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LIFE'S WORK

## Diversity Isn't Rocket Science, Is It?

By [LISA BELKIN](#)

BACK in the bad old days, the workplace was a battleground, where sexist jokes and assumptions were the norm.

Women were shut off from promotion by an old boys' network that favored its own. They went to meetings and were often the only women in the room.

All that has changed in the last three decades, except where it has not. In the worlds of science, engineering and technology, it seems, the past is still very much present.

"It's almost a time warp," said Sylvia Ann Hewlett, the founder of the Center for Work-Life Policy, a nonprofit organization that studies women and work. "All the predatory and demeaning and discriminatory stuff that went on in workplaces 20, 30 years ago is alive and well in these professions."

That is the conclusion of the center's latest study, which will be published in the Harvard Business Review in June.

Based on data from 2,493 workers (1,493 women and 1,000 men) polled from March 2006 through October 2007 and hundreds more interviewed in focus groups, the report paints a portrait of a macho culture where women are very much outsiders, and where those who do enter are likely to eventually leave.

The study was conceived in response to the highly criticized assertion three years ago, by the then-president of Harvard, that women were not well represented in the science because they lacked what it took to excel there.

The purpose of the work-life center's survey was to measure the size of the gender gap and to decipher why women leave the science, engineering and technology professions in disproportionate numbers.

The problem isn't that women aren't making strides in education in the hard sciences. According to a [National Science Foundation](#) report in 2006, 46 percent of Ph.D. degrees in the biological sciences are awarded to women (compared with 31 percent two decades ago); 31 percent of the Ph.D. degrees in chemistry go to women, compared with 18 percent 20 years ago.

And, women enter science engineering and technology (known as the SET professions) in sizable numbers. In fact, 41 percent of workers on the earliest rungs of SET career ladder are women, the study found, with the highest representation in scientific and medical research (66 percent) and the lowest in engineering (21 percent).

They also do well at the start, with 75 percent of women age 25 to 29 being described as “superb,” “excellent” or “outstanding” on their performance reviews, words used for 61 percent of men in the same age group.

An exodus occurs around age 35 to 40. Fifty-two percent drop out, the report warned, with some leaving for “softer” jobs in the sciences human resources rather than lab bench work, for instance, and others for different work entirely. That is twice the rate of men in the SET industries, and higher than the attrition rate of women in law or investment banking.

The reasons pinpointed in the report are many, but they all have their roots in what the authors describe as a pervasive macho culture.

Engineers have their “hard hat culture,” while biological and chemical scientists find themselves in the “lab coat” culture and computer experts inhabit a “geek culture.” What they all have in common is that they are “at best unsupportive and at worst downright hostile to women,” the study said.

The 147-page report (which was sponsored by [Alcoa](#), [Johnson & Johnson](#), [Microsoft](#), [Pfizer](#) and [Cisco](#)) is filled with tales of sexual harassment (63 percent of women say they experienced harassment on the job); and dismissive attitudes of male colleagues (53 percent said in order to succeed in their careers they had to “act like a man”); and a lack of mentors (51 percent of engineers say they lack one); and hours that suit men with wives at home but not working mothers (41 percent of technology workers says they need to be available “24/7”).

Josephine, a computer programmer whose boss at a start-up a decade ago nicknamed her Finn, stands out among the accounts.

“It turned out to be really useful to allow some of my colleagues to imagine I was a man,” the worker is quoted as saying. The e-mail messages Finn received were strikingly different than those received by Josephine. Not only did they contain “brutal locker room stuff, that was hard to take,” but also important information shared by colleagues who wanted to keep each other in the loop. Josephine got none of that, making the advantage of being a man in a male world quite clear.

Her advice? “Get yourself a Finn,” Josephine said. “He’s as necessary today as he was in 1997. Back then I thought that Finn would outgrow his usefulness, that there would come a day when Josephine was in the know. It’s sad, but that day hasn’t happened.”

This portrait of a male-dominated culture comes as no surprise to Carol B. Muller, the chief executive and founder of [MentorNet](#), an online network for women and minorities in engineering

and science.

The reason the “hard sciences” are “so much worse than other fields,” she said, is multifaceted and rooted in the societal perception that women simply are not as good in math and science as men are.

This notion persists despite the dozens of studies that show the abilities of boys and girls are equal well into high school.

“Most people just don’t look at a woman and see an engineer,” Ms. Muller said.

The result, she said has been a work environment that dismisses women. Female employees come up against “the kind of culture that evolves when women are in the extreme minority,” she said. (Think “Lord of the Flies.”) The ideal worker in this realm is “the hacker who goes into his cubicle and doesn’t emerge for a week, having not showered or eaten anything but pizza. Those people exist and they are seen as heroes.”

THERE is a new spotlight being pointed at these testosterone-soaked corners lately, a result of the fact that even in a faltering economy, the technology and science industries need workers.

The [Bureau of Labor Statistics](#) predicts that job opportunities in these fields will grow five times faster than in other industries. Demand for information technology workers, for instance, is projected to increase by 25 percent over the next 30 years, while the number of available workers is expected to shrink over the same period.

Wouldn’t it make financial sense, the study concludes, for these employers to find a way to halt the exodus? And will that incentive be sufficient to transform a culture that has been resistant to calls for change?

A handful of companies are trying. The report highlights 14 pilot programs, many of them implemented by the report’s sponsors, that are designed to retain and promote women.

At Cisco, for instance, where only 16 percent of employees are women, the company’s Executive Talent Insertion Program aims to add about a dozen senior women to its management ranks within an 18-month period ending this year.

This would provide mentors and role models as well as alter the gender landscape. The program at Johnson & Johnson, called “Crossing the Finish Line,” tutors women in leadership skills.

Reducing the current attrition rate by 25 percent would add 220,000 SET workers to the economy, Ms. Hewlett said.

And that just might be a figure that even the unshowered geek in the cubicle can respect. “Cultures only change because they have to,” she said. “Maybe it’s finally time.”

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