Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty (2009)

This Congressionally-mandated study will present new findings about career differences between female and male faculty in science, engineering, and mathematics. Building on previous work, the purpose of the project is to update earlier analyses, identify and assess any gender differences, and recommend methods for further clarifying assumptions about gender and academic careers. Academic hiring, promotion, tenure, and the allocation of institutional resources are being examined, based on the findings from two 2004 to 2005 surveys of faculty and departments at major U.S. research universities in six fields: biology, chemistry, civil engineering, electrical engineering, mathematics and physics. One survey focused on departmental characteristics, tenure and promotion, and hiring practices in almost 500 departments during 2002 to 2004. The other survey gathered information from a stratified, random sample of 1,800 faculty on demographic characteristics, employment experiences, and types of institutional support received, including laboratory space. Only full-time, tenure-eligible or tenured faculty were included; instructors, lecturers, postdocs, adjunct faculty, or research faculty were not surveyed. In addition to survey results, the committee is drawing on scholarly studies and existing data from federal agencies and professional societies.

The resulting report will paint a timely picture of the status of female faculty at top universities, clarifying to what extent male and female faculty have similar opportunities to advance and succeed in academia, and potentially challenging some commonly held views. This report will be of special interest to university administrators and faculty, graduate students, policy makers, professional and academic societies, federal funding agencies, and others concerned with the vitality of the U.S. research base and economy.

It is anticipated that Gender Differences at Critical Transitions in the Careers of Science, Engineering, and Mathematics Faculty will be released in pre-publication form in May 2009. There will be a series of events and activities surrounding the release of the publication, including a workshop convened by the Committee on Women in Science, Engineering, and Medicine on Women in Science, Engineering, and Medicine: Critical Transition Points for Achieving and Sustaining Careers in Industry and Academia.
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For more information concerning this project, contact Catherine Didion at (202) 334-1737 or cdidion@nas.edu. The report is available for preorder from the National Academies Press; (888) 624-7645 or (202) 334-3313, or visit the NAP website at www.nap.edu.

* Denotes membership in the National Academy of Sciences, the National Academy of Engineering, or the Institute of Medicine.