

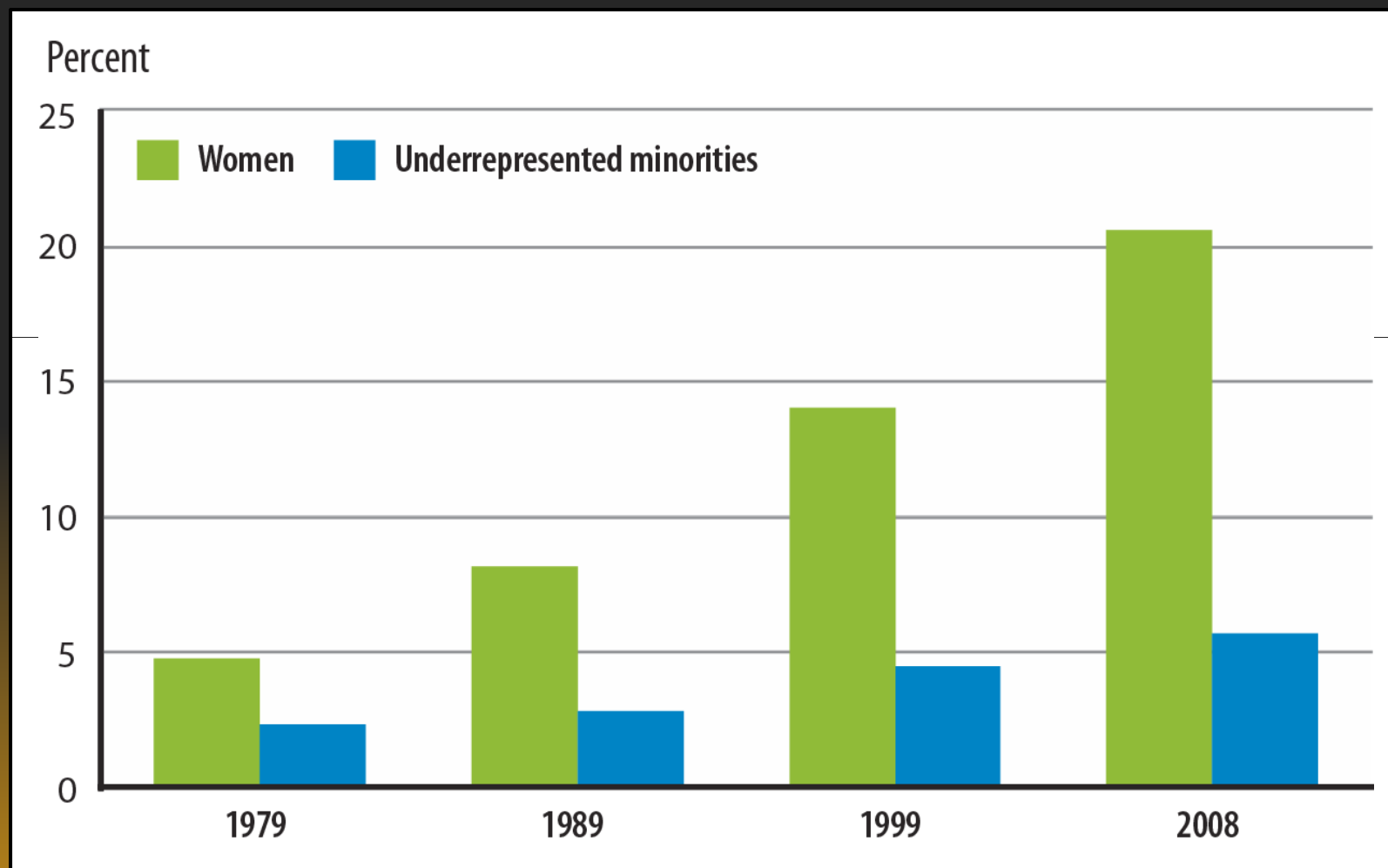


Transforming Virginia Tech: Lessons Learned from *AdvanceVT*

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Women and underrepresented minorities as a percentage of full-time, full professors with science and engineering doctorates: 1979–2008



Background: NSF ADVANCE

- ADVANCE program established in 2000
- “The goal of the ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science, technology, engineering and mathematics (STEM) careers, thereby contributing to the development of a more diverse science and engineering workforce.”
- Institutional Transformation grants focus on the *institution*, not the women

Overview: *AdvanceVT*

- 5-year \$3.5M NSF grant received in 2003
- Key leaders but also *many* faculty and collaborators across university involved
- Comprehensive approach:
 - Increasing the number of women in the pipeline
 - Recruitment and retention of women
 - Leadership development
 - Work-life policies
 - Departmental climate
 - Research and assessment

Desired Outcomes

- Change in awareness, attitudes, and behaviors of key administrators and faculty
- Increase in the % of women academic and technical leaders & senior scholars
- Increase in % women faculty in S&E
- Increase in % women choosing faculty careers in S&E

Changing awareness and attitudes

- Faculty surveys to identify & prioritize issues
- *Advancing Diversity Conference (annual)*
- *New department head orientation*
- Negotiation & conflict resolution workshops
- Department Climate Compendium
 - Available at www.advance.vt.edu



Work-life Policies

- Dual Career Assistance
 - Office established fall 2005
- Stop-the-Clock (Pre-Tenure Extensions)
 - Existing policy revised 2006
 - 1 year automatic extension for new parents
 - Language adopted for external letters
- Modified Duties
 - Adopted 2006
 - Provost provides central funding for one semester of reassignment
- Part-time Tenure Track
 - Adopted 2007
- Expansion of Child Care



Leadership Development

- Leadership fellowships (6 awarded)
- Leadership development program (18 participants)
- Research seed grants (22 awarded)
- *Faculty leadership lunches (2-3/semester)*
- *Distinguished lectures (1-2/year)*



Increasing women faculty

- Brochure on Unrecognized Bias
- *College liaisons*
- *Visiting scholars program*
 - 24 visitors funded
 - 4 hired
- Mentoring workshops
 - 156 participants
- *Promotion to Professor workshops*
 - 85 participants



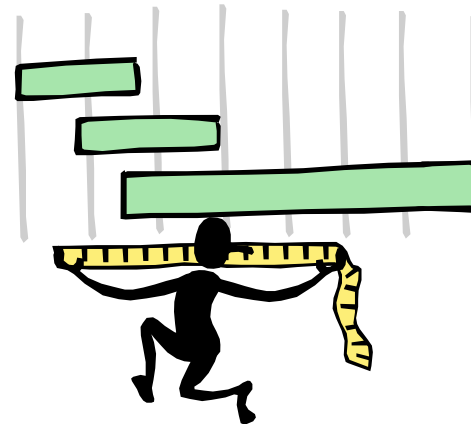
Increasing the number of women choosing faculty careers in S&E

- PhD and Postdoctoral Fellowships
 - (19 awarded)
- Transforming the Professoriate Workshop
 - (2006, 65 attendees)
- *Graduate student seminars*
 - (2-3/semester)

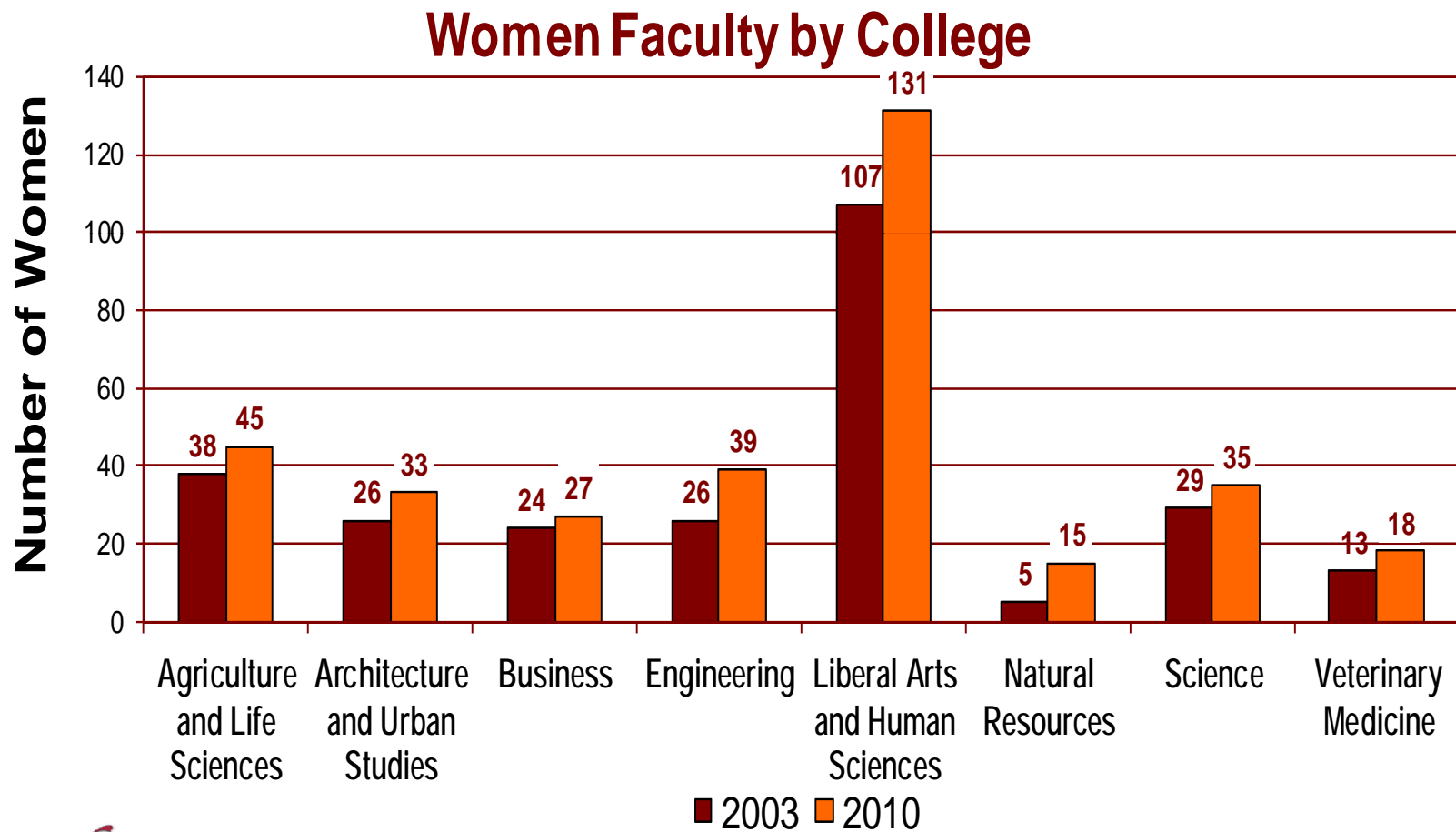


Measuring Impact

- NSF ADVANCE Indicators
- Activity evaluations
- 2005 and 2008 Faculty Climate Surveys
- Work-life policy utilization tracking
- Follow-up studies of fellowship and grant recipients
- Interviews
- Focus groups

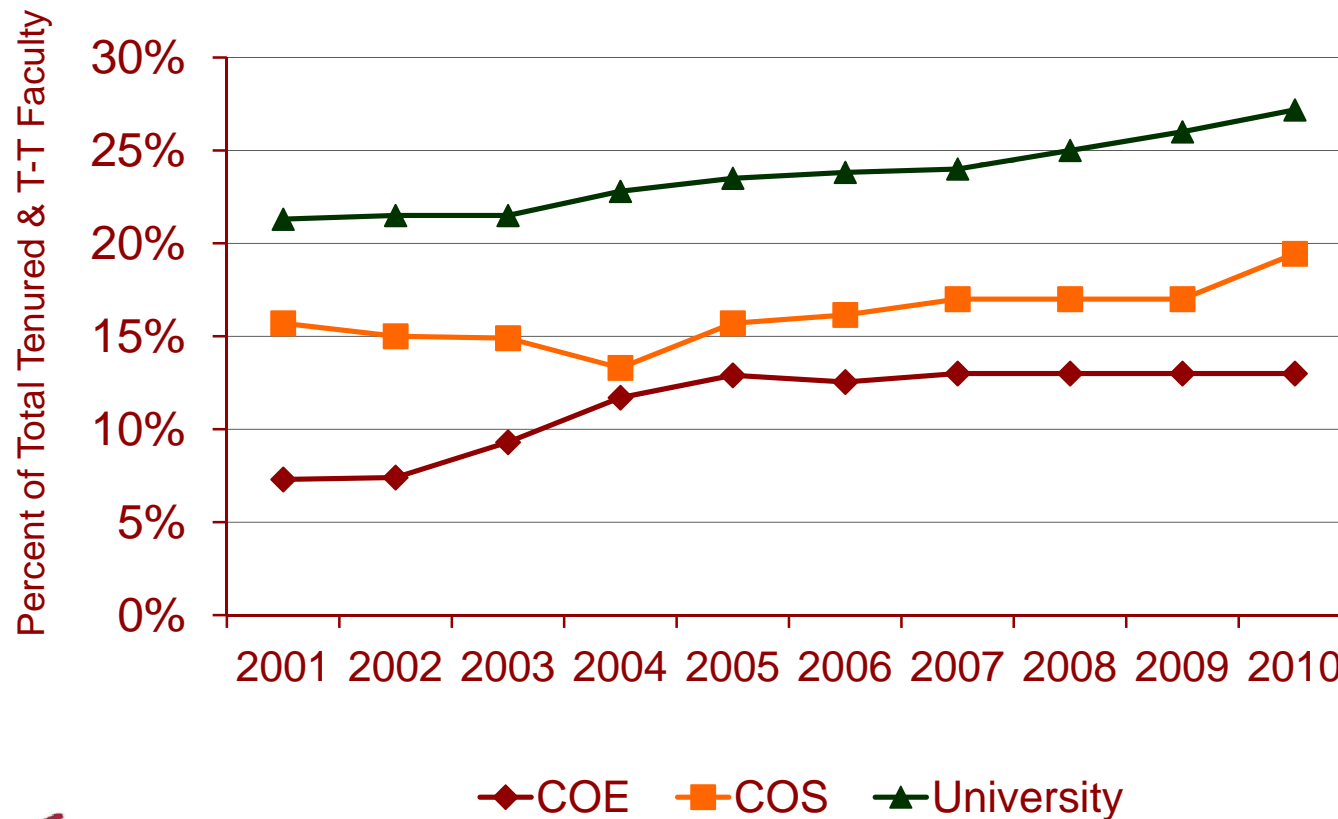


What we measured:



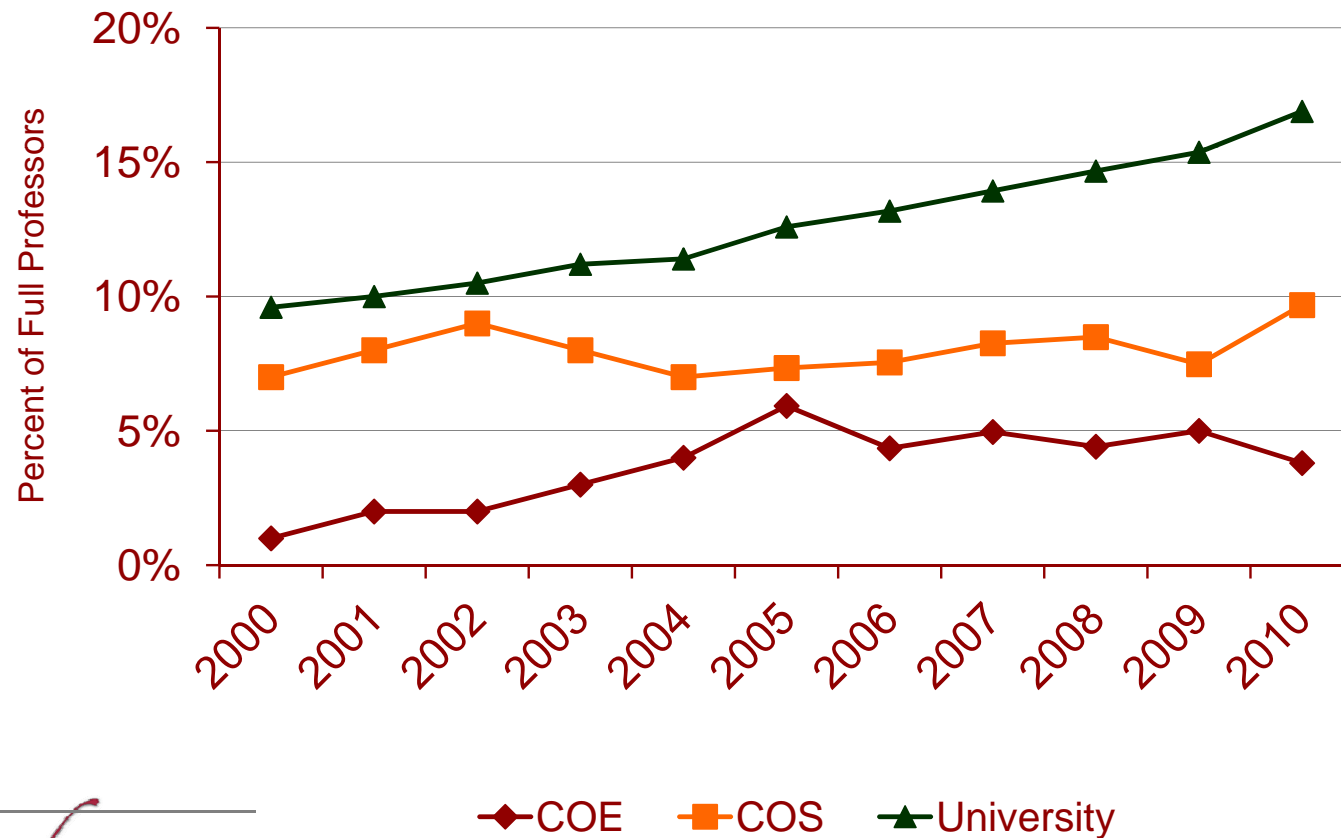
What we measured:

Women as % of Full-Time Faculty



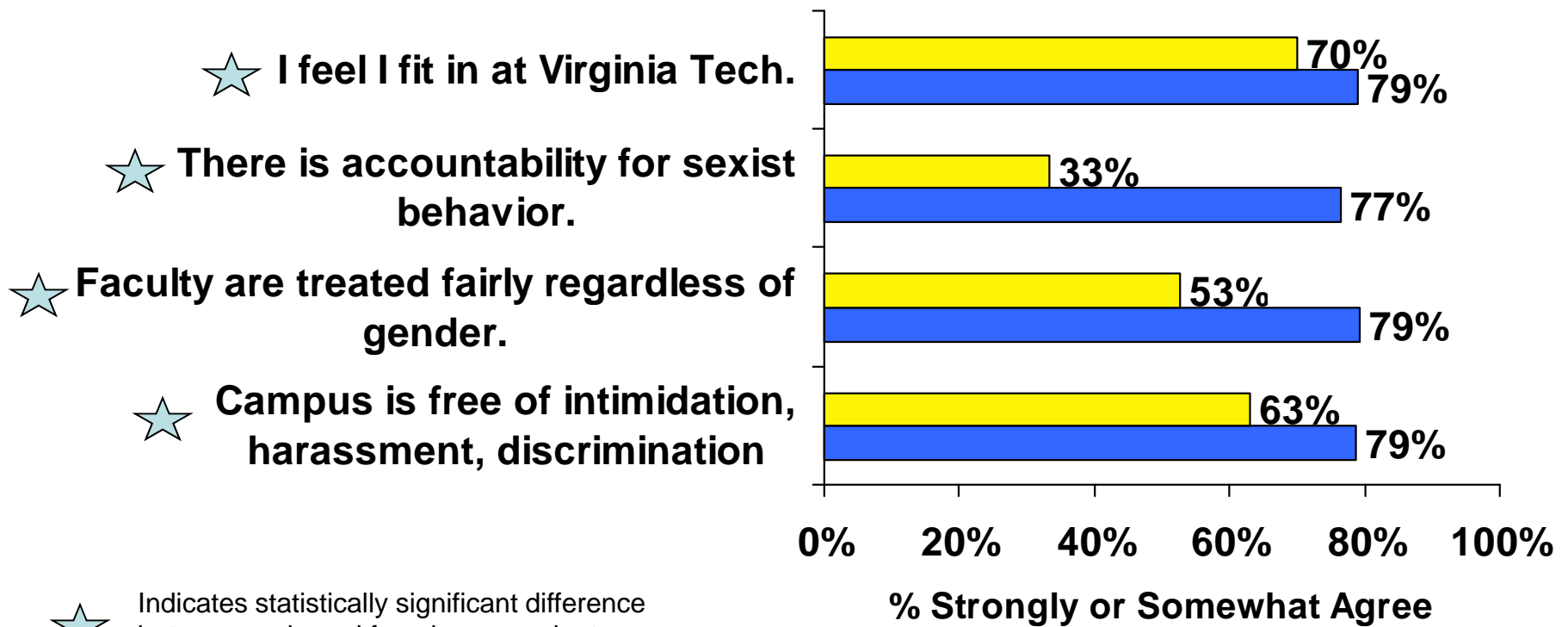
What we measured:

Women as % of Full Professors

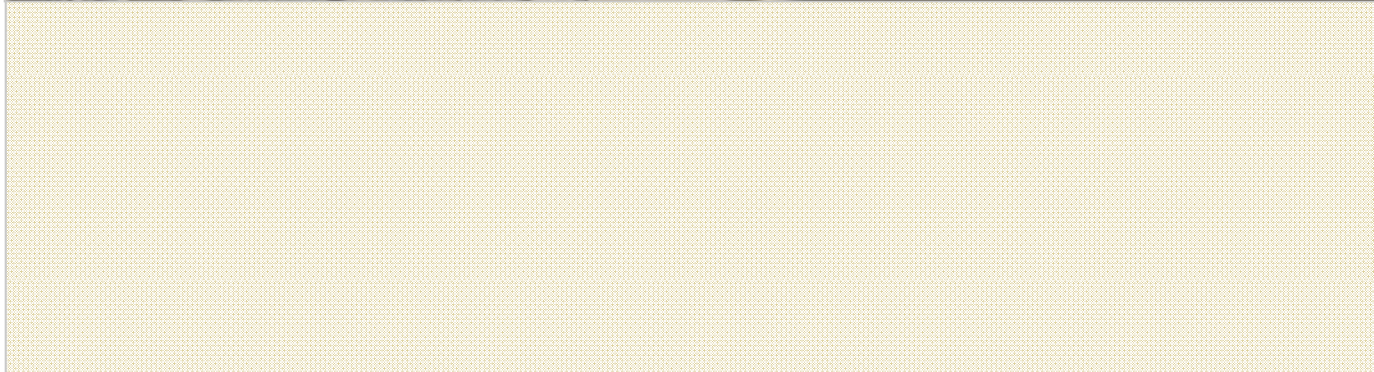


Significant differences by gender in perceptions of *university* climate.

2008 Survey Responses



★ Indicates statistically significant difference between male and female respondents.



What we measured:

Modified Duties Cases

	2006-07	2007-08	2008-09	2009-10	2010-11
Childbirth/ adoption	4	10	5	7	9
Personal health	0	2	1	0	3
Other	0	6	0	3	1
Total	4	18	6	10	13

Stories Can Be Very Powerful

➤ Reflections on Faculty Worklife

“I am feeling more and more that you sign on as a faculty member to work 24/7.”

“Right now I feel like everyone thinks they own my soul, I feel abused.”

➤ Lack of flexibility in tenure and promotion

“Expectations are built around men at this university who have stay-at-home wives...”

“I waited until post tenure to start a family and now it is too late. My biological clock stopped before my tenure clock did.”

Stories Can Be Very Powerful

➤ Dual Career hiring:

“Without [the dual career office], we would not have come. I think it’s critical because lots of people have spouses that are also in research or in the same area, so they will only come if you hire both.”

➤ Stopping the Tenure Clock:

“[The stop-the-clock policy] was one of the reasons I chose VT because eventually I would like to start a family and knowing that I had the flexibility to do that made me feel that work-life was actually valued here.”

Focus group feedback:

- “One thing that has been a change I think largely as a result of the Advance grant is I do think the focus on work-life balance and being more family-friendly.”
- “It’s actually OK to have a baby...it’s acceptable...Twenty years ago ... you would have tried to have a baby on the side...”

Focus group feedback:

- “I think that the grant and the program have created a fundamental shift in the university’s culture...It’s been a really positive thing for the university.”
- “My biggest concern is it’s still so department by department, the culture.”

What we learned

- The importance of consistent, proactive institutional leadership.



What we learned

- The importance of allies.



What we learned

- The importance of community among women.



Reflections

- Women experience faculty life differently from men



Reflections

- Flexibility is not just a women's issue; men also want greater flexibility in their careers
- Work-life balance is not just an issue for women or for pre-tenure faculty; men and senior faculty need it too



Reflections

- ✓ Perceptions matter
- ✓ People value different kinds of evidence
- ✓ Faculty norms and culture are very difficult to change
- ✓ Change is happening, but is slow and variable



Recommendations

- ✓ Approach must be comprehensive and responsive to *institutional context*
- ✓ Involve the *whole institution*
- ✓ Use *data of all types* to nurture an evidence-based culture
- ✓ Borrow freely and *adapt strategies* of others

Observations: Associate Professors

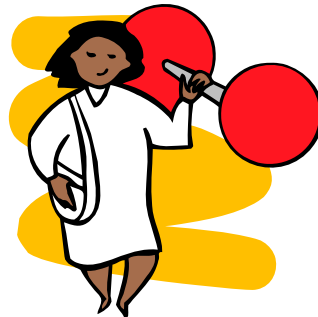
- Developmental approach to faculty support
- Publications, funding, running labs, departments
- Faculty and staff personnel!
- Graduate students, tenure and search committees
- Teenage children!

Associate Professors

- Staying fresh – new ideas, shifts in research and teaching
- Try something new: administration (eek!)
- Interdisciplinary collaborations
- Leadership development, benchmark yourself, peer mentoring

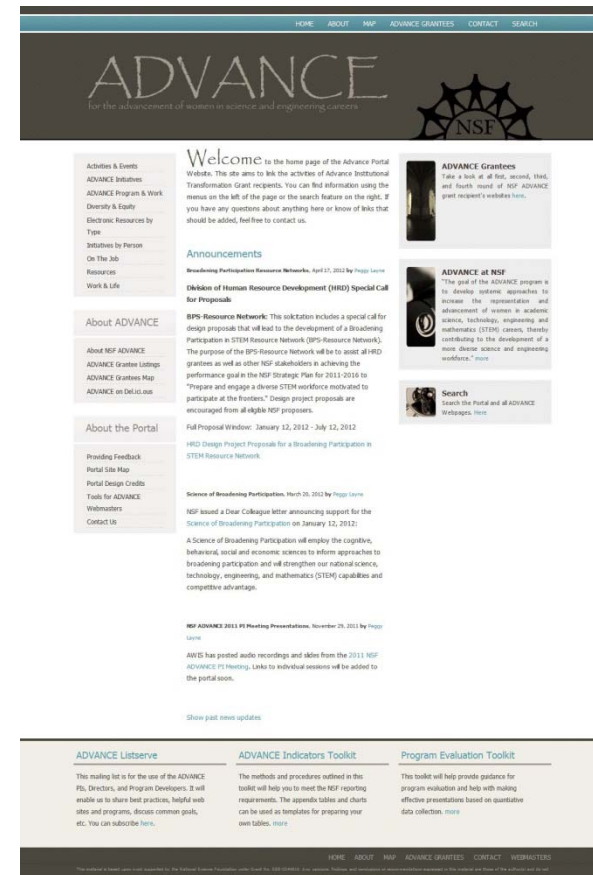
Recommendations

- ✓ Persistent, effective leadership from the top is critical
- ✓ Involve men and make changes that address needs of men also
- ✓ Money helps but many important changes cost relatively little
- ✓ This work is not for the faint of heart!



Advance Portal Website

- Link to information on ADVANCE grantee web sites
- Facilitate sharing among ADVANCE grantees
- Make findings of ADVANCE grantees available to all



Acknowledgements

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