Leveling the Playing Field

THIS MONTH, THE PRESIDENTS OF THE U.S. NATIONAL ACADEMY OF SCIENCES, THE NATIONAL Academy of Engineering, and the Institute of Medicine—together known as the National Academies—reaffirmed their support for the Committee on Women in Science, Engineering, and Medicine (CWSEM). One of the few standing committees to have the support of all three academies, CWSEM’s mandate is to coordinate, monitor, and promote action to increase the participation of women in science, technology, engineering, and mathematics (STEM) disciplines. Given claims that “the leaky pipeline” is a myth, because losses from STEM fields are compensated for by transfers in from other disciplines during the undergraduate years,* is there still a need to advocate for more women in STEM disciplines from a high-level group such as CWSEM?

The answer is a resounding yes. Even if an adequate supply of STEM professionals emerges from undergraduate institutions, data show that women don’t advance professionally at the same rate as men. In academia, many women opt for non–tenure-track, part-time, and adjunct faculty positions to accommodate family demands.† Similar trends exist in industry and government sectors, with women holding a higher proportion of part-time, shared, and lower-tier positions. As a nation, we are squandering highly trained talent and spending too much time and resources on unnecessary searches and recruitments to replace those who don’t advance in their careers or who drop out of the STEM workforce entirely because of work/life issues that affect them disproportionately.

According to a recent study, although women in the United States retire at the same age as men, their retirement income is on average 29% less, because they lose ground in terms of their salary and career advancement with each child they rear. Men, as fathers, experience no such penalty.‡ Such family issues affect all women in academia but are more pronounced for women in the STEM disciplines, where women remain underrepresented in many fields.

Although work/family issues are cited as a factor challenging the advancement of all professional women, the coincidence of childbearing years with the period of time when a faculty member must build a strong research portfolio for tenure puts academic women at a particular disadvantage. Too many women believe that they must choose between motherhood and reaching their highest career potential. Further, data show that women also carry a large share of community service work, serving on evaluation panels, committees, advancement efforts, etc., as all organizations strive for diverse input. This contribution is conducted on top of research and teaching responsibilities and counts for little or nothing toward tenure and other advancement milestones. Some universities and other employers have instituted policies that attempt to mitigate these additional burdens, but the dilemma is that the policies may go against unwritten cultural expectations about what young professionals need to do to be successful in the eyes of their peers. If no male faculty members take time out to care for a newborn while on the tenure clock, it is hard to convince a woman that she will not be perceived as less committed to or serious about her career. Policies can only be effective if they take into account the culture of the organization.

CWSEM is working to level the playing field for all women in STEM disciplines, whether they are found in academia, in government, or in industry. The committee shares data and expertise, raises awareness about promising programs and proven successes, and builds a community committed to stemming the waste of talent and resources when careers are stunted unnecessarily. When hundreds of thousands of dollars are invested in the training of each STEM graduate student, supporting CWSEM to help find better ways for all women in STEM occupations to ultimately reach their true potential is a wise investment.

— Marcia McNutt

10.1126/science.1242309
