



## **SWE General Position Statement on Equal Opportunity and Affirmative Action**

The Society of Women Engineers supports policies and legislation that strengthen the U.S. STEM workforce by ensuring equal opportunity for women in STEM education and careers.

### **Importance of Science, Technology, Engineering, and Math (STEM) to the U.S. Economy**

Scientific and technical innovation form the cornerstone of economic growth in the United States and comprise a fundamental component of our quality of life and our national security, as recognized by the National Academies and the U.S. Congress. (Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future, NAP, 2007; America Competes Act, PL-110-69).

### **Despite Progress, Women Continue to be Underrepresented in STEM**

A strong science and engineering workforce is critical for the nation's well-being, but despite many years of effort by the Society of Women Engineers and others, women remain significantly underrepresented in the STEM fields. While the proportion of women earning degrees in engineering has climbed from less than 1% in the early 1970s to close to 20% today, that percentage has remained constant for the past decade. In 2007, women accounted for nearly half (46.4%) of all workers in the U.S., and constituted 37% of the science and engineering workforce, but only 13.5% of engineers. (BEST, 2004; CPST, 2008)

### **Retention of Women is Still an Issue**

Even as the number of women earning degrees in engineering has increased over the past decades, their participation in the workforce remains small. According to data from SWE's 2005 survey of engineering graduates and the National Science Foundation's SESTAT database, women are more likely than men to leave engineering as their careers progress (Frehill, 2007a). The 2005 SWE survey also reveals that women are less likely than men to believe that female and male employees performing the same job are treated equally (39% of women vs. 71% of men), and more likely than men to be personally aware of instances where women or minorities were overlooked for career opportunities (23% of women vs. 3% of men) (Frehill, 2007b). A recent report from the National Academies concluded that "women are very likely to face discrimination in every field of science and engineering." (Beyond Bias and Barriers, 2007) The report cites research that shows how both men and women evaluate skills, qualifications, and accomplishments differently based on gender. While explicit discrimination may be less prevalent than in the past, even small disadvantages can accumulate over the course of a career to result in very different outcomes for men and women (Valian, 1998).

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## Legal Background

The term “affirmative action” was used for the first time in 1961 in President John F. Kennedy’s Executive Order (E.O.) 10925, which instructed federal contractors to take “affirmative action to ensure that applicants are ...treated ... without regard to their race, creed, color, or national origin.” President Lyndon B. Johnson used the phrase again in 1965 in E.O. 11246, which required all government contractors and subcontractors to take affirmative action to expand job opportunities for minorities, later expanded to include women in 1967.

## Current Status

Federal regulations define affirmative action as “...those actions appropriate to overcome the effects of past or present practices, policies, or other barriers to equal employment opportunity.” (29 CFR 1608.1) Implementation of these regulations with regard to such activities as employment and college admissions has been the subject of numerous court decisions, most recently the Grutter and Gratz cases involving the University of Michigan in 2003. Opponents of affirmative action assert that it creates a system of preferences or quotas, requiring the selection of less qualified individuals over more qualified individuals of another race or gender. These opponents have spearheaded ballot initiatives in several states to ban such preferences in public employment, education and contracting. California (1996), Washington (1998), Michigan (2006) and Nebraska (2008) voters approved such measures. Colorado (2008) voters rejected the proposal, and the proposal failed to make the ballots in several states in 2008. Nevertheless, federal laws such as Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the aforementioned Executive Orders remain in effect and supersede state law on the matter of providing equal opportunity through, where necessary, affirmative action aimed at increasing the representation of women and minorities in employment, education, and contracting.

## Recommendations

To ensure a strong STEM workforce, the Society of Women Engineers supports equal opportunity for women in engineering education and careers and offers the following recommendations:

- Policy makers should enforce existing laws and, when necessary, enact additional legislation outlawing discrimination on the basis of sex in employment, pay, and education to promote equal opportunity in the preparation for and pursuit of STEM careers.
- Employers should scrutinize hiring procedures and career progress of male and female employees in order to identify and mitigate inequities. Personnel policies and procedures should provide all employees the opportunity to achieve their career goals and balance the demands of work and personal life.
- Voters and state legislatures should continue to support programs that ensure equal opportunity for women and men to pursue STEM education and careers, including where necessary affirmative action programs to address existing inequities.

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