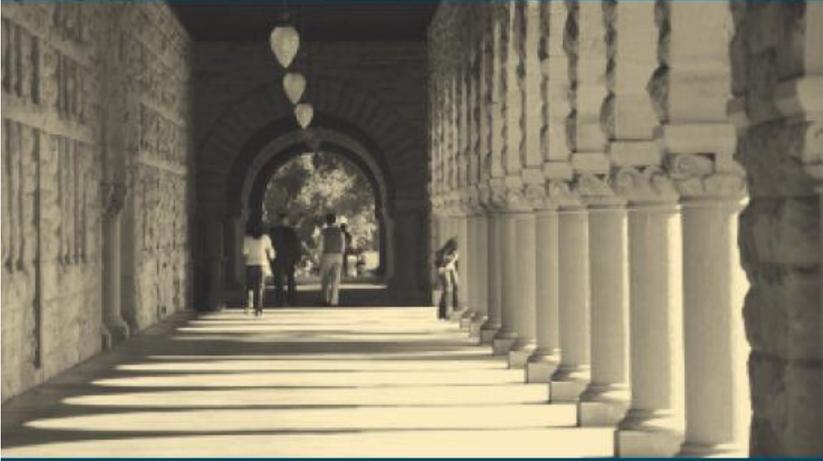


ADVANCE



Lessons Learned from NSF ADVANCE Program

Sonia Ortega, Ph.D.

Head

Europe & Eurasia Office
National Science Foundation

Gender Summit, Brussels - Nov. 8-9, 2016



Mission: To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense.

Equal Opportunity in STEM is critical to the nation's success in science and technology and to economic prosperity.

NSF's Career-Life Balance Initiative is designed to help increase the participation, retention, and advancement of women in STEM.

**NSF's Career-
Life Balance
Initiative**

NSF's Career Life Balance Initiatives

- All NSF grant principal investigators have timing flexibility and access to supplements
- Family-friendly policies in early career programs: Graduate Research Fellowships, CAREER, and post doctoral fellowships.
- Ensure compliance with Title IX of The Civil Rights Act prohibiting gender discrimination
- Increased use of virtual peer review panels to broaden participation of panelists who cannot easily travel

www.nsf.gov/career-life-balance

NSF's ADVANCE Program

Promoting Equal Opportunity for STEM faculty in Institutions of Higher Education

ADVANCE Goals:



To develop systemic approaches to increase the representation and advancement of women in academic STEM careers



To develop innovative and sustainable ways to promote gender equity that involve both men and women in the STEM academic workforce



To contribute to the research knowledge base on gender equity and the intersection of gender and other identities in STEM academic careers

Systemic & Organizational Change

ADVANCE focuses on “fixing” the systems and organizations that determine access to, and success in, STEM academic careers.

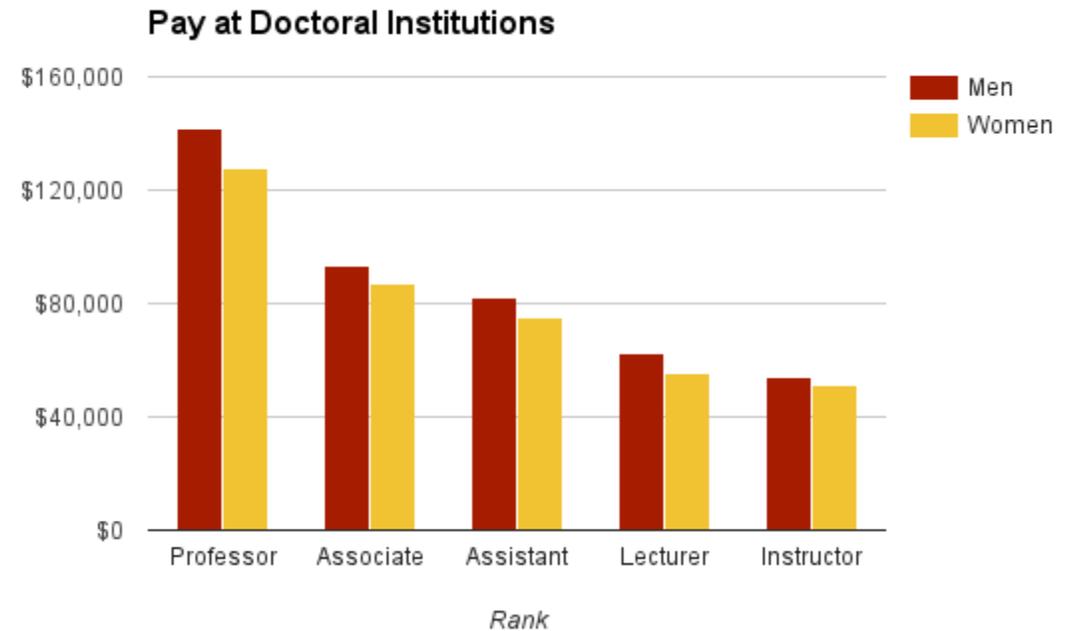
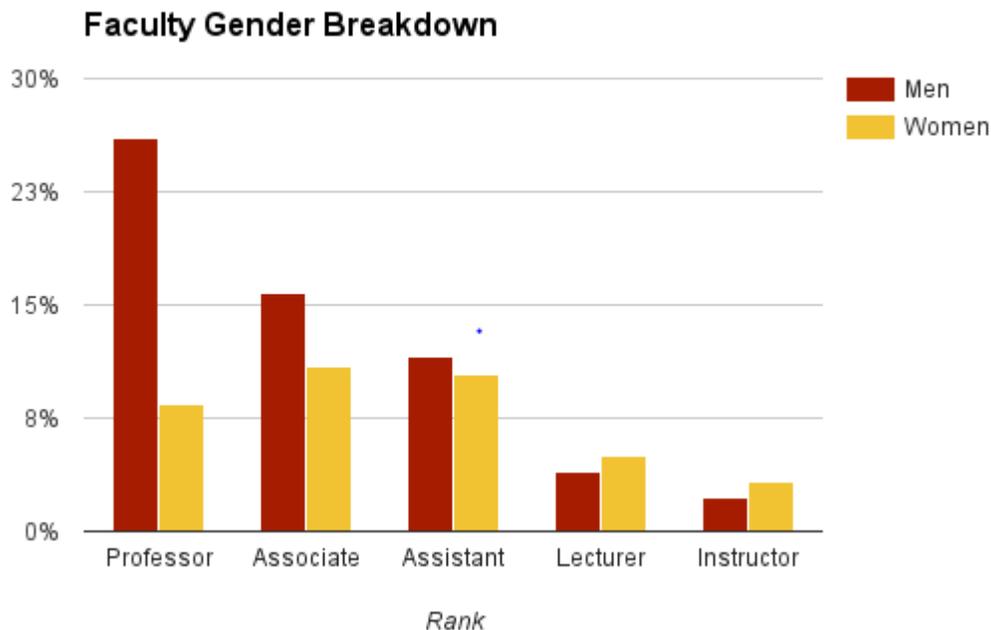
Examples of organizational and systemic issues that impact equity include:

- Recruitment, retention, tenure, and promotion policies *and practices*
- Work-life balance and career flexibility policies and programs *and usage*
- Salaries, start-up packages, and access to resources
- Institutional service allocations and requirements (committees, mentoring, etc.)
- Culture and climate of organization
- Accountability of STEM leadership and commitment to diversity

Systemic and organizational change is most likely to result in **long-term change** in STEM academics.

Equal Opportunity (or Equity)

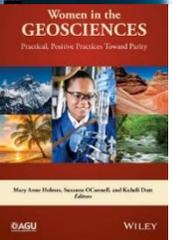
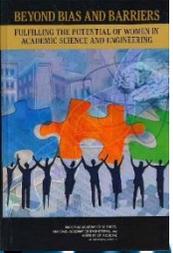
- Equity issues may exist even if proportional representation is achieved.
- Pay gaps are an example of a gender equity issue in academics that may persist even with full participation of women:



AAUP Faculty salary survey data U.S. doctoral institutions 2014-2015

Organizational Strategies that Work at IHEs

- Improvement of Institutional Structures
- Equitable Career Support for Individuals
- Empowerment of Individuals and Leaders
- Work Life Support Policies



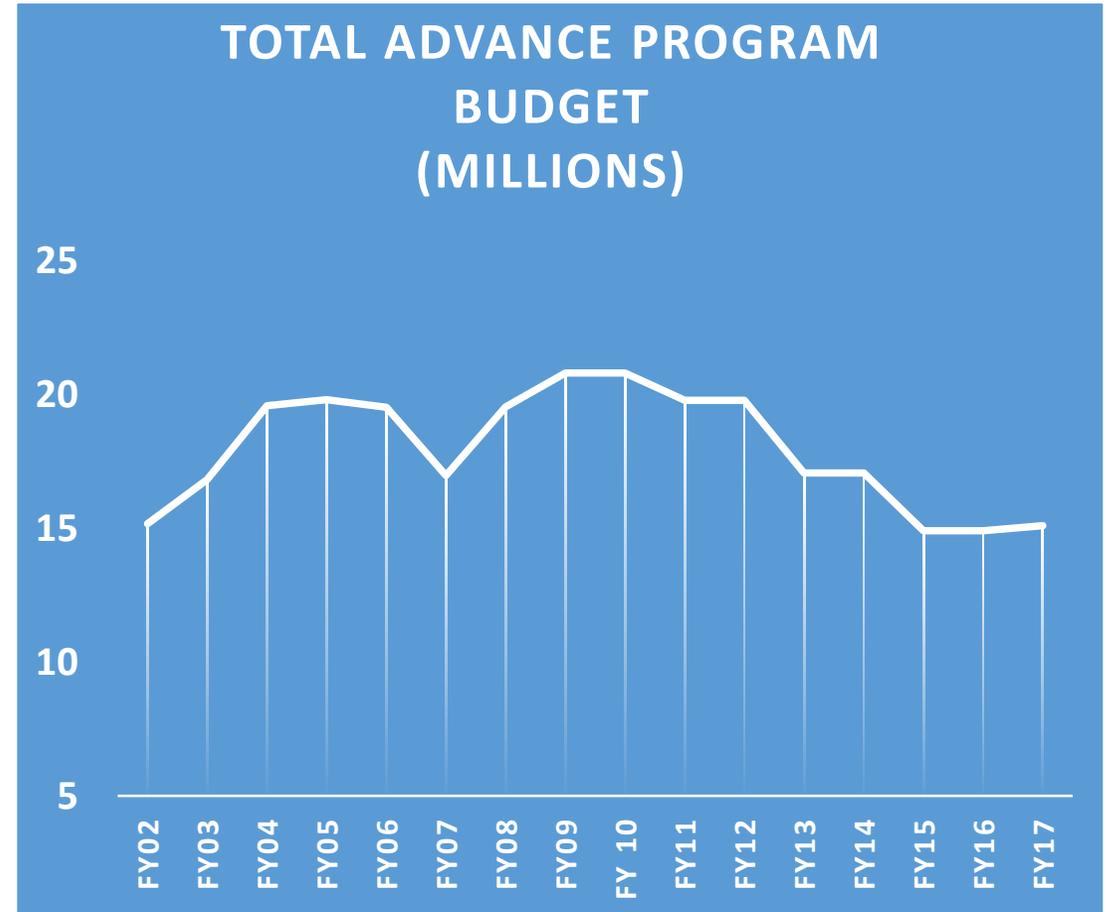
National Science Foundation's ADVANCE Program

65 Institutional Transformation awards

- ~2% of all non-profit IHEs in U.S.
- But 28% of very high research IHEs
- 17% of ITs are to minority-serving institutions

Adaptation and Partnership awards to spread promising practices

- 99 additional non-profit IHEs in U.S.
- 10 STEM professional societies



ADVANCE Institutional Transformation Example

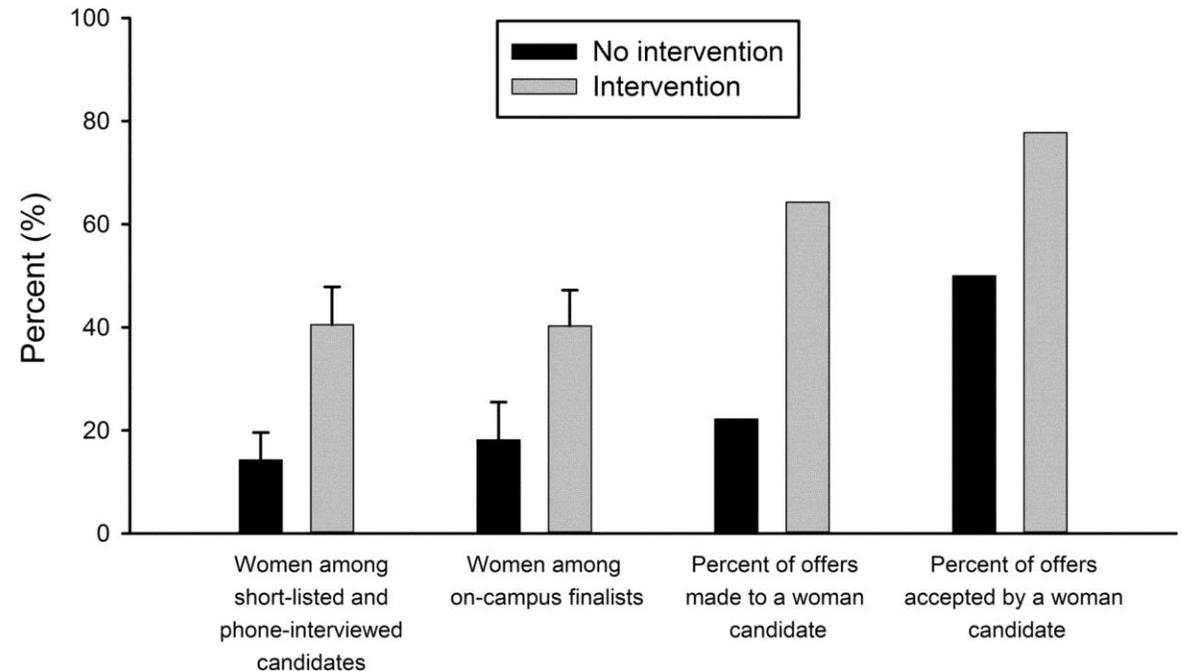
Montana State University

Intervention with search committee chairs
N=23

- 6.3 times more likely to make an offer to women
- Women were 5.8 times more likely to accept an offer if made

The intervention was provided by a faculty peer:

- 1) Tip sheet and search toolkit overview
- 2) 30 min overview of implicit biases
- 3) Discussion of work-life integration and suggestion to have candidates meet with a family advocate for 15 mins

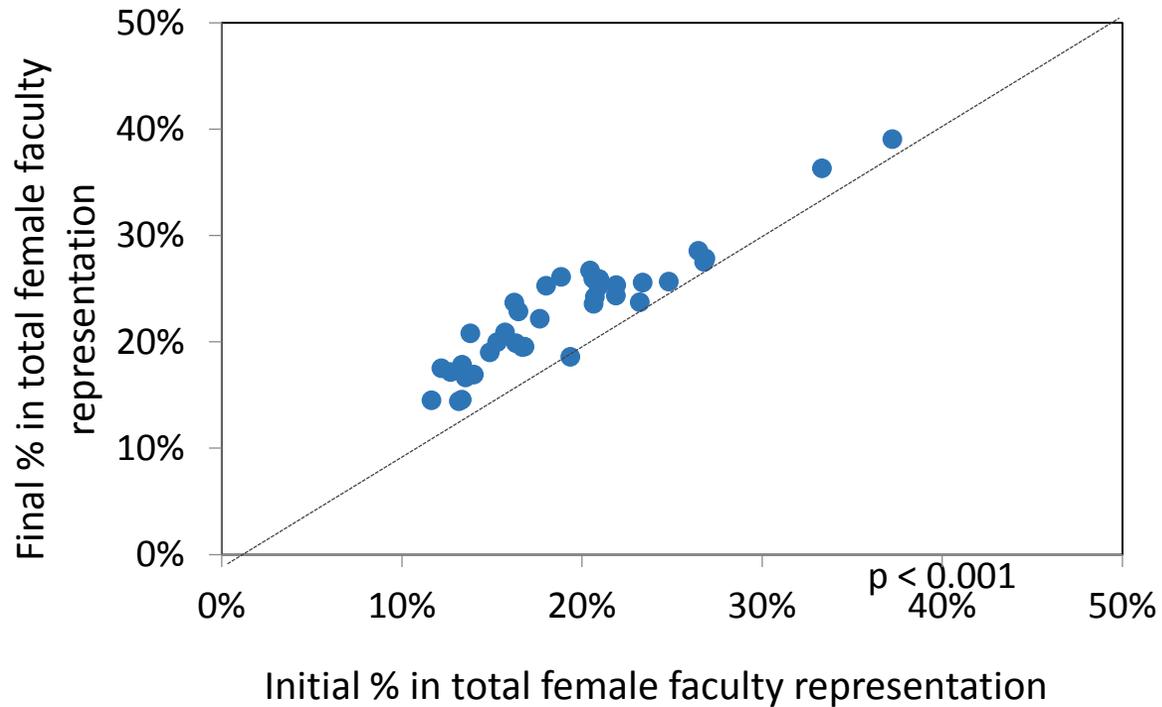


Jessi L. Smith et al. *BioScience* 2015;65:1084-1087



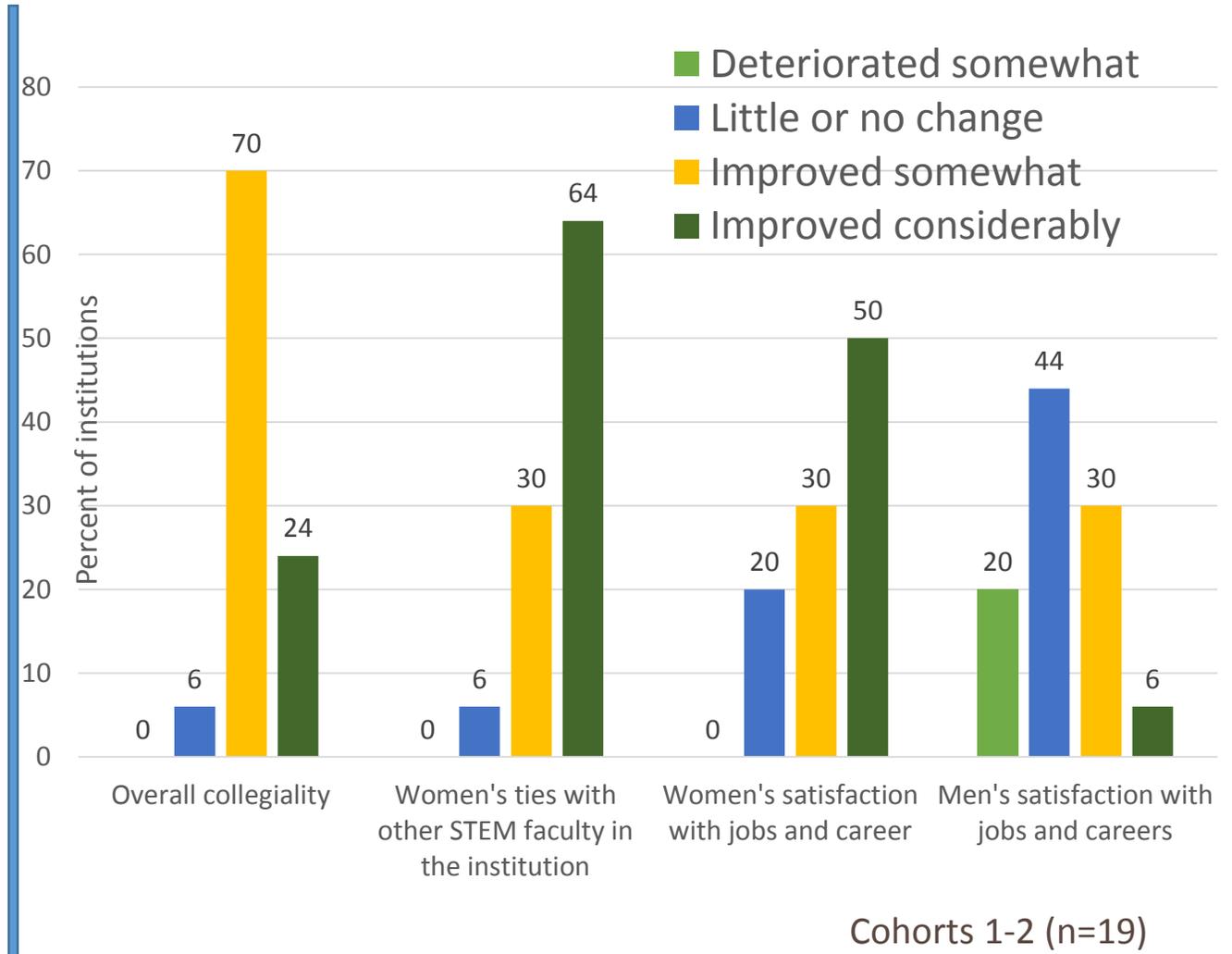
ADVANCE IT Institutions – Indicators of Change

Percent Change in Women STEM Faculty



ADVANCE IT Institutions Cohorts 1-4
(n=41)

Change in Faculty Climate and Culture



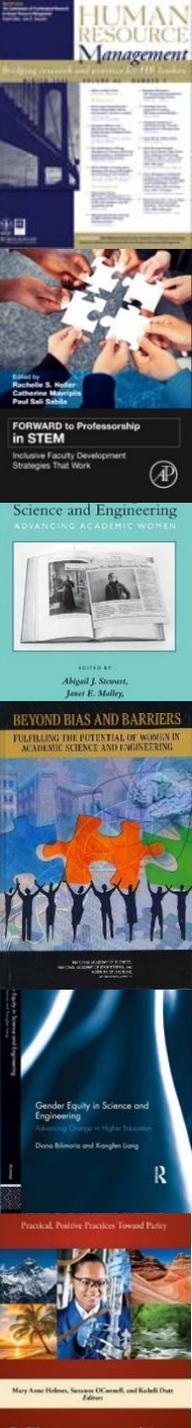
ADVANCE Resources

Individual ADVANCE project websites, for example:

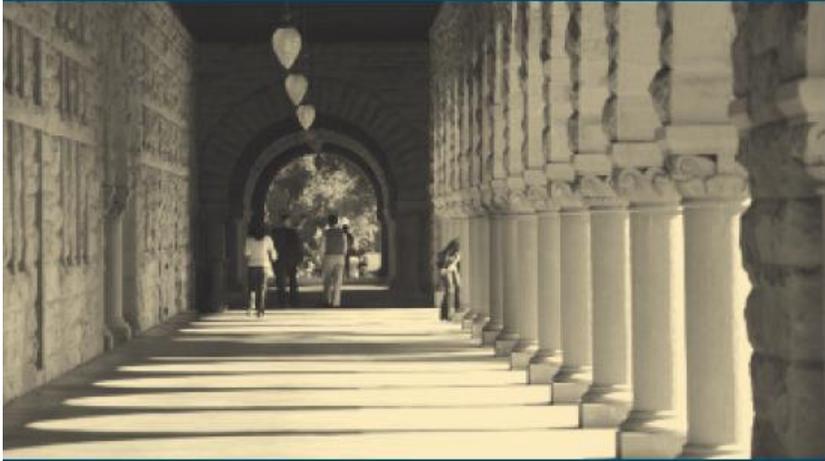
- University of Michigan <http://advance.umich.edu/>
- WISELI <http://wiseli.engr.wisc.edu/>
- Hunter College <http://www.hunter.cuny.edu/genderequity/>

Synthesis or collections of ADVANCE products and strategies:

- Strategies for Affecting Gender Equity and Institutional Change <http://www.colorado.edu/eer/research/strategic.html>
- ADVANCE Portal <http://www.portal.advance.vt.edu/>
- ADVANCE Implementation Mentors (AIM) Network <http://advanceaimnetwork.org/>



ADVANCE



Thank you

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