Week Ten Reading Guide: The status of women in science

This week we study the impact of women scientists who spoke out against gender discrimination they experienced at MIT. Led by biologist Nancy Hopkins, all but one of the tenured women faculty in the science departments in 1995 called for investigation and change. In response the Dean of Science formed a committee to investigate, which led to a public report in 1999 that made a big impact not just at MIT, but across higher education and beyond. In 2016, undergraduates Caroline Chen and Kamilla Tekiela co-authored a companion report on the status of undergraduate women at MIT. The issues they identified remain persistent, difficult problems of culture at MIT.

November 20, 2019

MIT Video Productions, Women in Science at MIT, 10min

This brief video was produced by the Graduate Women at MIT and Sloan Women in Management to mark the 15-year anniversary of the 1999 report. What do you find noteworthy about the remarks made by the women faculty and/or their male allies?

Hopkins, N. 2002, "A Study on the Status of Women Faculty in Science at MIT," AIP Conf. Proc. 628, 103–106; http://doi.org/10.1063/1.1505288

This first-person account by Nancy Hopkins was delivered at the first International Conference on Women in Physics in March, 2002, shortly before the publication of reports from the remaining four schools at MIT. Professor Hopkins describes how she changed from being in denial about discrimination to leading the effort to eliminate it at MIT. What were her motivations? What was the impact of her efforts as of 2002? It is now almost 20 years later, not too soon to reflect on the impact for later generations of women, as she mentions at the end of her article. How have things improved for women at MIT since 2002? What problems remain?

MIT Faculty Newsletter Special Editions, March, 1999 and April/May, 2002

The 1999 Women in Science report made the front page of the major newspapers and led to the 2002 publication of similar studies in MIT's four other schools. In general, the experience of discrimination by women in science was found to be replicated in the other schools. What differences among schools were found? (See the articles by Hopkins et al. and by Ruth Perry.) In what ways did the MIT administration put women into leadership positions between 1995 and 2002? What was the "engineers' approach to gender equity"? What findings in the 1999 report, and which of the various commentaries in the 2002 issue, stand out to you?

November 25 and 27, 2019

Hopkins, N. Interviews at Cold Spring Harbor Laboratory (short videos)

Watch the video clips entitled "Becoming a Biologist," "Recognizing Inequalities," "Responding to Inequalities," and "Women in Science: The Future of Gender Equity." Why did Hopkins call Jim Watson a

feminist? What did he say that she profoundly disagreed with? Does Hopkins believe in an objective measure of merit?

Chin, C., and Tekiela, K. 2016, "The Status of Undergraduate Women at MIT." Available online at https://diversity.mit.edu/status-undergrad-women/.

This report was written by two undergraduates in course 6 who recognized that their experience of marginalization was common, yet had not been documented. They obtained funding to do a survey of undergraduates to supplement MIT's periodic climate surveys. The result was an impressive report describing the widespread masculine culture at MIT and its impact on women, demonstrating that numerical parity does not ensure equal treatment. The inclusion of quotes from women undergraduates in focus groups makes this report especially helpful in clarifying how students are marginalized. The report is lengthy; feel free to skim it but be sure to read the Executive Summary and Recommendations. What do you find most interesting? How do the experiences of women undergraduates parallel, and differ from, those of women faculty at MIT?

Seron, C., Silbey, S., Cech, E., and Rubineau, B. 2018, "I am not a Feminist, but...': Hegemony of a Meritocratic Ideology and the Limits of Critique Among Women in Engineering," *Work and Occupations*, 45(2), 131–167; http://doi.org/10.1177/0730888418759774

The reports by and about women faculty and students at MIT point to culture as a major challenge in achieving a full sense of belonging and inclusion. This article, one of a series by the authors based on a study of undergraduates in engineering at four schools (one of which is MIT). Like Nancy Hopkins, who was described in the New York Times as "the reluctant feminist," the women engineering students didn't want to think that they were treated any differently than men. Seron et al. write, "To most of these women, feminism is a voice of complaint, asking for special treatment through affirmative action; they also reject it because it suggests that their talent and experience do not meet standards of objective merit and individual achievement." Is this perception widespread at MIT?

Seron et al. describe the social forces that perpetuate a masculine culture that marginalizes women. Surprisingly, perhaps, two core values of American engineering (and even moreso, science) widely considered "good" are most responsible: meritocracy and individualism. They describe the process professional socialization that suppresses claims of discrimination and reinforces objectivist and gender essentialist notions of engineering (and science). Moreover, this socialization explains why achieving gender parity is inadequate to promote cultural change.

Seron et al. conclude that gender inequity in engineering, as described by the students, incorporates femininity but not feminism, but places meritocracy and individualism above all. According to this ideology, those women and men who leave engineering because of its oppressive nature lack sufficient merit. Is this consistent with your experience or perceptions of engineering and science at MIT?

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