

An MIT Report on the Status of Women Faculty in Science Leads to New Initiatives to Increase Faculty Diversity

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In March of 1999 an article entitled "*A Study on the Status of Women Faculty in Science at MIT*" appeared in a special edition of the *Faculty Newsletter*. It described how a committee, appointed by the dean of Science, had documented that tenured women faculty in Science had been the object of a subtle form of gender bias. The article, which has come to be known as "the MIT Report", was accompanied by comments from President Vest, from then Dean of Science Robert Birgeneau, and from the Chair of the Faculty Lotte Bailyn. Vest wrote, "*I have always believed that contemporary gender discrimination within universities is part reality and part perception. True, but I now understand that reality is by far the greater part of the balance.*"

The MIT Report, and particularly the administration's acknowledgment of gender bias, was immediately the subject of articles on the front pages of *The Boston Globe* and *The New York Times*. The reaction to these stories was overwhelming. Intense media coverage continued for more than a year. Women faculty who had been involved in the committee's work and the release of the report, particularly myself as chair of the first Committee on Women Faculty in Science, were deluged with e-mail from professional women in the U.S. and other parts of the world reporting that they too had experienced gender bias. I was invited to an event at the White House where President and Mrs. Clinton and Labor Secretary Herman praised MIT's handling of gender bias and praised the courage and the data-gathering approach of the tenured women faculty. The Ford Foundation and an

anonymous donor called to offer their support and to encourage MIT to help bring change to the rest of academia. I received more than 150 requests to speak on university campuses, at annual meetings, at companies, law firms, a music school, and a military base. Several of these requests were for joint appearances with the president, dean, and chair of the faculty, all of whom also received numerous communications. Two short movies were made about the MIT story, one for American and one for Chinese television.

Here I describe two initiatives established this year to address issues raised by the MIT Report. I believe these initiatives have the potential to improve the professional lives of all faculty at MIT, to initiate change that is critical to maintaining the excellence of the Institute, and perhaps even to contribute to bringing about important societal changes.

Lessons Learned About Gender Bias and About the Under-representation of Women in Science

Our analysis of the status of women faculty in Science at MIT, similar analyses by scientists at many other universities, and studies by sociologists that, with hindsight, all but predict the findings of the MIT Report, have led to the following realizations about gender bias and the under-representation of women on science faculties at academic institutions.

1. This problem will not go away by itself with time. Rather, progress will continue to be made only with significant effort by the administration and increased awareness among faculty.
2. The lack of female faculty members in science is not the result of a small number of women being drawn to science or a shortage of women who excel in science.
3. The exclusion of women from positions of academic leadership in science is not simply the result of the small number of women on the science faculties.
4. Greater family responsibilities can not explain the marginalization that women

scientists experience, since many senior women faculty chose not to have children in order to be scientists.

5. Most gender bias is unconscious, and it can be practiced by both men and women.

6. Gender bias can be difficult to identify in the individual case. It becomes apparent in the aggregate, where a pattern of differential treatment can emerge.

These realizations have led President Vest and Provost Brown, in collaboration with women faculty and members of the administration, to establish two new mechanisms to ensure a bias-free work place for women faculty and to address the under-representation of both women and minorities on the faculty, particularly in science and engineering.

New Initiatives to Ensure Equity for Faculty and to Address the Under-representation of Women and Minorities on the Faculty

Since we know now that unconscious bias can lead to inequalities in the distribution of resources and compensations to women vs. men, last year Vest and Brown, in consultation with the Deans, established Committees on the Status of Women Faculty in all five Schools of MIT. Patterned after the highly effective first and second Committees on the Status of Women Faculty in Science, but also uniquely tailored to the culture of each School, the five committees consist of tenured female and male faculty. The committees are conducting interviews with faculty and department heads in their respective schools to identify areas of particular concern to women faculty, and working closely with their respective Deans to collect and review data pertaining to the status of women faculty. Reports from these committees are expected to be completed during this academic year. The chairs of the five school committees meet regularly with Provost Brown and Chair of the Faculty Steve Lerman to discuss the ongoing work. The goal of the Committees is ultimately to establish permanent mechanisms that will ensure equity for all faculty in terms of resources and compensations, committee assignments and leadership roles within their departments and the Institute.

While the School Committees are a critical part of the solution to the problems documented in the MIT Report, and while they are already playing an important role in raising awareness of important issues, as President Vest has noted, "fixing inequities is the easy part of the solution." Like the School of Science Committee before them, these committees are charged primarily with addressing the symptoms of a problem rather than its underlying causes. How does one address the underlying causes of the problem and institutionalize changes that will ultimately remove them? Specifically, how does one prevent the marginalization of women faculty, stop the leaky pipeline for women students, and reverse the processes that seem to almost invariably exclude women from leadership roles, particularly in science and engineering? Also critical will be to study mechanisms to further reduce family-work conflicts for both women and men faculty, but particularly for women, many of whom still shoulder a greater share of family responsibilities and hence do not operate on a level playing field at work.

In considering how to address these complex issues, President Vest and Provost Brown have chosen to establish a Council on Faculty Diversity. The council mechanism, which has been used previously during Vest's administration, brings highly knowledgeable faculty together with administrators who have the capability to devise mechanisms for institutional change.

It was immediately apparent that the Council should address the under-representation of both women faculty, including specifically minority women, and minority faculty. Although there are different issues for the groups, there are also common ones, and moving forward together should provide an infusion of new ideas that could benefit all the efforts. In addition, an important new Task Force was established by Vest this year to address specific issues for minority undergraduates. Together, the two efforts will bring new energy to this critically important area.

The Council on Faculty Diversity will begin to meet within the next few weeks. It will begin by dissecting and then addressing the issues listed above for women faculty, as well as issues for minority faculty. The latter include pipeline, retention, quality of life, the racial climate of the city as it impacts hiring, and others to be determined with additional input from minority faculty. The goal of the Council will be to devise solutions, execute them, and review them regularly to assess effectiveness. As ideas and programs are developed, we will continue to report on them through this newsletter.

Broader Significance of the Council on Faculty Diversity

When Civil Rights and Affirmative Action opened the doors of the academy to women and minorities, many thought that the number of women and minorities on the faculty would soon rise to reflect those of the students being trained. Despite progress, when one looks at the faculty, particularly in the fields of science and engineering, clearly this has not happened. Furthermore, efforts that produced progress in the past, seem to have stalled. In addition, we see brilliant women and minority students leave the academic profession disproportionately.

The MIT Report described two major issues that impact the status of women faculty and the quality of their professional lives, and it is highly likely that these issues contribute to the under-representation of women in science and engineering. The first, to many people's surprise, was gender bias. The second, less surprisingly perhaps, stems from the fact that the jobs women were hired into had been designed in another era for a man with a full-time wife at home. Despite many adjustments to the work place, the playing field is not yet level for most women who wish to have a family and a career. Nor is work-family balance as easy for young men in academics as it used to be, since many of them are part of a two-career family.

Women have known for decades that gender discrimination and inequality in family-work balance probably drive many women out of science and other demanding professions and prevent them from rising to the top. But it took women going through the system for 20-30 years to arrive at positions from which they could begin to re-shape the professions to make them as compatible for women as they have traditionally been for men. I believe the national resonance of the MIT Report among professional women reflects the fact that professional women everywhere have arrived at the same truth, and the realization that it is time for change. I believe the Council on Faculty Diversity is poised to contribute significantly in this area and thus help to complete the unfinished work of civil rights and women's liberation. These are hard problems, because they require changing social systems that have existed for decades. But what better place to tackle hard problems than MIT.

Recently, while discussing the difficult problem of marginalization of women faculty with Provost Brown, I noted that some days I feel this problem is so hard that I question if we can really impact it in my lifetime. The Provost's reply was the one that convinced me to agree to co-chair, with him and Associate Provost Phil Clay, the Council on Faculty Diversity: "*But Nancy,*" he said, looking quite taken aback. "*This is MIT. We're engineers. Engineers solve problems.*" Stay tuned.

