INSTITUTIONAL TRANSFORMATION:
ENVIRONMENTS CAN HELP OR HINDER
SUCCESS OF WOMEN IN ACADEMIA

From scrutinizing evaluation policies to opening doors on insider knowledge, the Georgia Institute of Technology is making strides to address subtle inequities that can adversely affect women’s advancement in academia.

“Environments do not necessarily operate uniformly or neutrally,” said Mary Frank Fox, NSF ADVANCE professor of sociology at Georgia Tech and co-director of its Center for the Study of Women, Science & Technology. “The same setting can be experienced differently by individuals or groups and be unevenly helpful in their success – something that is especially consequential in science and engineering.”

On February 13, at the American Association for the Advancement of Science’s annual meeting in Seattle, Fox discussed institutional barriers that impede women’s progress in academia and how Georgia Tech’s ADVANCE initiative is improving the climate for women faculty.

Launched by the National Science Foundation (NSF) in 2001, ADVANCE is geared to increase women’s participation in academic science and engineering careers. Among eighteen universities to win funding, Georgia Tech has received $3.7 million from NSF to develop policies and best practices that advance women faculty, and Fox serves as co-principal investigator on the project.

One hallmark of Georgia Tech’s NSF ADVANCE program is its research-driven approach to institutional transformation, critical to determining how environments shape positive or negative outcomes. “Just as organizations are structured for outcomes, they can be re-structured for greater equity and better use of talent of underrepresented groups,” said Fox.

As part of the NSF ADVANCE initiative, Fox surveyed Georgia Tech faculty during the 2002-03 academic year to document their perceptions and experiences in four areas: research and teaching, work environments, evaluation processes, and family and household scenarios.

A few highlights of Fox’s survey:
• Men (30 percent) are more likely than women (13 percent) to speak to colleagues about their research on a daily basis.
Although a majority of faculty members have colleagues in their home units working on similar research, men report greater “willingness” of colleagues to collaborate with them.

- **Men** are more likely to characterize their home units as “exciting” or “helpful.”

The survey findings show areas in which women and men converge and diverge and areas in which they may experience the same work setting differently,” Fox explained. “This reflects the influence of institutional settings.”

And that can have important consequences.

“Ease of collaboration is particularly important in science and engineering where work revolves around the cooperation of people in groups,” Fox explained. “Research is a social process of communication, interaction and exchange. These factors, in turn, influence productivity and success in science.”

To determine more specifics about how the academic environment can help women, Fox is following up with one-on-one interviews with survey participants. She’s also conducting a faculty survey at eight other academic institutions to see how experiences compare among faculty.

Another key aspect of women’s advancement in academia is equitable evaluations. As part of its NSF ADVANCE program, Georgia Tech has created a committee to study its policies and procedures for tenure and promotion.

The committee, chaired by David McDowell, has also developed a Web-based tool for interactive learning, which contains a variety of case studies and an actual simulation. Aimed at two audiences, this instrument helps candidates prepare their records for evaluation. It also helps members of promotion and tenure committees understand how prejudices can creep into the review process.

For example, guidelines stipulating that promotions are to be based on productivity can be subject to interpretation. “The word ‘productivity’ is open to subjective opinion,” Fox said. “It’s more equitable to specify what one means by productivity. What are the benchmarks that people should strive for?”

Fox is one of four NSF ADVANCE professors at Georgia Tech who are spearheading different activities to support women’s advancement.

Case in point: Discussions and sessions that address what Fox calls “tacit knowledge.” This informal knowledge, such as how to obtain grants, is available through networking, but not immediately known to all individuals in a given environment.

“Certainly, you can learn this by experience, but that knowledge can come with stumbles along the way,” Fox said. “We’re trying to open the pathway by making tacit knowledge more transparent.”

For example, Fox has been hosting seminars on publication productivity—addressing everything from how to submit work to how to pace publication.

“Publication is a central social process of science,” she said. “It’s how information is exchanged and archived, and it’s a chief criterion for tenure and promotion at research universities. If faculty are included in networks to learn about publishing, they can gain important knowledge for success.”

Fox is enthusiastic about NSF ADVANCE’s momentum at Georgia Tech. “Leadership must signal that equity is a priority, and we have that at Georgia Tech,” she said, noting that Provost Jean-Lou Chameau is principal investigator for the school’s ADVANCE program.

“The first year of our ADVANCE program was devoted to collecting data and establishing a foundation upon which to build initiatives that promote the advancement of women faculty,” said Chameau. “In year two, we’ve moved on to identify areas in which we need to clarify and improve policies and practices while designing a model of excellence for our campus community.”

Although targeted to women, the NSF ADVANCE program helps everyone, Fox added: “Research shows that when work conditions improve for underrepresented groups, the majority group also benefits.”

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