who now works on contracts for the U.S. Agency for International Development, the choice was primarily about academic culture, which seems to value grant-earning prowess over substance.

"I wasn't interested in this life where I'd spend all my time writing proposals, getting funding, doing the work, writing it up, getting more funding," she said.

Marschke and her co-authors were not able to find and interview the women who left the CU system, but they did quantify the leaks in CU's pipeline.

The problem was compounded by the tendency of professors to hold their jobs for decades - which slows change - and tiny but persistent differences between men and women in promotion and hiring rates, according to the new study.
The analysis concluded that CU's faculty may continue to be mostly male for 30 years or more.

"It is disappointing we're not further along," said Jack Burns, CU's vice president for academic affairs and research. "Thirty years ago, we were all optimistic we'd be closer to parity today. These kinds of social changes take a long time."

CU is using its National Science Foundation grant to analyze diversity data such as Marschke's to use in management training of the university's leaders and to host informal discussions among interdisciplinary groups of women.

Patricia Rankin, a tenured physicist and associate dean for natural sciences at CU, said she has been surprised by what she has heard in those discussions.

"A lot of what comes across is just how isolated faculty feel in their first few years here," said Rankin, who is also co-author of the new analysis.

"It's already a stressful job, and if you can't share the stresses with other people ... it's even harder," Rankin said.

Sociological research suggests that for women, having a supportive work community may be more important than for men, Rankin said, and academia can sometimes feel isolating and insular.

Other studies suggest that women may seek different rewards than men, such as work with real-world impact or social importance.

That resonated with Powers. "I like the fact that my life involves something more than the esophageal structure of one nematode," she said.

For most women, the days of overt discrimination are over, said CU astrophysicist Erica Ellingson. "No one is going to say to my face 'You can't be a scientist,'" she said.

But more subtle problems remain. "Things having to do with climate, choices, stumbling blocks women may feel more strongly than men," Ellingson said.

Harvard's ambitious program for women faculty came after a national furor over a suggestion from Summers, the university president, that differences in "Intrinsic aptitude" might explain why women are underrepresented in science and engineering.

Ellingson said CU is clearly trying to make things work for women.

When she and her physicist husband were trying to find academic positions in the same town, CU offered them the unique opportunity to share a single tenure-track job for several years.

There also are positive things about academia that should resonate with women, Ellingson said. Academic schedules, for example, are flexible. Ellingson said she can come in late if one of her children is sick, take a break for a soccer game, or occasionally work at home.

"If I were in a corporate environment," she said, "that wouldn't work."

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