



W I S E L I

Women in Science & Engineering Leadership Institute
University of Wisconsin-Madison



ADVANCE

- The goal of the NSF's ADVANCE Institutional Transformation program is to improve the participation and advancement of women in academic science & engineering
- UW-Madison received an ADVANCE: IT award in the first round
 - 2002 - 2005
 - \$3.75 Million
 - Non-renewable



Women in Science & Engineering Leadership Institute (WISELI)

- Mount new initiatives that fill gaps in UW-Madison's environment
- Evaluate impact of both old and new initiatives
- Perform research to understand issues for women faculty
- Develop a visible presence on campus
- Disseminate current best-practices





Major WISELI Research Projects

- *Study of Faculty Worklife at UW-Madison*
 - All-faculty surveys in 2003 and 2006
- Ethnographic study of gender in a laboratory setting
- Discourse analysis of gendered interactions in meetings
- Exit interviews with women STEM faculty who left UW-Madison
- Analysis of pools and recipients of major campus awards



Major WISELI Programs

- *Searching for Excellence & Diversity*
 - Workshops for chairs of hiring committees at UW-Madison
 - *Implementing Training for Search Committees* workshop for other campuses
- *Enhancing Department Climate: A Chair's Role*
- *Vilas Life Cycle Professorship Program*
- *Celebrating Women in Science & Engineering Grant Program*



Searching for Excellence & Diversity

- Active learning/peer teaching
- 5 Essential Elements of a Successful Search
- 1-session, 2-session models, or meeting with individual committees or chairs
- College-based or campus-wide
- Include campus leaders and experts in the workshops
 - Workshop introduction by high-level administrator
 - Campus experts from legal, EEOC, community relations, dual career hiring program, etc.



Searching for Excellence & Diversity

- Element 3: Raise Awareness of Unconscious Assumptions and their Influence on Evaluation of Candidates
 - Wennerås and Wold 1997
 - Steinpreis, Anders, and Ritzke 1999
 - Trix and Psenka 2003



Assumptions/stereotypes about groups are unconsciously applied to individuals

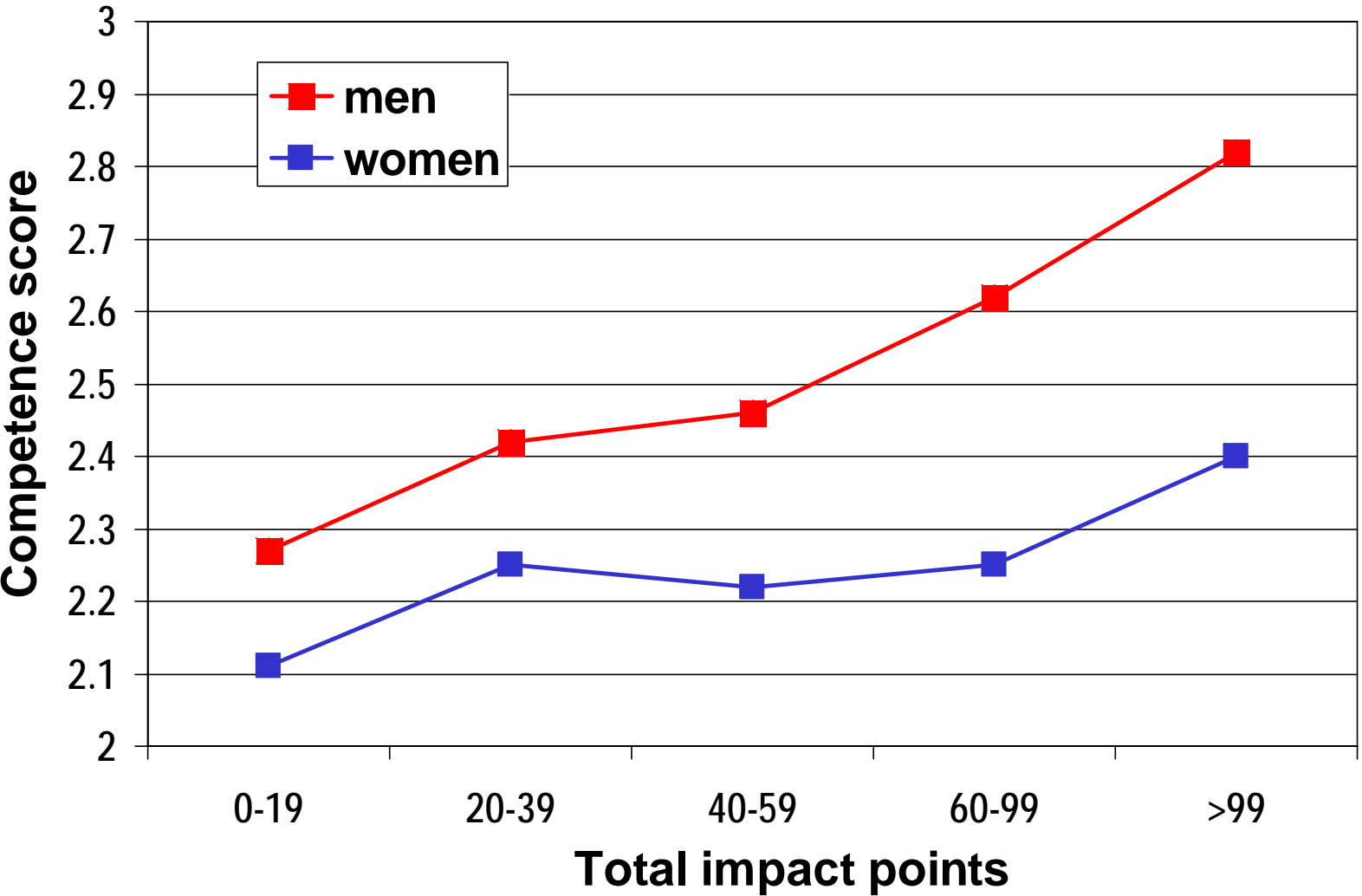
- Unconscious assumptions and stereotypes allow us to quickly and economically organize and retrieve information
- The three primary group characteristics of individuals that are stereotyped across a broad range of social contexts are race/ethnicity, sex, and age
- While these unconscious assumptions may be inaccurate on individual or even group levels, they have profound influence on our actions



Wennerås & Wold, *Nature*, 1997

- 114 applications for prestigious research postdocs to Swedish MRC (52 women)
- Reviewers' scores vs standardized metric from publication record = impact points
- Women consistently reviewed lower, especially in “competence”
- Women had to be 2.5x as productive as men to get the same score
- To even the score, women needed equivalent of 3 extra papers in a prestigious journal like *Science* or *Nature*

Wennerås & Wold, *Nature*, 1997





Steinpres et al., *Sex Roles*, 1999

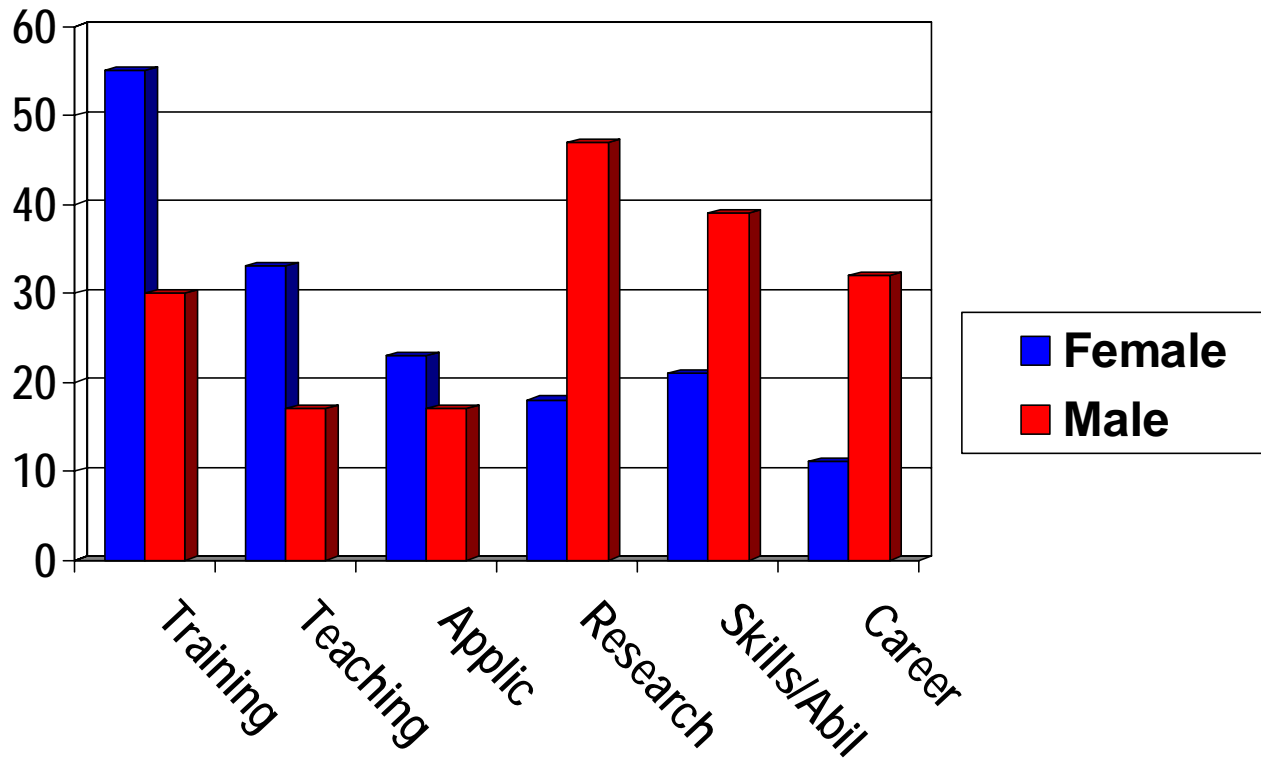
- Curriculum vitae sent to 238 academic psychologists (118 male, 120 female)
- Randomly assigned male or female name to cv
- Academic psychologists gave cv's with male names attached higher evaluations for
 - Teaching
 - Research
 - Service Experience
- More comments on cvs with female name
- Evaluators were more likely to hire the male than the female applicant



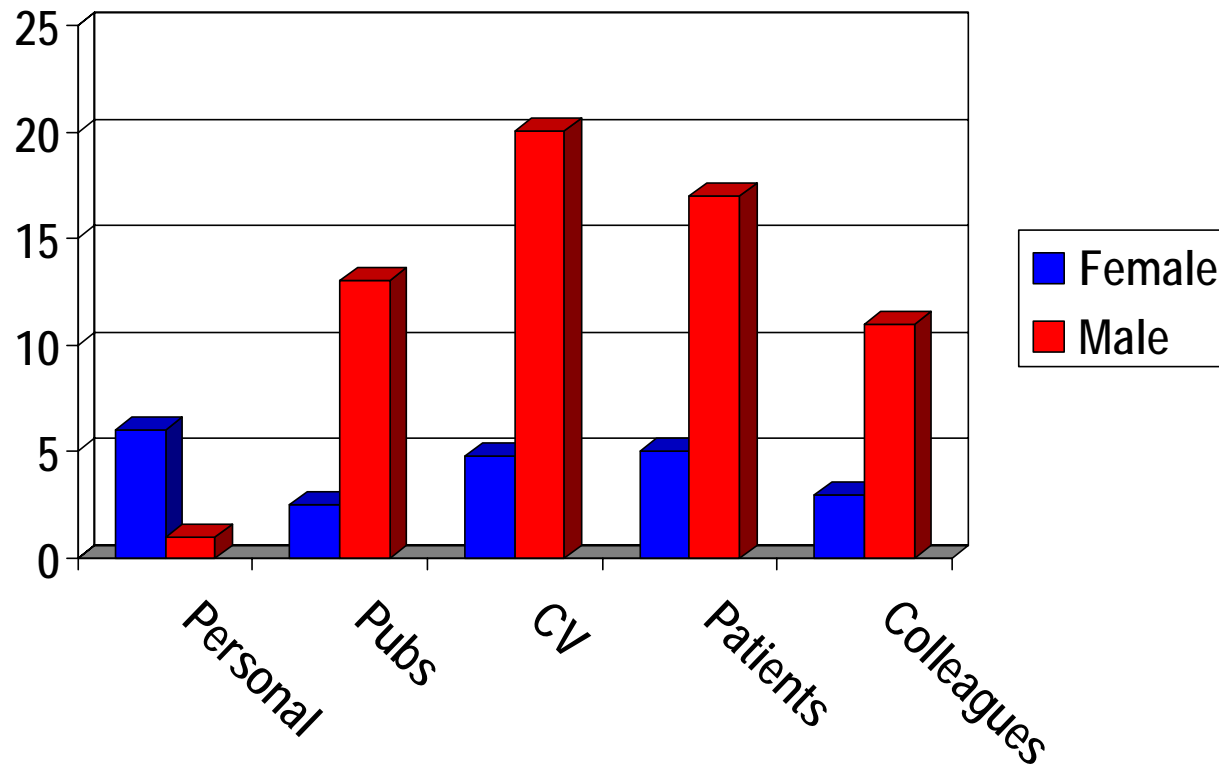
Trix and Psenka, *Discourse & Society*, 2003

- 312 letters of rec for medical faculty hired at large U.S. medical school
- Letters for women vs men:
 - Shorter
 - 15% vs 6% of *minimal assurance*
 - 10% vs 5% with *gender terms* (e.g. “intelligent young lady”; “insightful woman”)
 - 24% vs 12% *doubt raisers*
 - *Stereotypic adjectives*: “Compassionate”, “related well...” vs “successful”, “accomplished”
 - 34% vs 23% *grindstone adjectives*
 - Fewer *standout adjectives* (“outstanding” “excellent”)

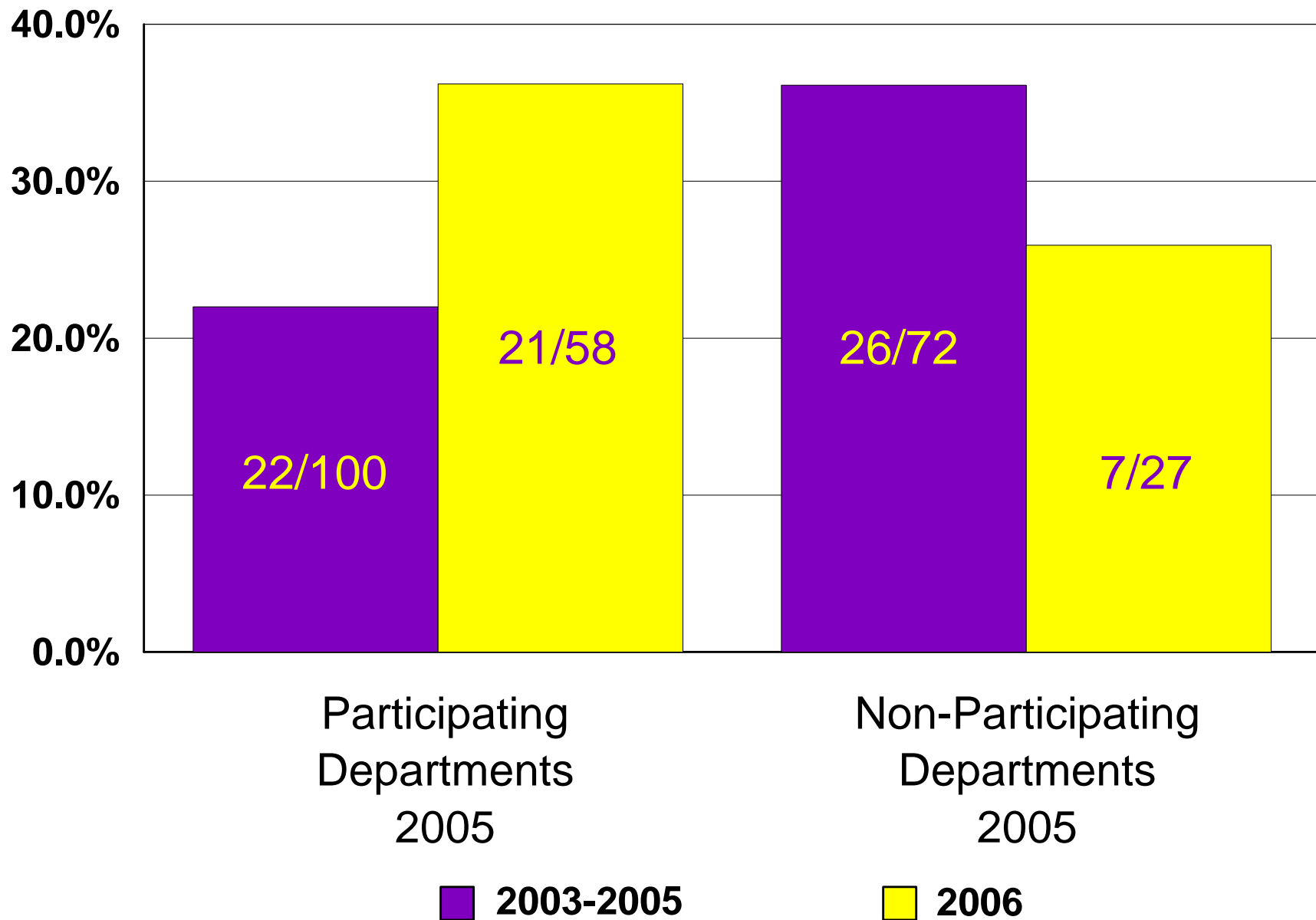
Semantic realms following possessive (e.g. "her training"; "his research")



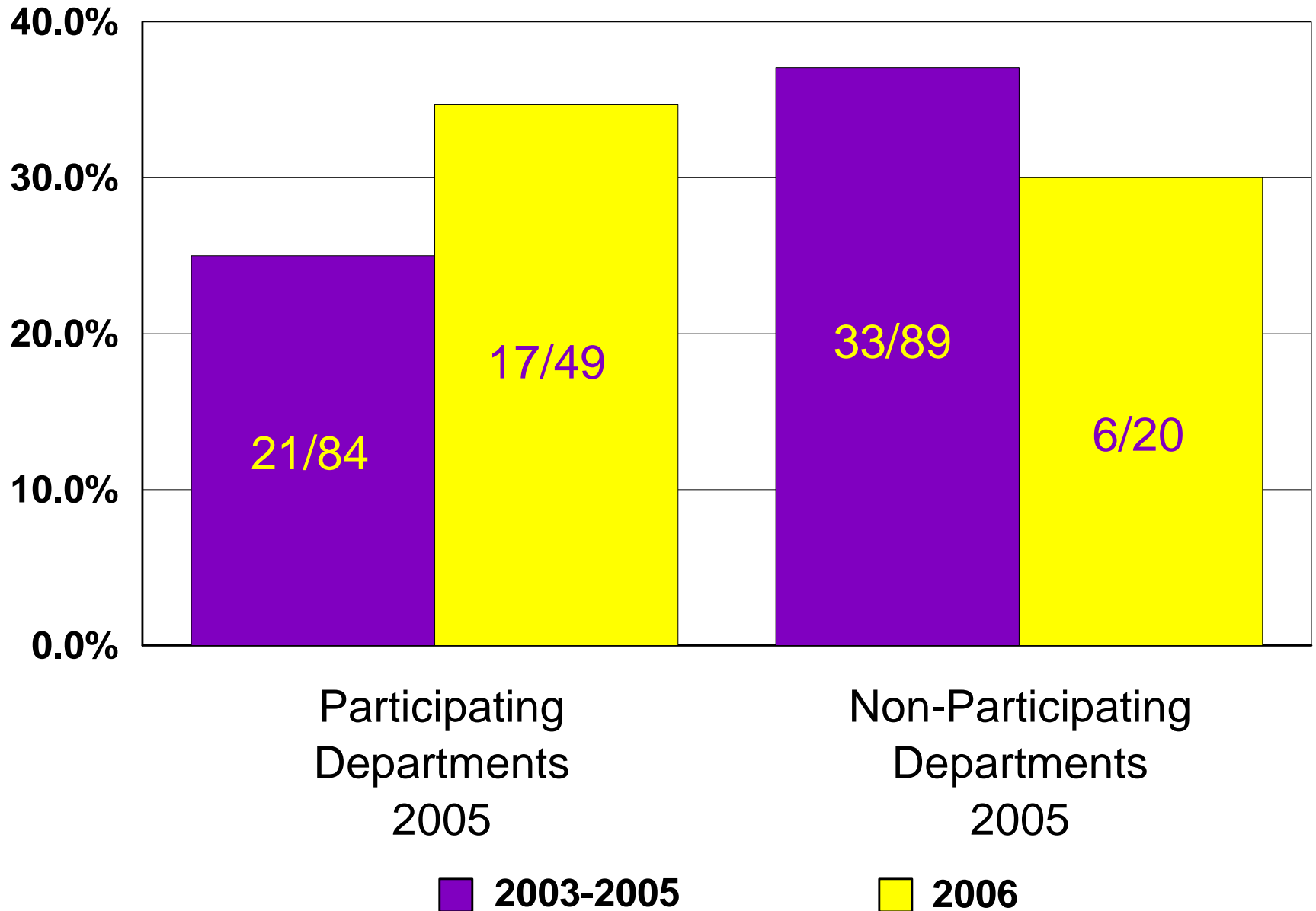
Distinctive semantic realms following possessive



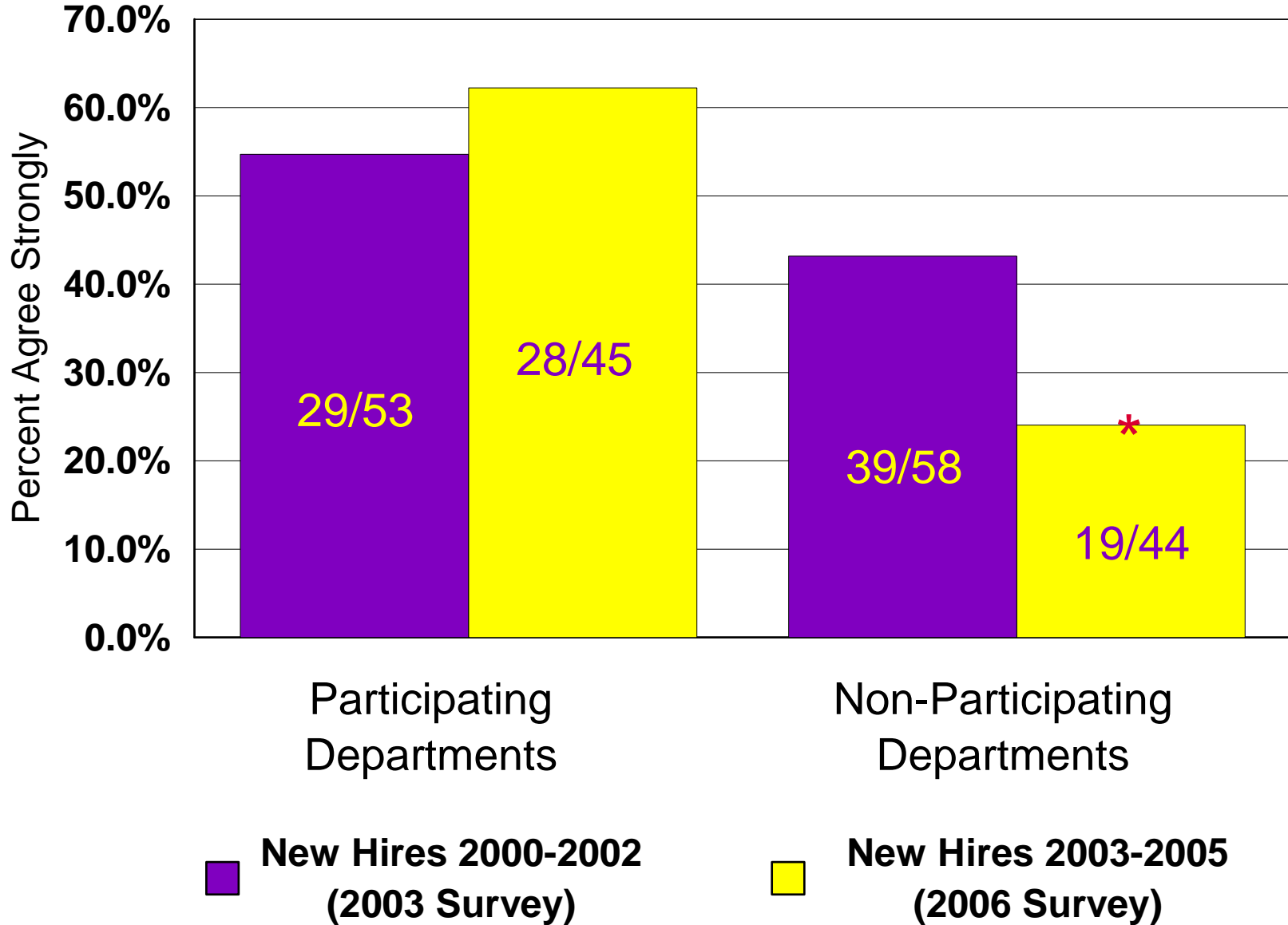
Percent Female, Tenure-Track Faculty Offers Biological & Physical Sciences



Percent Female, New Tenure-Track Faculty Biological & Physical Sciences



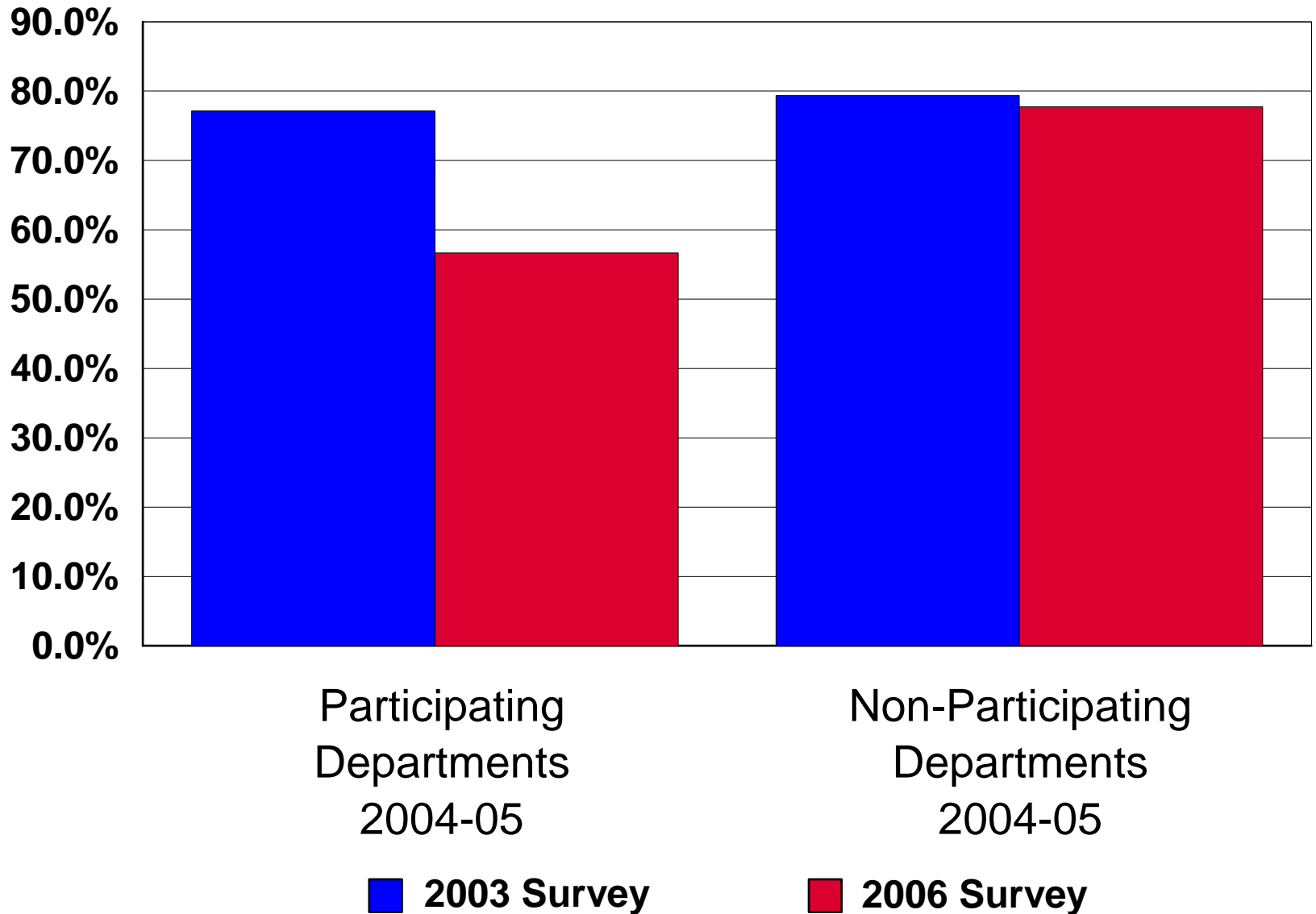
New Hires' Satisfaction* With the Hiring Process Biological & Physical Sciences



* Agree Strongly to the item "I was satisfied with the hiring process overall."

The Climate for Faculty of Color is Good

Biological & Physical Sciences

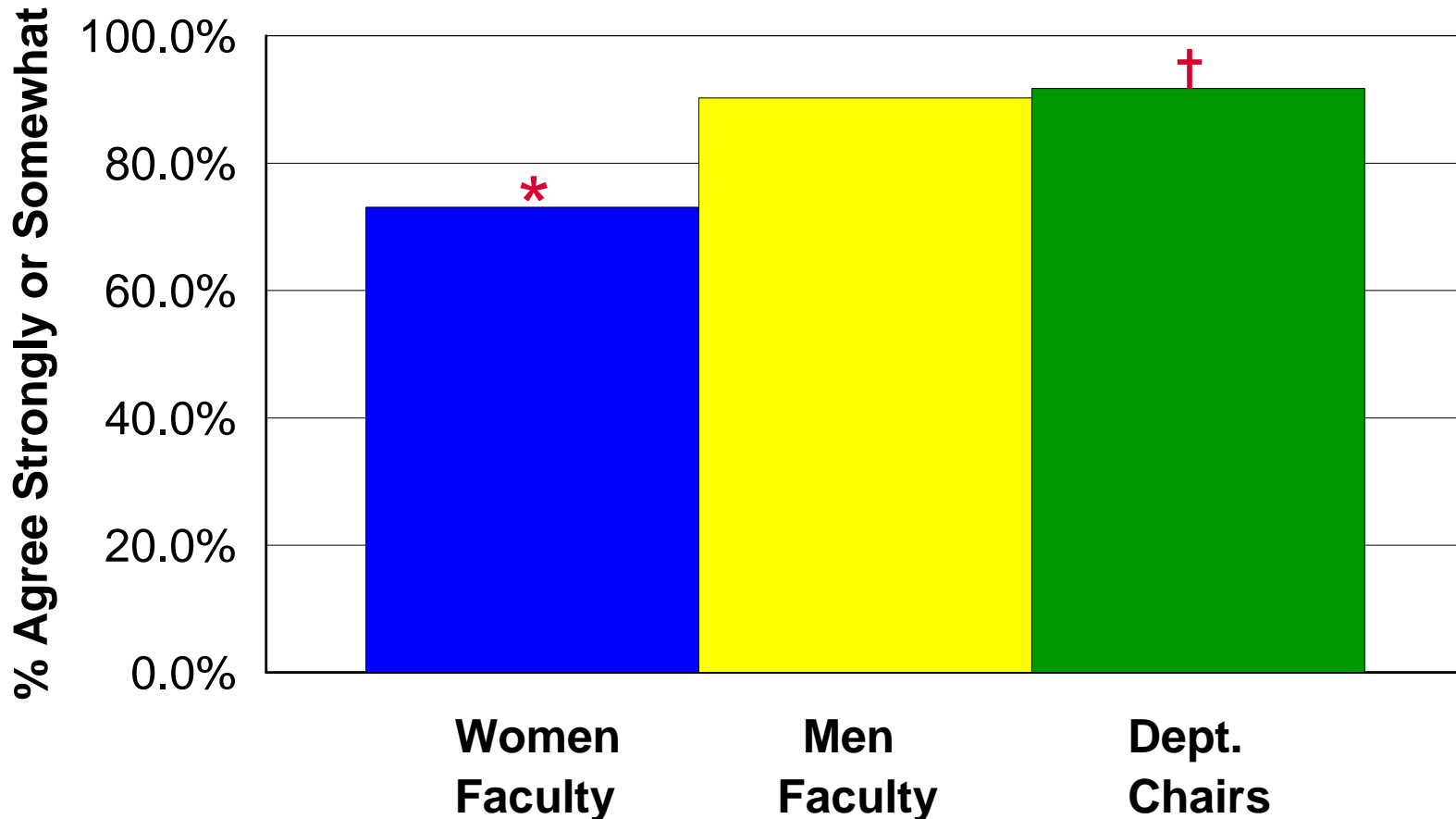




Enhancing Department Climate: A Chair's Role

- Individuals experience climate in their immediate workplace – the department
- Chairs can significantly influence women's experiences in their departments
- Chairs' perspectives of climate differ from those of other faculty, especially women faculty

The climate for women in my department is good



* Significant t-test between women and men faculty at $p < .05$.

† Significant t-test between dept. chairs and all other faculty at $p < .05$.



Enhancing Department Climate: A Chair's Role

- 3-Session Workshop
- Active learning/peer teaching
- Small groups (6-8) of department chairs
- Short web-based departmental climate survey implemented between meetings 1 and 2

Chairs' Evaluation Department Climate Change After Workshop Participation

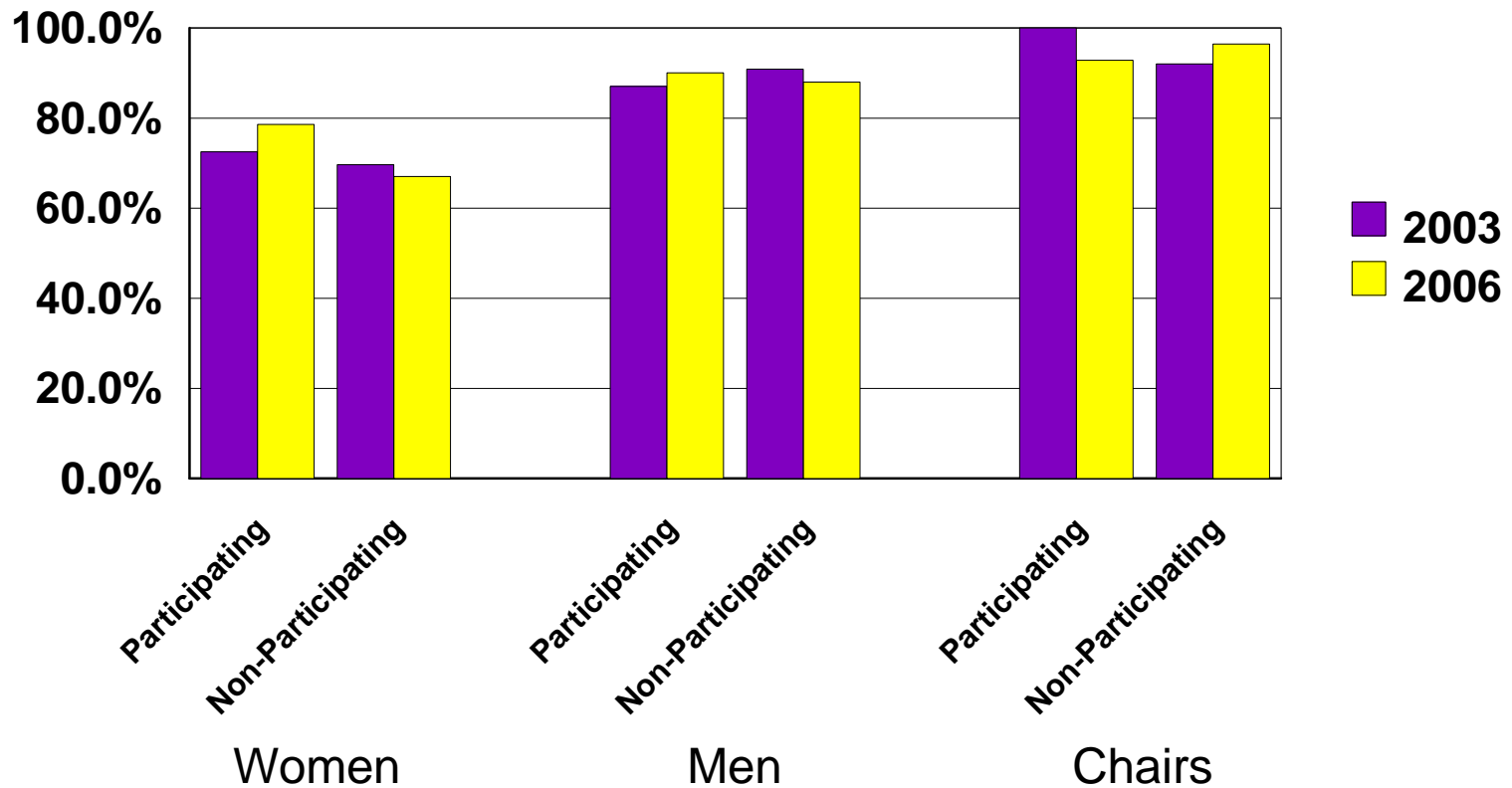
The climate is:	
Significantly more positive	2 (11%)
Somewhat more positive	12 (63%)
The same as it was before	5 (26%)
Somewhat more negative	0
Significantly more negative	0

Evidence from Participating Departments

Departments Resurveyed	Mean 1 st Survey	N	Mean 2 nd Survey	N	Change
Department A	3.21	24	3.71	56	0.5
Department B	3.07	15	3.29	17	0.22
Department C	3.82	60	4.25	53	0.43
Department D	3.79	124	3.63	86	-0.16
Overall Mean Score	3.47		3.72		0.25

Evidence from Participating Departments

Percent Agree: The Climate for Women In My Department is Good

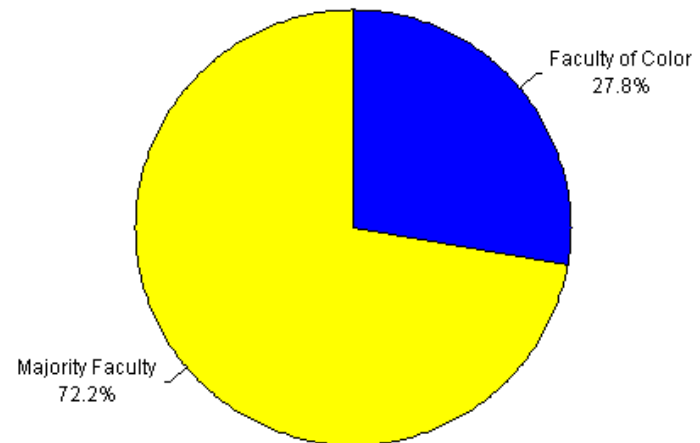
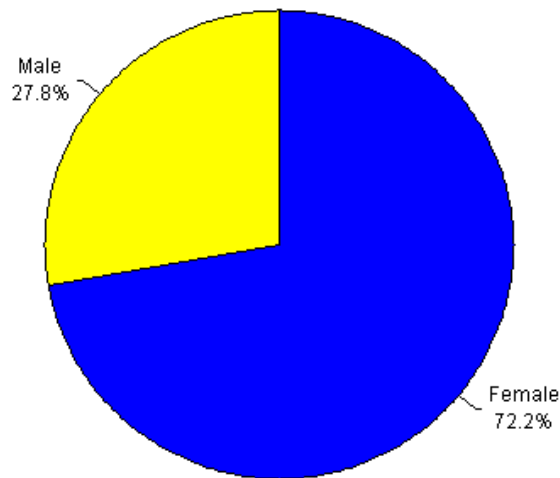


* Biological and Physical Science Departments Only

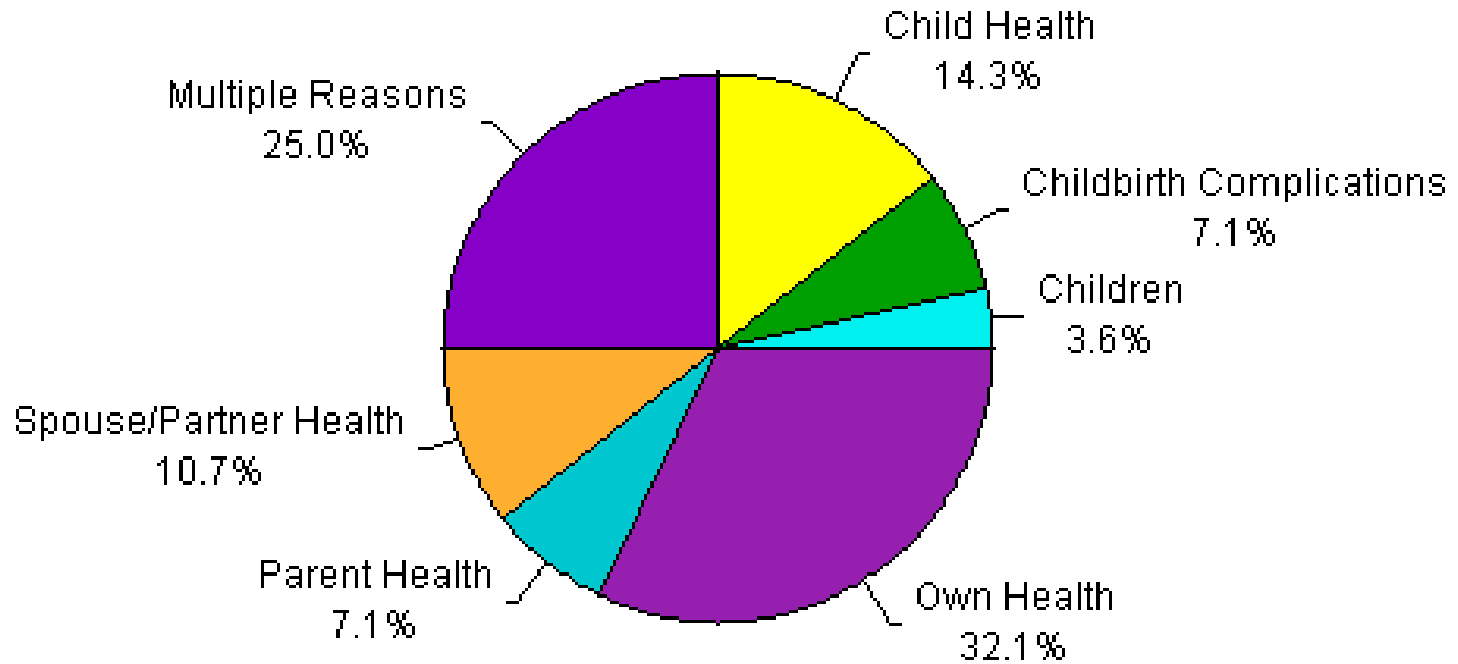


Vilas Life Cycle Professorship Program

- Provide grants to faculty whose research program is impacted by life events
- \$310,000 annually (funded by the Estate of William F. Vilas)



Reasons for Grant: Awardees





Celebrating Women in Science & Engineering Grant Program

- Provides funds to departments, centers, or student groups wishing to enhance their own seminar schedules or especially to create new workshops, symposia, lecture series, or similar events
- \$10,000/year
- Since 2002, we have awarded 34 grants, and have brought in 66 women speakers to 24 departments/programs in five schools/colleges
- Major program evaluation scheduled for 2009



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