

Sex and the university system

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Editorial

The recent uproar over comments about women in science made by Harvard University President Dr. Lawrence Summers has helped focus much needed attention on an issue of great importance. Whatever motivated Dr. Summers to make statements about the “different availability of aptitude at the high end” as a possible explanation for the lack of gender diversity in science and engineering, we should all thank him for putting the question of why there are not more women in science where it belongs — front and center.

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Unfortunately, the possible explanations for the lack of diversity in the sciences provided by Dr. Summers largely miss the point. The simple explanation for the underrepresentation of women in science is that not enough effort has been made to recruit and support women. While the problem is also partly rooted in deficiencies that begin at the earliest levels of the educational system, I will confine my remarks to the problems at the university level.

The current system for recruitment and career development in the sciences is biased toward the success of white males, hence the lack of women and minorities in the system (1). To suggest otherwise is to turn a blind eye to the gross inequities that are pervasive throughout academia with regard to providing opportunities for women. Women have no difficulty gaining entry into the most competitive doctoral training programs in the sciences: according to 2003 statistics, 37% of science and engineering PhD students (2) and 44.5% of MD graduates (3) are female. Surely, given the abundance of outstanding female graduate students and assistant professors in the sciences, the “availability of aptitude at the high end” is not limiting.

Opportunities for women begin to vanish as they seek to progress beyond the junior faculty positions in the sciences. While an average of 36% of new faculty hires at academic medical schools nationwide were women, women accounted for only 26% of those granted tenure. The percentage of women among those promoted from assistant to associate professor in 2002–2003 was 33%, and among those promoted from associate to full professor, 23% (3). And at the end of the day, only 12% of full professors in the sciences and medicine are women (3). The fact that only 10 of 126 US medical school deans are women (3) illustrates the appalling lack of women

in leadership positions in the sciences and medicine, especially when one considers the number of female basic science department chairs, deans, and other academic leaders.

Perhaps Dr. Summers thinks there could be a gene on the Y chromosome that is activated during the assistant-to-associate professor transition. Otherwise, the argument that there are innate differences underlying the paucity of women in more advanced positions in the sciences and medicine does not hold water. A far more plausible explanation is that older white males are choosing who progresses in the male-dominated sciences. I wonder whether the “different socialization” that Dr. Summers refers to applies to systematic insensitivity training among white males in the sciences who consistently overlook their female colleagues when they are planning scientific conferences, handing out awards for research accomplishments, or conducting searches for department chairs and deans.

Given that there is a simple explanation for the lack of diversity in science and engineering, i.e., the lack of effort to diversify, there should also be a simple solution. After all, as Will Rogers once said, “If stupidity got us into this mess, then why can’t it get us out?” Academic leaders simply need to raise awareness about the lack of diversity and then set about to correct it. Search committees need to be charged with improving diversity in the sciences by giving serious consideration to qualified female candidates. Incentives should be established to reward departments that are successful in improving diversity (e.g., more space and money for additional recruitments). Retention programs that guarantee outstanding postdoctoral trainees a faculty position if they return to the institution where they received their doctoral degrees will also help create opportunities. Most significant, of course, will be assign-

ing more women to serve in leadership positions, where they will not only serve as role models, but will also be able to change policies and enforce guidelines to increase diversity. None of these solutions should be difficult to achieve if the commitment to achieve diversity is real and heartfelt.

Beyond these simple solutions, equally simple changes are needed in order to increase diversity. The system has to become more accepting of diversity in the workforce. Mentoring of junior faculty needs to be taken more seriously with special attention paid to the most critical stages of career development: the transitions from trainee to faculty and from nontenured to tenured status. Guidelines for achieving tenure need to show acknowledgment that the biology of child rearing has evolved in recent decades. It is now common for women in their 30s and 40s to take time off for pregnancy and childbirth. Thus, timelines for promotion to tenure need to be extended so that there is no penalty for raising a family. Day care for preschool children should be provided at universities. Agencies that fund research, including the NIH and the National Science Foundation, should provide flexibility that enables a scientist to temporarily suspend a project for several months without penalty.

I agree with Dr. Summers that the lack of diversity in the sciences needs to be studied. Indeed, once the data are collected and analyzed, those universities succeeding in achieving diversity should be rewarded (e.g., with more federal research support). Moreover, now that Dr. Summers has created an uproar surrounding this issue, we should not let it die down until the representation of qualified women in the sciences is equal to that of men.

1. Marks, A. 2005. Desperately seeking diversity. *J. Clin. Invest.* 115:480. doi:10.1172/JCI200524541.
2. National Science Foundation. Science and Engineering Doctorate Awards: 2003. <http://www.nsf.gov/sbe/srs/nsf05300/htmstart.htm>.
3. Association of American Medical Colleges. Women in U.S. Academic Medicine Statistics 2002–2003. <http://www.aamc.org/members/wim/statistics/stats03/start.htm>.

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