

The Advancement of Women in Academic STEM, Two New Articles about the NSF ADVANCE Program

Two new research reports provide different vantage points on the advancement of women in academia. A chapter by Mary Frank Fox of Georgia Tech in *Higher Education: Handbook of Theory and Research (Vol. 23: 73-103)* is titled “Institutional Transformation and the Advancement of Women Faculty: The Case of Academic Science and Engineering.” In this chapter, Mary Frank Fox, uses evidence from 19 first and second “round” ADVANCE: Institutional Transformation (ADVANCE: IT) award institutions to document how women’s advancement in science is shaped by structural forces. The ADVANCE: IT awards were a new National Science Foundation program implemented in 2001 that sought to increase the recruitment, retention and advancement of women in academic science, technology, engineering and mathematics (STEM). Substantial awards (between \$3-\$3.8 million) were made to nine institutions in 2001-2002 and another ten in a second round in 2003. The article that Fox has written provides an overview and analysis of the emphases and range of the transformation strategies undertaken by these 19 institutions and concludes that: “Improvement of women’s status in academic science and engineering relies not merely upon the detection, cultivation, and enhancement of individuals’ backgrounds, talents, and skills. Rather, improvement depends on attention to organizational and environmental factors such as allocation of resources, access to interaction and collaboration in research, and operation of equitable evaluation schemes in the work and workplace.” (p.96).

A second recent article focuses attention on one, specific ADVANCE: IT institution, the University of California at Irvine. Kristen Monroe, Saba Ozyurt, Ted Wrigley, and Amy Alexander report results from in-depth interviews with 80 female faculty members at that institution. Their article, titled “Gender Equality in Academia: Bad News from the Trenches, and Some Possible Solutions” appeared in the June 2008 issue of the journal *Perspectives on Politics (vol. 6 no. 2)*. The article complements the structural work mentioned previously by Fox. Monroe and her colleagues include many excerpts in interviewees’ own words about their struggles in academia. Key themes that emerged from the rich, qualitative interviews included:

- Difficulties with work/life balance, especially in bench sciences.
- The persistence of subtle discrimination.
- Differential assessments and expectations for “service” in faculty positions.
- Overt discrimination and differential or more exacting standards.
- Gender devaluation.
- Complexity of responses to situations.

With a strong focus on political power within the institution, Monroe and her colleagues find that “Where power operates behind the scenes, subtly shaping structures of daily life and political beliefs, the assessments of those subject to its oppressive impact are adaptive and their responses challenge it indirectly. Our speakers, for instance, show a keen understanding of where the Academy stands relative to the necessary sacrifices all its participants must make in terms of family life.” While UCI faculty women suggested many incremental changes that could improve their situation, most advocated more basic change—consistent with Fox’s findings—arguing that: “the concept of professional success needs to be redefined so it allows for alternative models, not simply the traditional, linear male model in which the professional is full time and focused on a career, with few family duties.” (p. 231).

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