



ARC NETWORK

A STEM EQUITY BRAIN TRUST

The Equity in STEM “First Look”

Produced by the ARC Network, the Equity in STEM “First Look” is a quarterly digital publication that disseminates evidence-based systemic initiatives through multimedia elements, including presentations, promising practices, white papers, videos, podcasts and webinars. Each curated issue allows peers from the ARC Network Community to share content at all stages of development, facilitating early adoption and implementation and broadening our impact.



Funded by the National Science Foundation ADVANCE Program, Award HRD-1740860, the ADVANCE Resource and Coordination (ARC) Network seeks to achieve gender equity for faculty in higher education science, technology, engineering, and mathematics (STEM) disciplines. As the STEM equity brain trust, the ARC Network recognizes the achievements made so far while producing new perspectives, methods and interventions with an intersectional, intentional and inclusive lens. The leading advocate for women in STEM the Association for Women in Science (AWIS) serves as the backbone organization of the ARC Network. Learn more about the ARC Network at www.EquityInSTEM.org.

ADVANCE: Promoting Success of Women Faculty Through a Psychologically Healthy Workplace

Texas A&M University

In October of 2010, Texas A&M University received a \$3.9 million ADVANCE-Institutional Transformation (IT) Cooperative Agreement award from the National Science Foundation (NSF) for a 5-year grant proposal entitled “Promoting Success of Women Faculty Through a Psychologically Healthy Workplace.” The grant was extended for two additional years.

In order to improve the recruitment, promotion, and retention of women STEM faculty, Texas A&M ADVANCE activities focused on transforming the institution to make it a more supportive workplace and reduce administrator, staff, and student implicit biases about women and minorities. The specific objectives of the project were designed to foster psychologically healthy workplace (PHW) practices, which research has shown increase faculty job satisfaction and reduce turnover. These practices can be organized under five broad principles: 1) Growth and development, 2) Health and well-being, 3) Involvement, 4) Recognition, and 5) Work-life balance. The ADVANCE activities, which span the five PHW principles, were organized into three broad categories: **climate change activities** that were designed to improve the workplace climate and reduce bias at Texas A&M; **faculty success enhancement activities** that were designed to foster the professional development of women STEM faculty at Texas A&M; and **recruitment and retention activities** that were designed to increase Texas A&M’s success in recruiting and retaining women STEM faculty. The goal of these various activities was to double the representation (percent) of tenured women faculty in STEM disciplines within five years and significantly increase the number of women STEM faculty at all levels.

Change efforts focused on all departments in the Colleges of Science, Engineering, and Geosciences; NSF-supported social sciences departments in the College of Liberal Arts; and select departments in the College of Agriculture and Life Sciences. Consistent with the long-term NSF goals of institutionalization of equity efforts, the remaining departments in the College of Agriculture and Life Sciences “bought in” to ADVANCE activities early in the program, participating in ADVANCE activities from the beginning. The College of Veterinary Medicine “bought in” to ADVANCE in May 2014.

One key feature of Texas A&M’s ADVANCE program, which differs from ADVANCE programs at other institutions, was the decision to involve the university community broadly in the design and implementation of each of the proposed activities. Design and Implementation Committee members, who typically were not involved in drafting the ADVANCE proposal, were engaged in each of the project activities from the beginning. The inclusive way in which ADVANCE was implemented at Texas A&M served as an additional channel through which ADVANCE impacted employee involvement—a key PHW practice—and had a demonstrably positive influence on climate and retention during the early years of the ADVANCE grant at Texas A&M.

Six social science studies were conducted as a part of the ADVANCE grant. These studies varied in design and data from qualitative interviews with 10 STEM female faculty in leadership positions and their colleagues, to large-scale faculty climate surveys and multilevel analyses of student evaluations of teaching. Together these studies revealed trends indicating modest amounts of bias and disadvantage for STEM women faculty, as reflected by their reports of experiences of incivility and perceptions of departmental climate, supporting the need for continued efforts to transform the institution.

After 7 years we have seen positive results in several areas:

- a. Strategies to combat bias are widely and actively applied to hiring processes, and are beginning to have influence on other faculty evaluation processes like tenure and promotion and award nominations and reviews.
- b. Constructive synergy was developed between the programming offered by the ADVANCE Center and accountability structures led by the Vice President and Associate Provost for Diversity. These synergies have supported changes in discourses and practices within departments and colleges, and have also led to concrete gains in the numbers of women faculty, the numbers and visibility of women leaders, and salary equity.
- c. The ADVANCE Center has earned trust from faculty and leaders for its high-quality programming based in sound scholarship and its spirit of faculty leadership and advocacy. The Center's activities offer faculty welcome opportunities to engage on issues meaningful to them and to meet and interact with like-minded colleagues—opportunities that are particularly valued and empowering in the institutional context.
- d. The Center will be well sustained under the Office of the Dean of Faculties with support of the University administration to advance important institutional goals to improve equity, inclusion and climate.