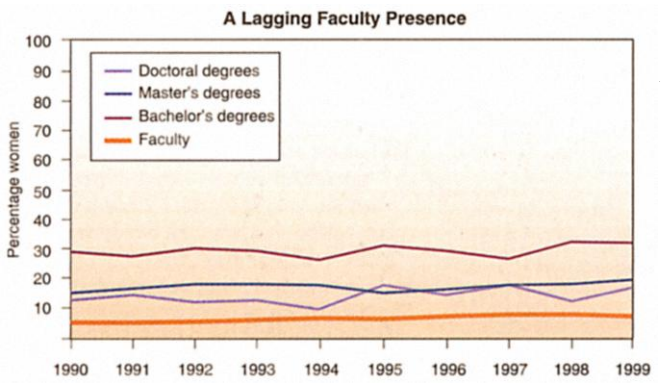
WOMEN IN ACADEMIA

Engineers Marginalized, MIT Report Concludes

BOSTON—A 1999 report that documented the plight of female researchers at the Massachusetts Institute of Technology (MIT) sparked a heated national debate about the need to improve the status of women scientists in academia. Now a new study of MIT's School of Engineering cites a host of similar barriers, leaving dean Thomas Magnanti to conclude that "MIT is not a hospitable environment" for many women.



Behind the times. The percentage of women earning MIT engineering degrees far outstrips their presence on the engineering faculty.

The largest of MIT's schools, engineering also has the lowest percentage of female professors—fewer than 10% of the school's 357 faculty members. Those hired are subject to "a consistent pattern of marginalization," states the 30-page study, which Magnanti commissioned in 1999 as one of four reviews of individual schools. Women's representation is far less than in the overall student body, which declines from the first to the final degree (see chart). Unlike the 1999 report on the school of science, however, the engineering study did not find significant inequities in salary and space based on gender. But there are "more subtle biases" that may be harder to redress, Magnanti says, including a dearth of women faculty members on Ph.D. committees and in senior administrative posts.

"Simply put, this situation is unacceptable," he says in a letter accompanying the report, which contains narratives along with some grim statistics. Magnanti also endorses the report's recommendations, which include doubling the percentage of women engineers in a decade, hiring consultants for job searches, and holding workshops to increase gender awareness. "Barriers persist," he writes, "and all too many of us remain oblivious to them."

MIT engineer Lorna Gibson, who chaired the study, says that much of the exclusion "is not malicious; it's unconscious." Such behavior takes a variety of forms. Gibson recalls that she was typically the one asked to cover for male colleagues on sabbatical. "It was like being a substitute teacher" rather than a valued professor, she says. That attitude changed, however, once she pointed out the disparity. And some women had never been asked to serve on a Ph.D. committee, a situation that Magnanti says he found "stunning."

The situation is better on the pay front. In late 1995, female engineers requested a salary review, which resulted in significant increases. Additional boosts followed a 2000 review. "The data suggest that salary inequities have occurred in the School of Engineering" but have since been addressed, the report concludes.

With regard to hiring practices, the engineering faculty has twice as many women as a decade ago, and this year three women accepted faculty positions for 2002. But the growth has been uneven. Between 1990 and 1998, for example, the electrical engineering and computer sciences department, one of the largest, hired 28 men and no women, although it has added three women since then. Between 1981 and 1999, according to the report, nearly three times as many women as men rejected job offers, citing "the difficulty in collaborating with colleagues."

Hiring women is one thing; keeping them is another. In the mechanical engineering department, for example, only one of the five women hired between 1987 and 2001 is still at MIT. "We need to make this a more welcoming environment," Magnanti says. Toward that end, MIT is modifying its family leave and child-care policies. The dean also has agreed to use consultants to search for qualified women and to examine why women reject MIT offers at a higher rate than men do. But Magnanti concedes that doubling the percentage of women in a decade will be "a stretch."

Women account for only 15% of MIT's total faculty, and reports from the architecture and management schools found smaller but similar numerical imbalances. There were no signs of salary inequities based on gender in the humanities school, which has the highest percentage of women faculty members.

Magnanti, along with Gibson and other women engineers, hopes that the report will extend the debate launched by the science report and serve as a model for other academic institutions. "This is not just an MIT problem," says Gibson. MIT officials also hope to lead the way in fostering diversity among female faculty members, although provost Bob Brown did not offer specific proposals at a recent meeting of minority women scientists.

The fact that "MIT is saying everybody should pay attention" is an important statement, says Evelynn Hammonds, a science historian who organized the meeting and is the only tenured African-American woman at MIT. There are just four women of color among MIT's 94 tenured women, including one engineering professor.

–ANDREW LAWLER

PALEOANTHROPOLOGY

African Skull Points to One Human Ancestor

Almost 1.8 million years ago, a new kind of human appeared on the scene in Africa and Eurasia. It stood as tall as living humans do and had a relatively large brain, slender hips, and a barrel-shaped rib cage. These early humans used stone tools adeptly, scavenged meat on the open savanna, and colonized more than one continent. But anthropologists have been divided for 2 decades about their identity: Were they members of one peripatetic species, *Homo erectus*, which included later fossils in China and Indonesia? Or did they belong to a different species called *H. ergaster*?

A report in this week's issue of *Nature* offers an answer, based on a million-year-old skull from Ethiopia, that meshes with the judgment of a previous generation. The team of American and Ethiopian researchers has concluded that all of the African and Asian fossils belong together in one species, *H. erectus*. The debate is more than academic quibbling about classification: The skull shares key features with both the early African and somewhat later Asian

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One, at a million. This skull suggests that one human species—not many—lived 1 million years ago.