

NSF ADVANCE Project 2009-2012



Developing Diverse Departments at NC State



National Science Foundation
WHERE DISCOVERIES BEGIN

advance
NC STATE UNIVERSITY

OVERVIEW

- National ADVANCE SNAPSHOT
- NCSU Faculty Diversity
- NCSU ADVANCE Program
 - NCSU ADVANCE Scholars
 - Leadership Development Workshops
 - Climate Workshops for Department Heads
- NCSU Faculty Diversity Progress Assessment

NATIONAL ADVANCE SNAPSHOT: Background & Structure

The goal of the National Science Foundation's (NSF) ADVANCE program is to increase the representation and advancement of women in academic science and engineering careers, thereby developing a more diverse science and engineering workforce.

NATIONAL ADVANCE SNAPSHOT:

Background & Structure

- ADVANCE has supported more than 100 projects from institutions of higher education and not-for-profit organizations during the past 10 years
 - 41 states + DC and Puerto Rico
 - Invested over \$135M
- ADVANCE Portal
 - ADVANCE activities and initiatives nation-wide
 - <http://www.portal.advance.vt.edu/>
 - Grantees Map
 - <http://www.portal.advance.vt.edu/index.php/awards/map>



NCSU FACULTY and STUDENT DIVERSITY

Fall 2010 NCSU Student Population

8% African-American

5% Asian

3% Hispanic/Latino

2% International

.5% Native American

76% White

44% female, 55% male

2009 Doctorate Recipients by Gender and Field of Study

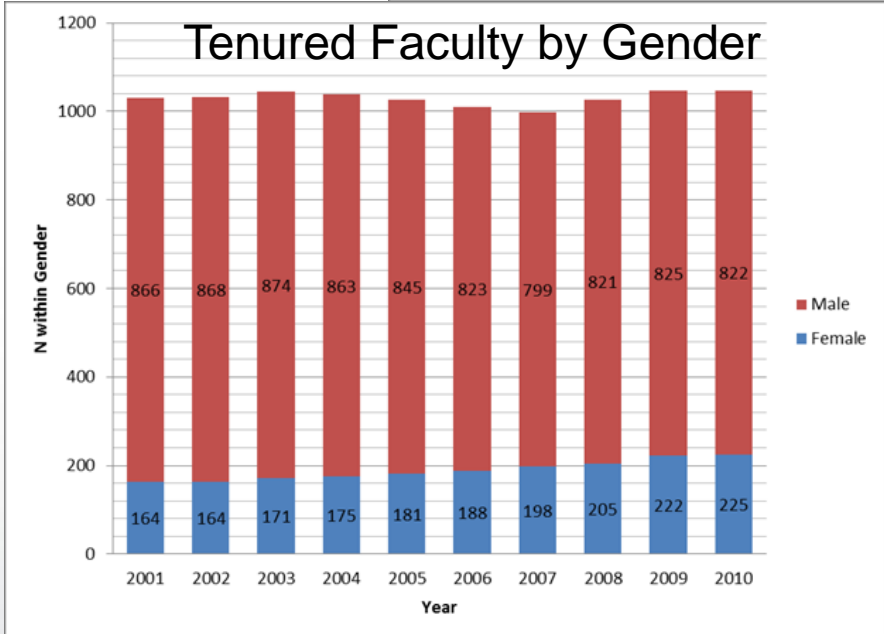
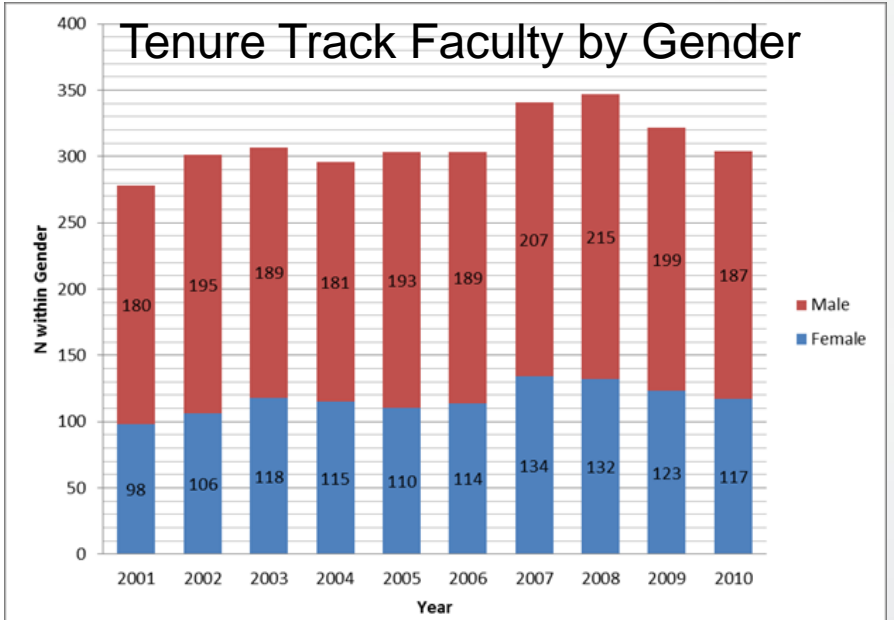
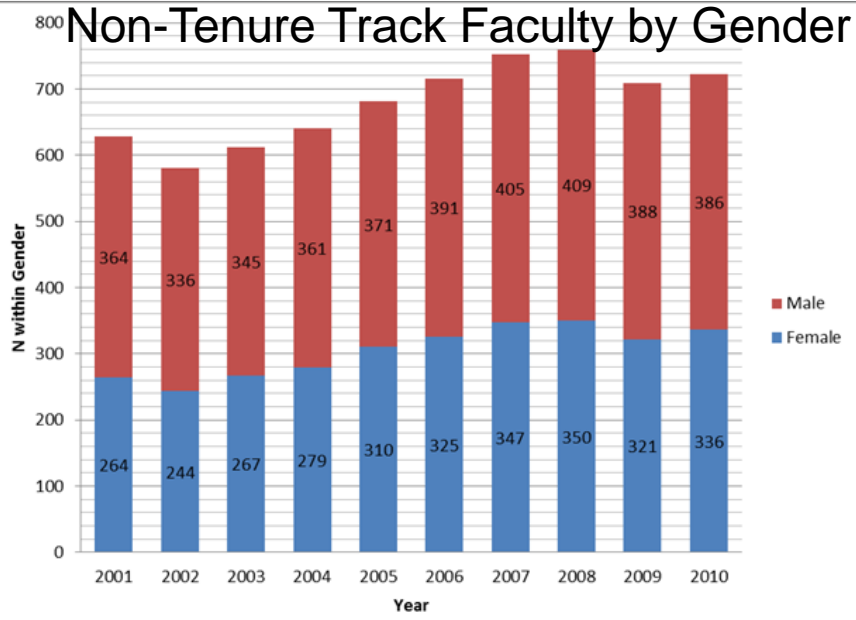
Field of Study	Male	Female	% Female
Life Sciences	5,180	6,212	54.5
Biological/biomedical	3,833	4,187	52.2
Chemistry	1,498	894	37.3
Mathematics	1,068	483	31.1
Physics	1,326	300	18.4
Engineering	6,006	1,623	21.3
Education	2,160	4,370	66.9

* Source 2009 NSF/NIH/USED/USDA Survey of Earned Doctorates

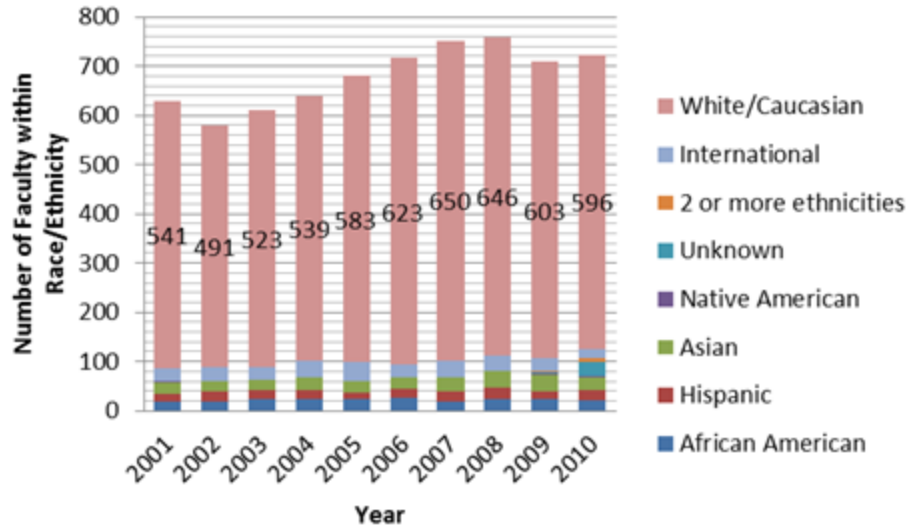
2009 Doctorate Recipients by Race/Ethnicity and Field of Study

Field of Study	Total Doctorates	Native American	Black	Latino
Life Sciences	7,783	31 (.4%)	420 (5%)	389 (5%)
Biological/biomedical	5,513	19 (.3%)	243 (4%)	304 (6%)
Chemistry	1,390	4 (.3%)	62 (4%)	77 (6%)
Mathematics	772	3 (.4%)	25 (3%)	36 (5%)
Physics	788	0	12 (2%)	24 (3%)
Engineering	3,148	12 (.4%)	134 (4%)	158 (5%)
Education	5,566	46 (.8%)	809 (15%)	385 (7%)

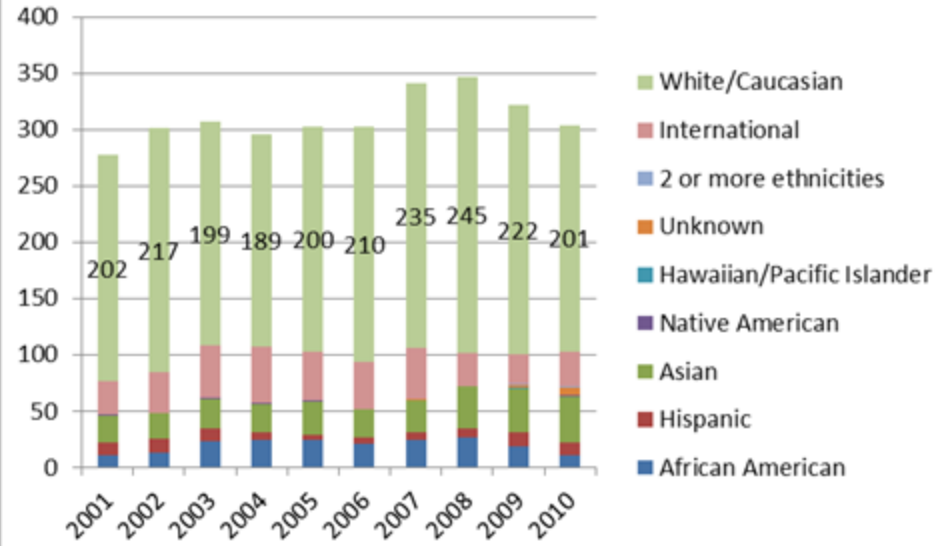
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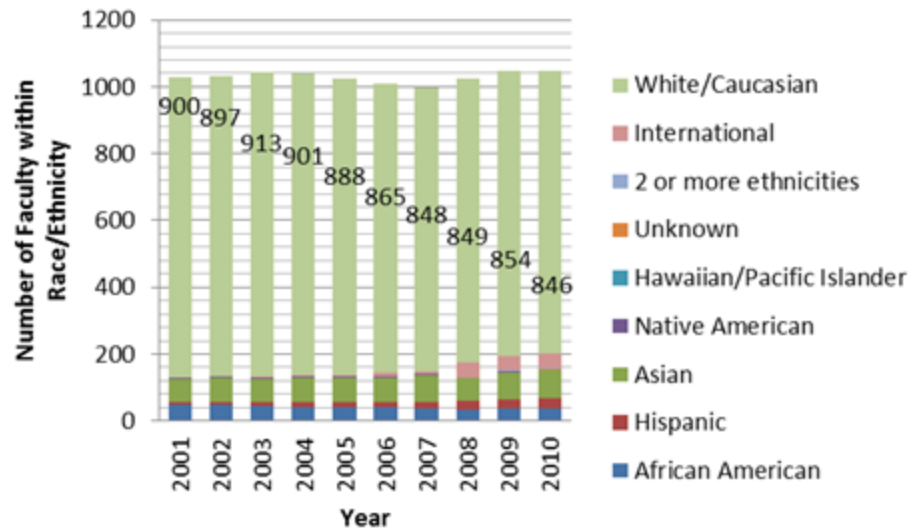
Non-Tenure Track Faculty by Race/Ethnicity



Tenure Track Faculty by Race/Ethnicity



Tenured Faculty by Race/Ethnicity





NCSU ADVANCE PROGRAM

NCSU ADVANCE: Senior Personnel

Principal Investigators

- Marcia Gumpertz, Asst Vice Provost Faculty/Staff Diversity
- Margaret Daub, Dept Head of Plant Biology
- Laura Severin, Professor of English
- Daniel Solomon, Dean of PAMS
- Mary Wyer, Associate Professor of Psychology

Additional Workshop Leaders and Evaluators

- Betsy Brown: Co-leader of both workshop series
- Rebecca Brent: Project evaluation and heads workshops
- Ming Trammel: Project Coordinator

NCSU ADVANCE: Program Goals

- Increase:
 - Female share of senior faculty
 - Visibility of women faculty
 - Number of faculty of color at all ranks
 - Number of women in line leadership
- Cultivate leaders (♀+♂) as change agents
- Change attitudes about hiring diverse faculty



NCSU ADVANCE SCHOLARS

ADVANCE SCHOLARS: Agents of Change

- Senior Leaders & Emerging Leaders
 - Chosen carefully as agents of change
 - Study leadership & social bias
 - Seed discussions in workshops/retreats
 - Promote discussions with faculty colleagues
 - Serve as resource for college/dept faculty diversity efforts
 - Develop initiatives sparked by discussions

ADVANCE SCHOLARS: Example of Outcomes

- *PAMS*: Parental leave for graduate students
- *Engineering*: Lunch and learn on leadership
- *Campus-wide*: Hispanic/Latino Faculty Group; Faculty Liaisons to OIED
- *Campus-wide*: Presentation to departments on recruiting and retention – to begin this Fall
- *Textiles*: Junior faculty community building



LEADERSHIP DEVELOPMENT WORKSHOPS

LEADERSHIP DEVELOPMENT: Workshop Series

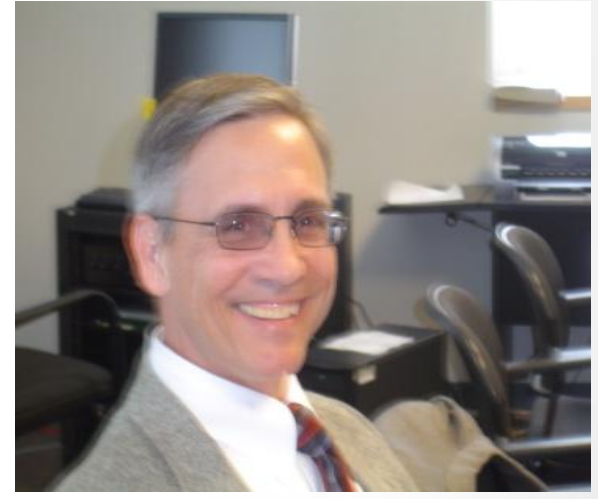
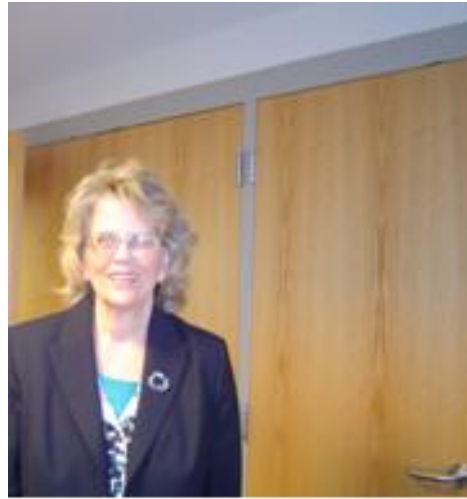
- Goals:
 - Motivate women and faculty of color to consider line leadership roles
 - Provide some tools
 - Build community
- Structure: 7 sessions
 - 3 panels: university leaders; deans; department heads
 - 4 reading/discussion sessions
- Participants
 - Call for applicants sent out to department heads
 - Must be tenured Associate Professors
 - Applicants submit a letter of interest and a CV
 - Participants chosen by the Senior Personnel Team

LEADERSHIP WORKSHOP: Outcomes

- Interest persisted at workshop's end
- Some participants advanced to administration
- Participants developed strong allegiance to the project
- Participation continued

Faculty Senators – D3 Participants

- Montse Fuentes (ADVANCE Scholar)
- Leda Lunardi (Leadership Workshop)
- Margery Overton (Leadership Workshop)
- Paola Sztajn (ADVANCE Scholar)



CLIMATE WORKSHOPS FOR DEPARTMENT HEADS

CLIMATE WORKSHOP SERIES:

Department Heads

- Goal:
 - Cultivate a supportive and inclusive department climate for diverse faculty
 - Identify tangible actions to address issues
 - Development of strategies to create or extend an inclusive departmental climate
 - Build community among department heads
- Why focus on department climate?
 - Satisfaction and desire to stay at NC State strongly related to department satisfaction
 - Negative aspects of dept. climate affect faculty outside the mainstream more strongly than others

CLIMATE WORKSHOP SERIES: Projects

EXAMPLE INITIATIVES

- Committees for on-going discussion and recommendations for department vision and future directions
- Space/funds for break room to facilitate informal interactions
- Appointed group to plan family-friendly social events
- Facebook page and departmental newsletter for better communication
- Appointment of staff to some departmental committees
- Regular discussions about diversity and climate issues



NCSU FACULTY DIVERSITY: PROGRESS ASSESSMENT

ARE WE ON TRACK?

Female Faculty

	2006	2009	2010	2011 projected	2011 possible
TT Asst Professors	38%	39%	40%		
Tenured Faculty	19%	21%	21%	22%	26%
Tenured Full Professors	14%	16%	15%		
Department Heads	18%	25% (15)	22% (14)		
Associate Deans	24%	30% (8)	30% (8)		
Deans	25%	0	8% (1)		

ARE WE ON TRACK?

African American, Native American, Hispanic Faculty

	2006	2009	2010	2011 projected	2011 possible
TT Asst Professors	8% (25)	9% (28)	8% (22)		
Tenured Faculty	6% (61)	6% (67)	6% (67)	7%	12%
T Full Professors	4% (23)	3% (22)	4% (24)		
Department Heads	3% (2)	5% (3)	5% (3)		
Associate Deans	7% (2)	11% (3)	11% (3)		
Deans	17% (2)	17% (2)	8% (1)		

Actions that Would Make the Projections Labeled as “Possible” Become Reality (assumptions underlying the projections)

- Colleges with less than 30% ANH or female faculty: Each department hires 1 tenured ANH and one tenured female faculty member between 2006 and 2011
- Each college retains and promotes one additional ANH assistant professor and one woman compared to past pattern.

How Can I Get Involved in the ADVANCE Project?

- Invite an ADVANCE Scholar to lead a discussion of faculty diversity with faculty in your department
- Encourage your department head to participate in the Climate Workshop series if they have not already done so
- Get involved in climate and retention efforts in your department
- Work to recruit one faculty of color and one female faculty member to your department