

ADVANCE

INCREASING THE PARTICIPATION AND ADVANCEMENT OF WOMEN
IN ACADEMIC SCIENCE AND ENGINEERING CAREERS

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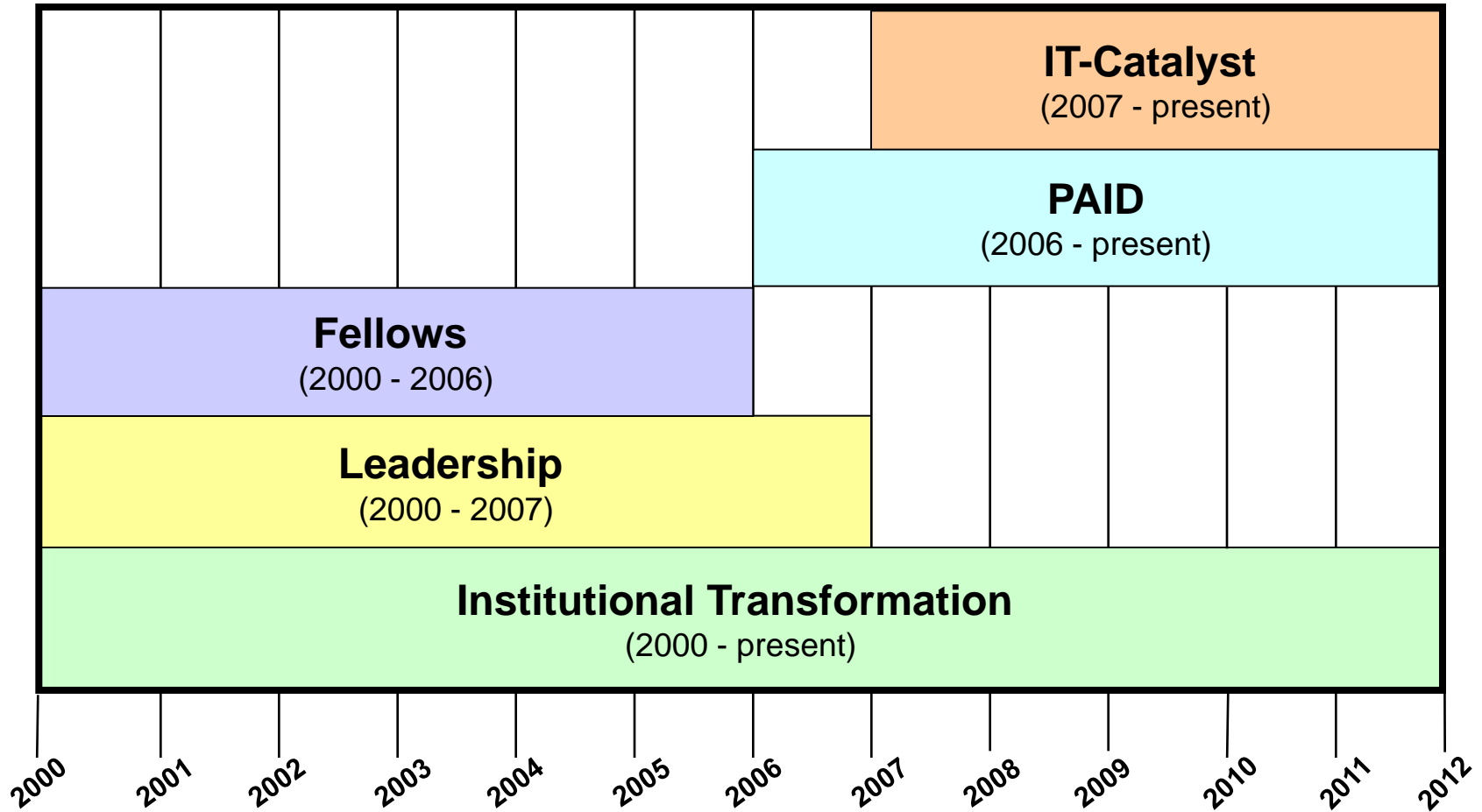
National Organization of Research Development Professionals Meeting
Alexandria, VA

Description of *ADVANCE*

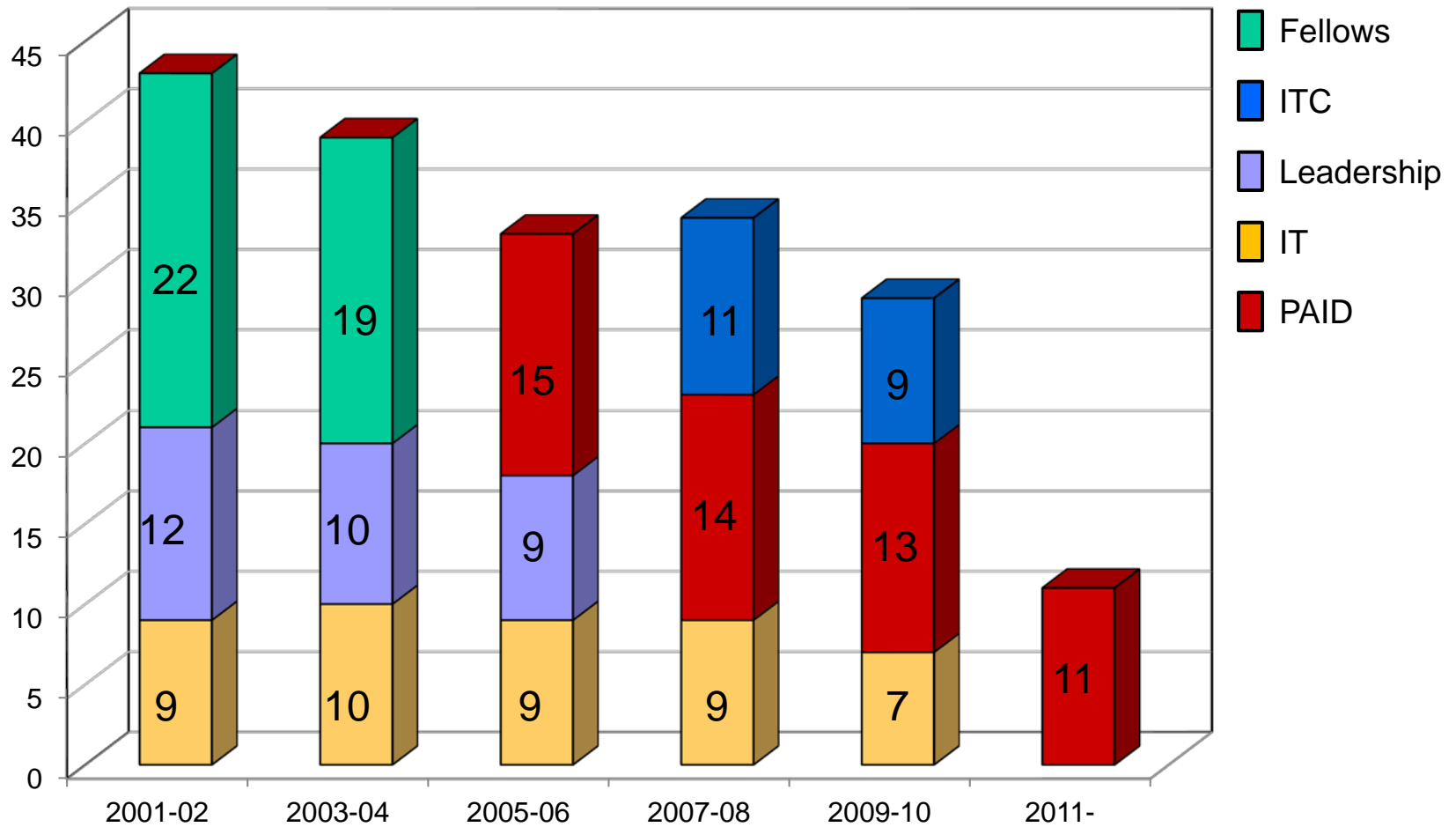
ADVANCE Program

- ❑ **Program Goal:** Increase the representation and advancement of women at all levels in academic science and engineering careers
- ❑ **Program History**
 - ❑ Initiated at the National Science Foundation in 2001
 - ❑ Over \$135M invested to support various ADVANCE projects
 - ❑ >100 ADVANCE projects funded thus far at institutions of higher education and STEM related not-for-profit organizations in 41 states, the District of Columbia and Puerto Rico

ADVANCE Program Evolution



ADVANCE Awards, 2000-2011



ADVANCE Institutional Characteristics

□ Major Characteristics

- Support new approaches to **improving the climate/changing the culture** for women in U.S. academic institutions
- Based on **conceptual framework** grounded in existing **social science literature** regarding organizational change and diversity
- Identification of and demonstrated commitment to:
 - **Institutional leadership**
 - **Policy** review, revision and implementation
 - **Sustainability**
- **Facilitates women's advancement** to the highest ranks of academic leadership



ADVANCE Award Mechanisms

Current Award Mechanisms

□ Institutional Transformation Catalyst (IT-Catalyst)

- Planning grants to support basic work to prepare for transformation

□ Institutional Transformation (IT)

- Comprehensive, **institution-wide**, projects transform the culture of the institution

□ Partnerships in Adaptation, Implementation and Dissemination (PAID)

- Support for **use of existing innovative materials and practices**

IT - Catalyst

PURPOSE

- Planning grants** to support basic work to prepare for transformation at institutions with limited resources

FUNDING

- 2-year project period; **\$200,000** maximum for **2 years**

IT CATALYST PROJECT CHARACTERISTICS/EXAMPLES OF ACTIVITIES

- Data collection on faculty, administrators
- Awareness building
- Policy review
- Pilot activity implementation
- Institutional needs assessment

DEADLINES FOR SUBMISSION (ODD YEARS):

- October** (letter of intent, required)
- November** (full proposal)

IT, Institutional Transformation

PURPOSE

- Comprehensive, **institution-wide**, projects to **transform** the culture of the university or college

FUNDING

- 5-year** projects at average **\$2M to \$4M** funding level

IT PROJECT CHARACTERISTICS/EXAMPLES OF ACTIVITIES

- Policy changes to enhance the potential for demonstrable and sustainable change
- Professional/leadership development for women faculty
- Focus on accountability for diversity initiatives
- Gender bias training for chairs, deans, search committees

DEADLINES FOR 2011 SUBMISSION (ODD YEARS):

- October** (letter of intent, required)
- November** (full proposal)

PAID, Partnerships in Adaptation, Implementation and Dissemination

PURPOSE

- Adaptation** and implementation of materials, tools, research, and practices that **have been demonstrated to be effective**
- Dissemination and diffusion
- Scientific research** designed to advance understanding of gender in the STEM academic workforce

FUNDING

- 1 to 5 year projects**; maximum **\$750K** for up to 5 years

PAID PROJECT CHARACTERISTICS/EXAMPLES OF ACTIVITIES

- Workshops
- Leadership Development Programs
- Investigator Initiated Social Science Research

DEADLINES FOR 2011 SUBMISSION (EVEN YEARS):

- October** (letter of intent, required)
- November** (full proposal)



ADVANCE Best Practices

Best Practices: Cohorts 1-3

	Initiative	# IT Awardees (n=26)
1	Recruitment/search strategies	15
2	Department climate change strategies	10
3	Mini grants/release time/ research support	9
4	Formal mentoring program	9
5	Professional development for faculty	9
6	Family friendly policies	7
7	Leadership training experience	6
8	Showcasing women scientists	6
9	Focus on women of color	5
10	Promoting dialogue w/ retreats, conferences	5
11	Support for department change	4
12	Networks for women scientists	3
13	Transitional support for crisis	3
14	Professional development for administrators	3
15	ADVANCE advocates “on the ground”	2
16	Support/recognition for senior women faculty	2
17	Awareness for equity in compensation/resources	2

ADVANCE Best Practices - *Implicit Bias*

- **Perceptions** about different categories of individuals and actions that are taken based on those perceptions
- University of Michigan STRIDE (Strategies and Tactics for Recruiting to Improve Diversity and Excellence) Committee
 - Provides training on the unconscious bias literature for **senior STEM faculty** who work with **recruitment committees** and promotion and tenure committees is very effective
 - Reduces influences of implicit bias on search committees and promotion and tenure committees
- Outcomes
 - Increase in women hired in science and engineering tenure track positions (14% in 2001 – 34% in 2006)

ADVANCE Best Practices - Department Leadership

- University of Wisconsin at Madison
 - Provides chairs with tools and resources to identify issues and to develop action plans to address issues:
 - Training on:
 - Need for and use of climate survey data
 - Importance of their role in mentoring new faculty
 - Implicit bias (related to letters of recommendation/commendation, annual evaluations, etc.)
- Outcomes
 - Increase in number of female department chairs (2 – 10/3 years)
 - Positive changes in faculty climate surveys (less reports of isolation, better “fit”)

ADVANCE Best Practices – Faculty Development

- Approaches for faculty development grants:
 - Supporting attendance at professional meetings, leadership development conferences
 - Providing funds to visit an external mentor or to bring one to campus
 - Encouraging interdisciplinary collaboration
 - Support for bridge funding: between start up funding and first external award, or between external funding awards

- Approaches for Mentoring:
 - Formal and informal networks
 - Emphasis on research networks
 - Inter and intra-institutional mentoring
 - Career coaching
 - Faculty advocates

ADVANCE Best Practices - Policies/Procedures

- ❑ Review and revision of key institutional policies
 - ❑ Tenure and promotion decision making
 - ❑ Requests for leave or tenure clock stopping
 - ❑ Access to resources or services
 - ❑ Allocation of teaching, service workload
 - ❑ Work-Life Balance
 - ❑ Policies and practices that address dual career household issues
 - ❑ Dual hiring policies and practices
 - ❑ Tenure clock stopping policies and practices
 - ❑ Conversion of part-time positions to tenured or tenure track positions

ADVANCE Best Practices - Women of Color

- ❑ Social support for campuses in remote locations
 - ❑ Collaborations with culturally relevant organizations/institutions
 - ❑ Access to/appreciation for opportunities for civic engagement

- ❑ Mentoring

- ❑ Awareness programs focused on issues directly related to women of color

- ❑ Targeted seminar series featuring women of color scientists

- ❑ Work-life balance programs



ADVANCE Effective Proposal Writing

ADVANCE Pre-Proposal Writing

- ❑ Current and prior ADVANCE awardee institutions
 - ❑ As mentor institution
 - ❑ Grantwriting assistance

- ❑ Review ADVANCE web portal
 - ❑ Best practices
 - ❑ Gaps in knowledge and information
 - ❑ Literature review
 - ❑ www.portal.advance.vt.edu

- ❑ Assess institutional readiness
 - ❑ Ongoing/prior task force on gender equity
 - ❑ Climate survey/ focus group data analysis

	PAID	IT	ITC
<ul style="list-style-type: none"> ❑ Current and prior ADVANCE awardee institutions <ul style="list-style-type: none"> ❑ As mentor institution ❑ Grantwriting assistance 	X		X
<ul style="list-style-type: none"> ❑ Review ADVANCE web portal <ul style="list-style-type: none"> ❑ Best practices ❑ Gaps in knowledge and information ❑ Literature review ❑ www.portal.advance.vt.edu 	X	X	X
<ul style="list-style-type: none"> ❑ Assess institutional readiness <ul style="list-style-type: none"> ❑ Ongoing/prior task force on gender equity ❑ Climate survey/ focus group data analysis 		X	

ADVANCE Proposal Writing

	PAID	IT	ITC
<input type="checkbox"/> Letters of support	X	X	X
<input type="checkbox"/> Avoid deficit model	X	X	X
<input type="checkbox"/> Special populations (non TT faculty, women of color, women w/disabilities)	X	X	X
<input type="checkbox"/> Partnership development	X		
<input type="checkbox"/> Redirect focus away from student centerdness	X	X	X

ADVANCE

Program Directors:

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ADVANCE NSF Website

www.nsf.gov/advance

ADVANCE Web Portal

www.portal.advance.vt.edu