
Research Report

Report on the Initiative for Faculty Race and Diversity. 2010. Massachusetts Institute of Technology.
<http://web.mit.edu/provost/raceinitiative/report.pdf>

This report presents a detailed analysis of the impact of race and ethnicity on hiring, retention, career opportunities and academic experiences of minority faculty at Massachusetts Institute of Technology (MIT). A team of MIT faculty leads the study and both quantitative and qualitative data are derived over a period of two and half years since 2007. Results show that work-life experiences of minority faculty members are different from other faculty members in terms of career-related success. Minority faculty members at MIT do not feel equally valued and respected as compared to their white counterparts.

Publications

- 1) *Title:* Transforming Science and Engineering: Advancing Academic Women
Edited by: Abigail J. Stewart, Janet Elizabeth Malley, and Danielle LaVaque-Manty
Publication year: 2010
Publisher: The University of Michigan Press, Ann Arbor, Michigan
ISBN (paper back): 978-0-472-03432-1
About the publication: Since 2001, the ADVANCE Institutional Transformation program of National Science Foundation is granting huge funds to different institutions to promote work-life experiences of women and minority faculty in STEM disciplines. This book offers a collection of research work conducted by scientists, technologists, engineers, social scientists and academic administrators across the nation. The chapters present variety of innovative ideas to improve institutional experiences of women and minority faculty in STEM disciplines.

- 2) *Title:* Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty
Presented by: Committee on Gender Differences in the Careers of Science, Engineering, and Mathematics Faculty; Committee on Women in Science, Engineering, and Medicine, Committee on National Statistics; National Research Council of The National Academies
Publication year: 2010
Publisher: The National Academies Press, Washington, D.C.
ISBN (hard back): 978-0-309-11463-9
About the publication: This book explains the gender gap in career experience of STEM faculty members across major research-based universities in the nation. Data are collected from departmental and faculty surveys conducted in six STEM fields: Biology, Chemistry, Civil Engineering, Electrical Engineering, Mathematics, and Physics. Findings suggest that socio-economic statuses of women faculty members are much lower than male faculty members. Women do not have similar teaching and research-based opportunities as men. Thus, work-life experiences of women STEM faculty are more challenging than their men colleagues.

Research Papers

- 1) Metcalf, Heather. 2010. "Stuck in the Pipeline: A Critical Review of STEM Workforce Literature." *Interactions: UCLA Journal of Education and Information Studies*. <http://escholarship.org/uc/item/6zf09176>

This paper is based on critique of existing literature on gender and STEM. The author reviews basic tenets about STEM workforce in terms of gender, race, ethnicity, class, and citizenship. In so doing, she presents a brief idea about pipeline model and its limitations in explaining experiences of women and minority people in STEM disciplines. She pays particular attention on the application of pipeline model in contexts of hiring, retention, and research. She also discusses the disadvantages of traditional ways of measuring gender and race and affirms that pipeline model has restricted view regarding experiences of women and minority people within STEM academia.

2) Hunt, Jennifer. 2010. "Why Do Women Leave Science and Engineering?" *VOX: Research-Based Policy Analysis and Commentary from Leading Economists*. <http://www.voxeu.org/index.php?q=node/5080>

Hunt expresses concern about the fact that in US, women are more likely to leave science and engineering disciplines than men. She explains this gender gap in terms of women's dissatisfaction with income and promotional opportunities. Again, unequal income and promotional opportunities result from men's numerical majority within workplaces. Hence, gender-neutral policies should be implemented in those workplaces where men outnumber women. In this paper, Hunt compares STEM disciplines with others regarding the exit rate of women. She uses the 2003 National Surveys of College Students data to show higher percentages of male workers and women's anxiety about lower income and less promotional opportunities as primary determinants for female exit rates from STEM disciplines.

Gender and STEM News

1) **Job Satisfaction and Gender**. July 12, 2010. *Inside Higher Ed News*.

"Numerous studies have pointed to a gap in job satisfaction between men and women in academe, with men generally happier with working conditions. A new study by the Collaborative on Academic Careers in Higher Education confirms those studies, but finds -- among assistant professors at research universities -- that these satisfaction gaps vary by discipline. In many measures of satisfaction with various policies or conditions, the gaps between men and women are not statistically significant in many disciplines, but are significant in others, especially in the social sciences." For details: <http://www.insidehighered.com/news/2010/07/12/coache>

2) **Why do girls steer clear of STEM? Study offers a reason as Normandale hosts camp for 'tween girls**. July 21, 2010. *MinnPost. Com: A Thoughtful Approach to News*

"A Miami University team of researchers found that girls may avoid STEM careers because they are "perceived as less likely than careers in other fields to fulfill communal goals (e.g., working with or helping other people)," according to the abstract in *Psychological Science*, the journal of the Association for Psychological Science." For details: <http://www.minnpost.com/nextdegree/2010/07/21/19870>