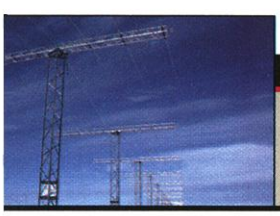
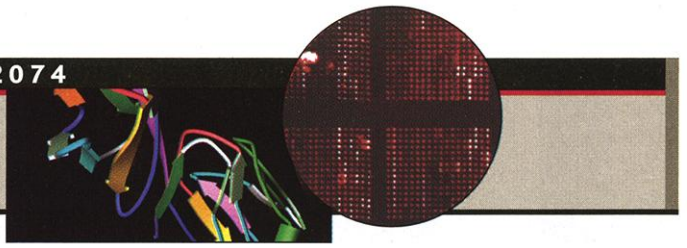




25% within a decade. "The worse thing about Caltech has been the low numbers [of women]," says faculty chair Marianne Bronner-Fraser, a biologist who was chosen this summer as the first woman to hold that elected position. The number of women in each Caltech division (department) outside the humanities varies from 18% in biology to 5% in engineering.

Women wanted. Sargent panel sets high target.

Caltech president David Baltimore cautiously embraced the target, which he estimates will require some 40% of new hires over the next decade to be women. "It's not an unattainable goal, but it will be very difficult to achieve," he says. With faculty growth unlikely, he says that the shift will have to come primarily through replacements. The committee also called for a fund-raising campaign to bolster the number of women faculty members and to attract more women students.

The survey, which included all women and a sample of men, found that more than half the women say they have encountered gender bias, and 30% recalled "adverse interactions" with their chairs over gender issues. Women are three times as likely as men to be dissatisfied with their visibility at Caltech, and less than half expressed satisfaction with their jobs, compared with 73% of men. Tenure decisions are another sticking point: "As many as 70% of women who have successfully attained tenure have at least reservations about the process," the report notes, compared with just 19% of men.

The small numbers of women made it hard to determine the reason for a disparity in salaries between men and women, says Sargent. It also forced the committee to abandon attempts to investigate differences in lab space—a key metric in the MIT report.

The report also urges Caltech to hire women as senior administrators, and Baltimore says he is committed to making changes in the male-dominated upper tier as positions come open. None of the six current division chairs is a woman, although last month biologist Barbara Wold—who also served on the Sargent panel—was named director of the Beckman Institute, a biology and chemistry research facility on campus.

–ANDREW LAWLER

CREDIT: (TOP) CALIFORNIA INSTITUTE OF TECHNOLOGY; SOURCE: *FROM SCARCITY TO VISIBILITY*, NATIONAL RESEARCH COUNCIL (2001)

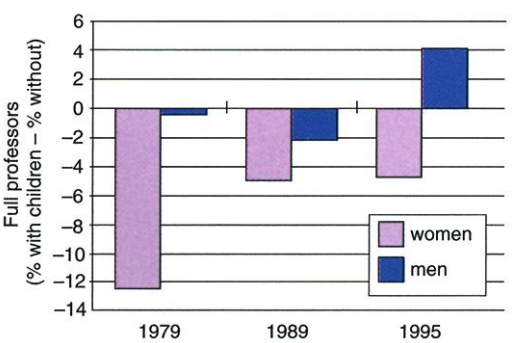
WOMEN IN SCIENCE

Men Still Have Edge in U.S. Science Careers

Having children improves a man's chances of becoming a full professor but hinders a woman's progress in academia. That's one of many provocative findings from a National Research Council (NRC) panel that has been exploring gender differences in the careers of U.S. scientists and engineers.

Issued last month, the panel's 340-page report* eschews the usual analysis of existing studies with policy recommendations. Instead, the panel did its own research on gender differences in the scientific workforce, mining four versions of two ongoing federal surveys. Its conclusion—that men retain an edge that cannot be explained by any objective criteria—may be disturbing to those who think that discrimination is a thing of the past.

"There's clear evidence that women have been treated unfairly," says panel chair J. Scott Long, a sociologist at Indiana University, Bloomington, and a scholar in the field of women's studies. "It's also clear that marriage and family issues are major factors that need to be addressed." Although the five-member panel was not asked to make recommendations, its report suggests that employers consider policies to help "promising employees with young families." It also calls on top research universities to revise graduate school admissions practices to attract and retain more women. "I think every university should do the type of review" carried out by the Massachusetts Institute of Technology and Caltech (see previous story), says Long, "to see if there are current policies that are discriminatory or past practices that need to be addressed."



The family effect. Married women with children are less likely to be full professors than those without. The opposite is now true for men.

Among the panel's findings:

- Tenure is becoming more elusive for women than for men. Comparing data in the 1995 and 1999 surveys, the panel discovered that the share of academics in tenure-track positions dropped from 70% to 55% for women and from 82% to 72% for men.
- Male graduate students are more likely than women to get jobs as research assistants; the difference ranges up to 9% in mathematics, although the gap is narrowing for all disciplines except those in the physical sciences.
- The salary gender gap is widening among more senior academics. Tenure-track men who earned their Ph.D.s in 1979 earned 10% more than women from that class, compared with a 6% difference for those with degrees from 1975.

"Women certainly represent a growing percentage of the scientific workforce," Long notes—from 7% in 1973 to 22% in 1999. "But they're finding a tougher job market, especially in academia."

–JEFFREY MERVIS

* *From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers* (www.nap.edu/catalog/5363.html)

SWISS BIOTECH

Government Shoots Down GM Plant Trials

ALLSCHWIL, SWITZERLAND—In a blow to Swiss biotechnology, the government has rejected a high-profile application to conduct field trials of genetically modified (GM) wheat. The decision, now being appealed, has caused widespread consternation among Swiss scientists, who argue that it amounts to a de facto moratorium on field tests of any transgenic plant. Five members of the federal biosafety commission have resigned in protest, including its president, Riccardo Wittek. "If I were working in plants," Wittek says, "I would leave the country."

In November 2000, Christof Sautter of the Institute for Plant Sciences at the Swiss Federal Institute of Technology (ETH) in Zürich sought permission to sow, on a small outdoor