



W I S E L I

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

## Evaluating Faculty Candidates:

Understanding and minimizing the  
influence of unconscious bias

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# Introduction

## Why provide education for search committees?

- Faculty members receive little education about the search process
- A faculty search is costly (time and money)
- Provides an opportunity to achieve campus goals of diversifying the faculty



# Introduction

## Searching for Excellence & Diversity®: Workshops for Search Committee

### Guiding Principles

- Research Based
- Peer Training
- Active Learning
- Accountability

### Content

1. Run an effective and efficient search committee
2. Actively recruit an excellent and diverse applicant pool
3. Raise awareness of unconscious bias and assumptions and their influence on evaluation of candidates
4. Ensure a fair and thorough review of candidates
5. Develop and implement an effective interview process



# Introduction

## Searching for Excellence & Diversity®: Workshops for Search Committee

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# Overview

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1. What is “unconscious bias”?
2. How might unconscious biases influence evaluation of faculty candidates?
3. How can a search committee minimize the influence of bias?
4. Does educating search committees work?



# What is unconscious bias?

- A substantial body of evidence demonstrates that most people – men and women – hold unconscious biases about groups of people.
- Depending on the discipline unconscious biases can also be referred to as:
  - Schemas
  - Stereotypes
  - Mental models
  - Cognitive shortcuts
  - Statistical discrimination
  - Implicit associations
  - Spontaneous trait inference

**The tendency of our minds to apply characteristics of groups (real or imagined) to our judgments about individual group members.**



# What is unconscious bias?

- Most of us routinely rely on unconscious assumptions even though we intend to be fair and believe that we are fair.
- Human brain works by categorizing people, objects and events around us -- this allows us to quickly and efficiently organize and retrieve information.



# How is the research on bias and prejudice conducted?

- **Blind, randomized trials**
  - Give each group of evaluators pictures, words, or applications with a racial or gender indicator
  - Compare evaluations
  
- **Real life studies**
  - Evaluate actual resumé/cv, job performance, letters of recommendations, call backs for interviews, etc.



# Examples of Blind, Randomized Trials

- When shown photographs of people who are the same height, evaluators overestimated the heights of male subjects and underestimated the heights of female subjects. Biernat et al. (1991). “*Stereotypes and Standards of Judgment.*” *J Pers & Soc Psychol* 60:485-499.
- When asked to rate the quality of verbal skills indicated by a short text, evaluators rated the skills lower if they were told an African American wrote the text than if they were told a white person wrote it, and rated verbal skills higher when told that a woman wrote it than when told a man wrote it. Biernat and Manis. (1994). “*Shifting Standards and Stereotype-based Judgments.*” *J Pers & Soc Psychol* 66: 5-20.



# Examples of Real Life Studies

## Evaluation of Curriculum Vitae

Steinpreis et al. (1999) "The Impact of Gender on the Review of the Curricula Vitae of Job Applicants and Tenure Candidates: A National Empirical Study." *Sex Roles* 41: 509 -528.

- Curriculum vitae of an actual applicant evaluated by 238 academic psychologists (118 male, 120 female)
  - One cv – at time of job application (jr-level)
  - One cv – at time of early tenure (sr-level)
  
- Randomly assigned a male or female name to each cv



# Examples of Real Life Studies

## Evaluation of Curriculum Vitae (Cont.)

Steinpreis et al., *Sex Roles* 41: 509 1999

- For entry-level cv: Academic psychologists were more likely to hire male applicants and gave men higher ratings for
  - Teaching
  - Research
  - Service Experience
- For tenure-level cv: Academic psychologists were equally likely to tenure men and women candidates, **but** were four-times more likely to include cautionary comments on cv's with a female name.



# Examples of Real Life Studies

## Evaluation of Resumés

Bertrand and Mullainathan. (2004) "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review* 94: 991-1013.

- Resumes sent to a variety of employers advertising openings in local newspapers in Chicago and Boston
- Randomly assigned “white-sounding” or “African American-sounding” names to resumes
- Applicants with “white-sounding” names were more likely to be called back to interview for positions.
- For “white-sounding” names, applicants with better qualifications were more likely to be called back. For “African American-sounding” names, applicants with better qualifications were **not** more likely to be called back.



# Examples of Real Life Studies

## Analysis of Letters of Recommendation

*Trix and Psenka. (2003). "Exploring the Color of Glass: Letters of Recommendation for Female and Male Medical Faculty." Discourse & Soc 14: 191-220.*

- 312 letters of recommendation for medical faculty **successfully hired** at large U.S. medical school
- Letters for women vs men:
  - Shorter
  - More letters for women with “*minimal assurance*”
  - More gendered terms in letters for women
  - More letters for women included “*doubt raisers*”
  - Men more frequently referred to as “researchers” and “colleagues”. Women more frequently referred to as “teachers” and “students”
  - Women – 4X more references to personal lives
  - Women - Fewer *standout adjectives* (“outstanding” “excellent”) and more *grindstone adjectives*.



# Other Examples

## ■ Gender Stereotypes & Leadership

- Heilman, et al. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416-427.

## ■ Motherhood Bias

- Correll, S. J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *The American Journal of Sociology*, 112(5), 1297-1338.

## ■ Sexual Orientation

- Hebl, M. R., et al. (2002). Formal and interpersonal discrimination: A field study of bias toward homosexual applicants. *Personality & Social Psychology Bulletin*, 28(6), 815-825.
- Tilcsik, A. (2011). Pride and prejudice: Employment discrimination against openly gay men in the united states. *American Journal of Sociology*, 117(2), 586-626.

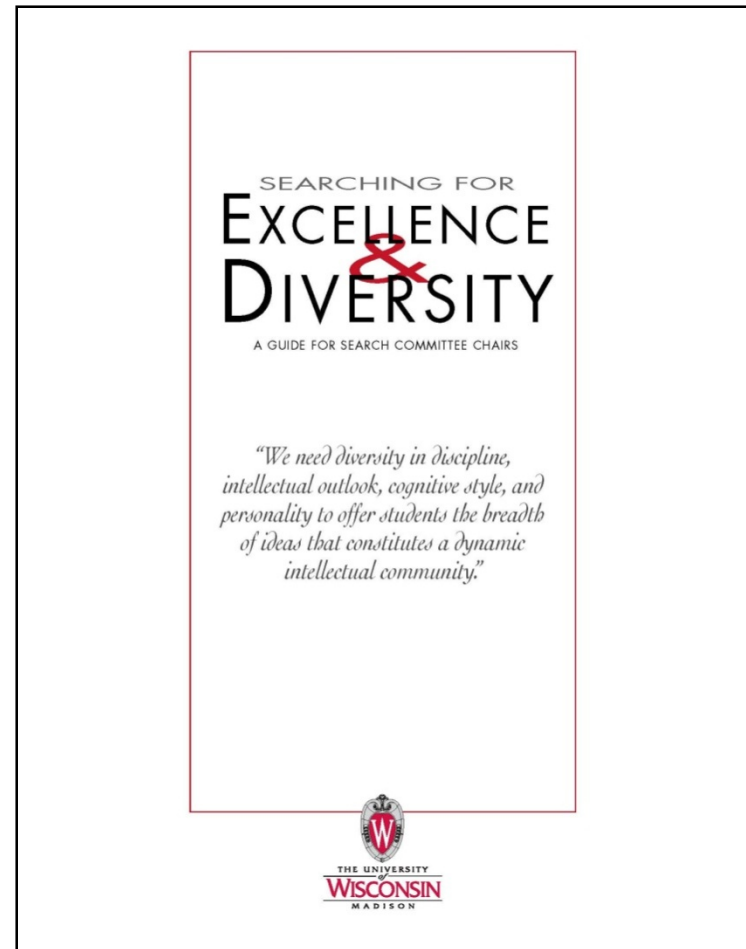


# Minimizing Bias and Assumptions

- Replace your self-image as an objective person with recognition and acceptance that you are subject to the influence of bias and assumptions  
*Uhlmann and Cohen, Organizational Behavior and Human Decision Processes, 2007*
- Diversify your search committee
  - Social tuning/increased motivation to respond w/o bias  
*Lowery, Hardin, and Sinclair, J. Personality and Social Psychology, 2001*
  - Counterstereotype imaging  
*Blair, Ma, and Lenton, J. Personality and Social Psychology, 2001*
- Critical Mass – increase proportion of women and minorities in the applicant pool  
*Heilman, Organizational Behavior and Human Performance, 1980; van Ommeren et al., Psychological Reports, 2005*
- Develop and prioritize criteria prior to evaluating applicants  
*Uhlmann and Cohen, Psychological Science, 2005*
- Spend sufficient time and attention on evaluating each application  
*Martell, J. Applied Social Psychology, 1991*
- Use inclusion rather than exclusion decision-making processes  
*Hugenberg et al., J. Personality and Social Psychology, 2006*



[http://wiseli.engr.wisc.edu/docs/BiasBrochure\\_2ndEd.pdf](http://wiseli.engr.wisc.edu/docs/BiasBrochure_2ndEd.pdf)



<http://wiseli.engr.wisc.edu/docs/SearchBook.pdf>



# Is it working?

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- Faculty attendance/experience of workshop
- Changing outcomes
- Unexpected outcomes

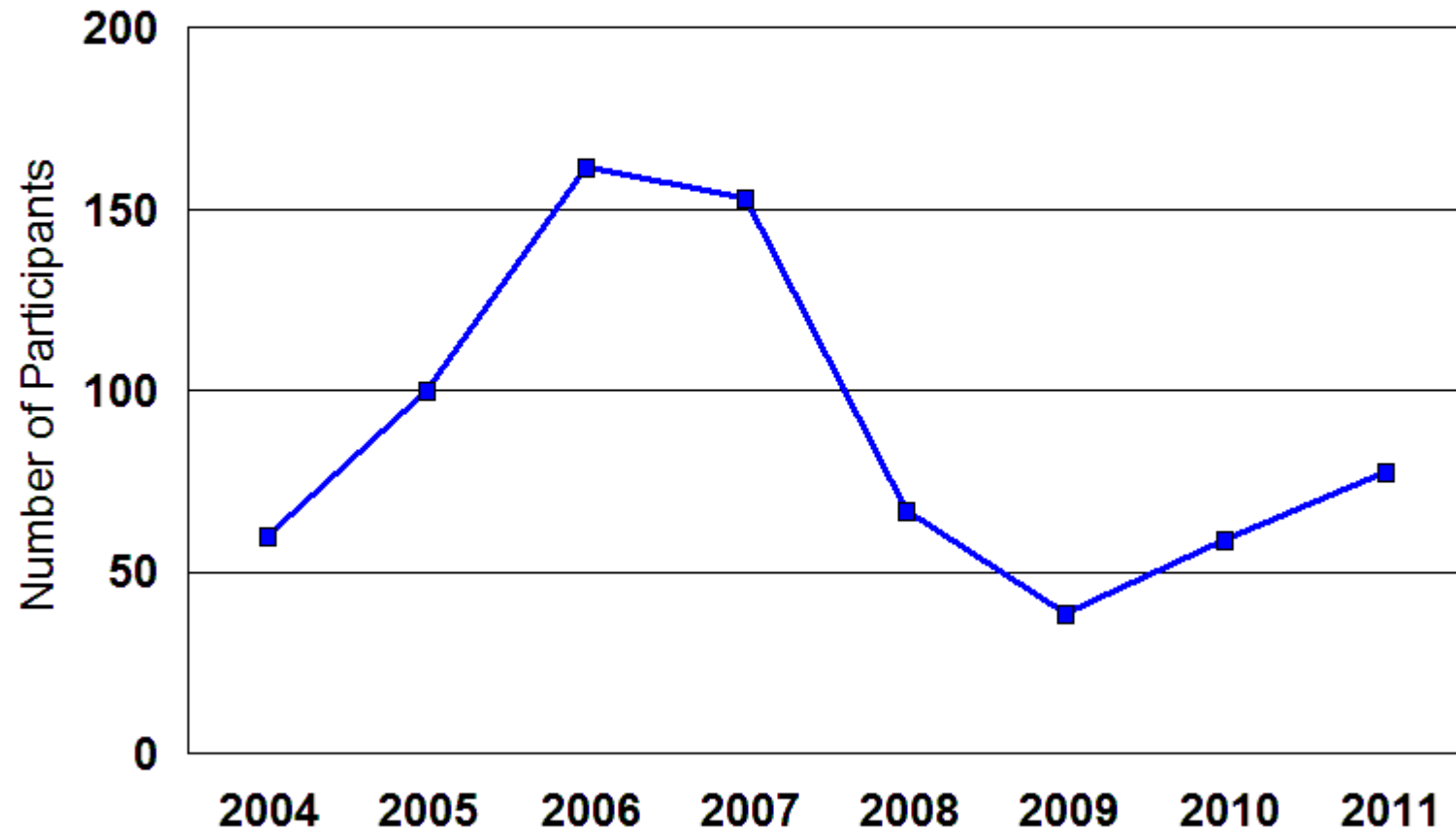


# Faculty attendance/experience of workshop

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- Attendance numbers

## Attendance at Hiring Workshops



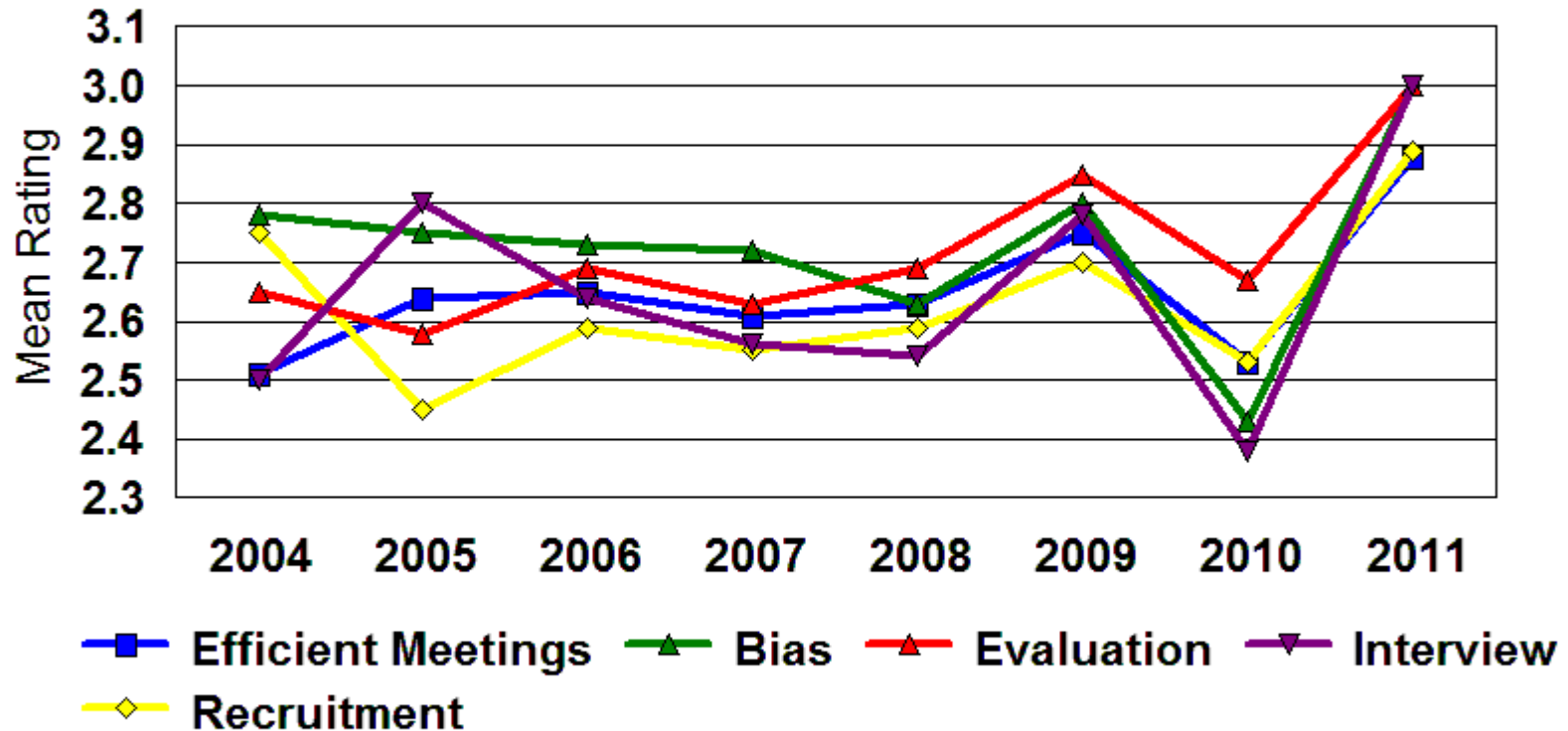


# Faculty attendance/experience of workshop

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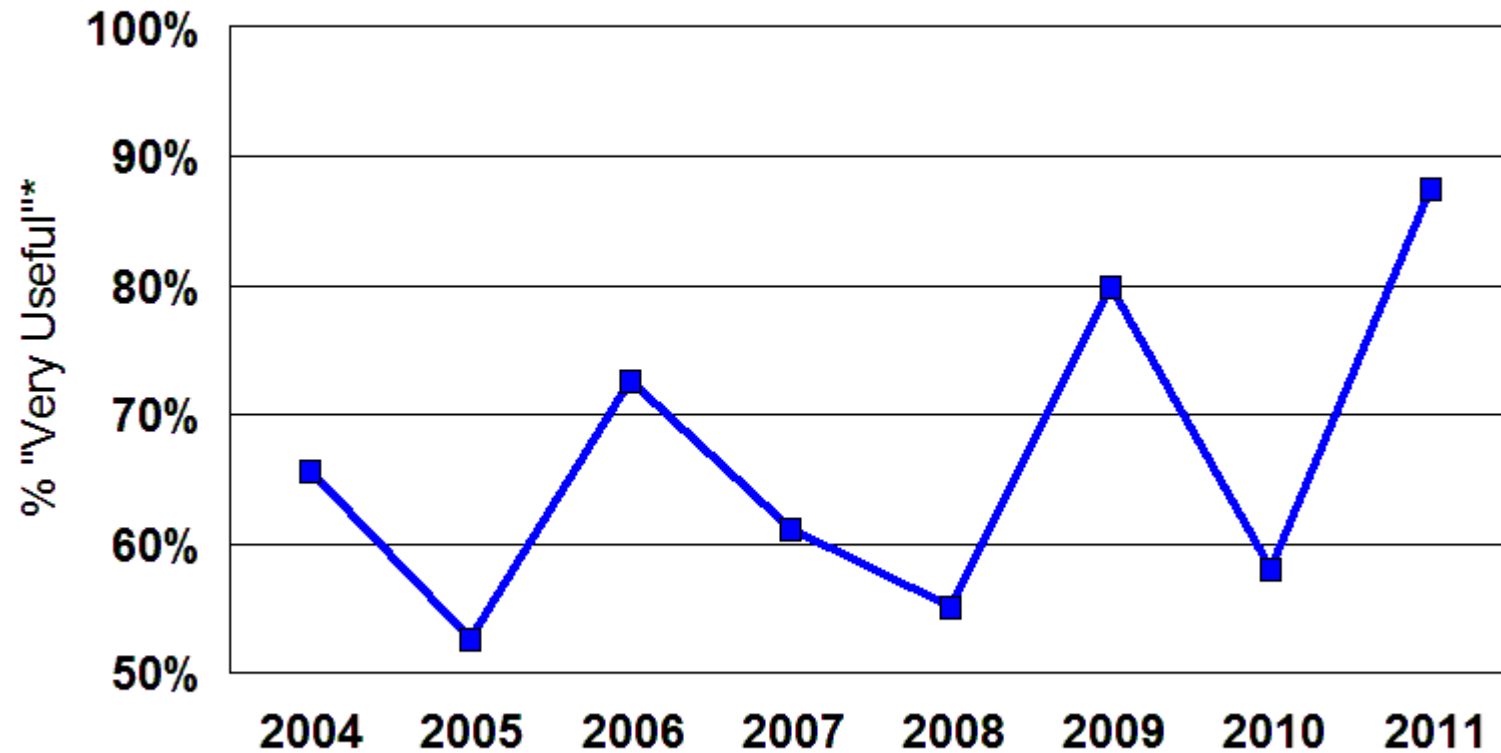
- Attendance numbers
- Evaluation form data

## Usefulness Ratings\* of 5 Workshop Elements



\* Not at all useful, Somewhat useful, Very useful

## Workshop "Very Useful"\*



\* Vs. Somewhat useful or Not at all useful.



# Faculty attendance/experience of workshop

- Attendance numbers
- Evaluation form data
- Requirements
  - 2 deans require attendance at workshop before releasing a faculty position to the department
  - Attendance at workshop by a critical mass in the department is one way a department can have access to new “Strategic Pipeline and Recruitment” funds

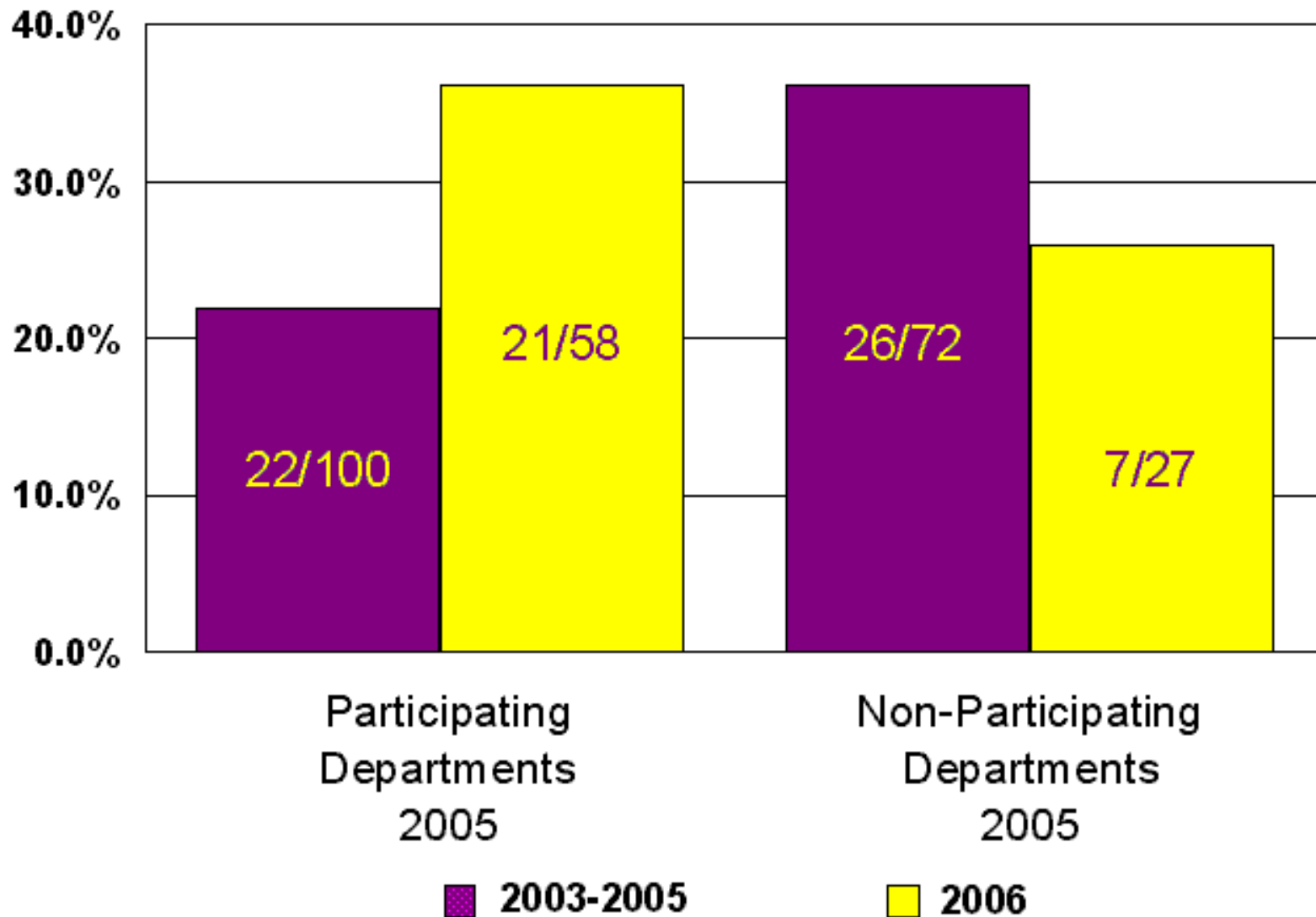


# Changing outcomes

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- Hiring pools, interview lists
  - No data
- New hires

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



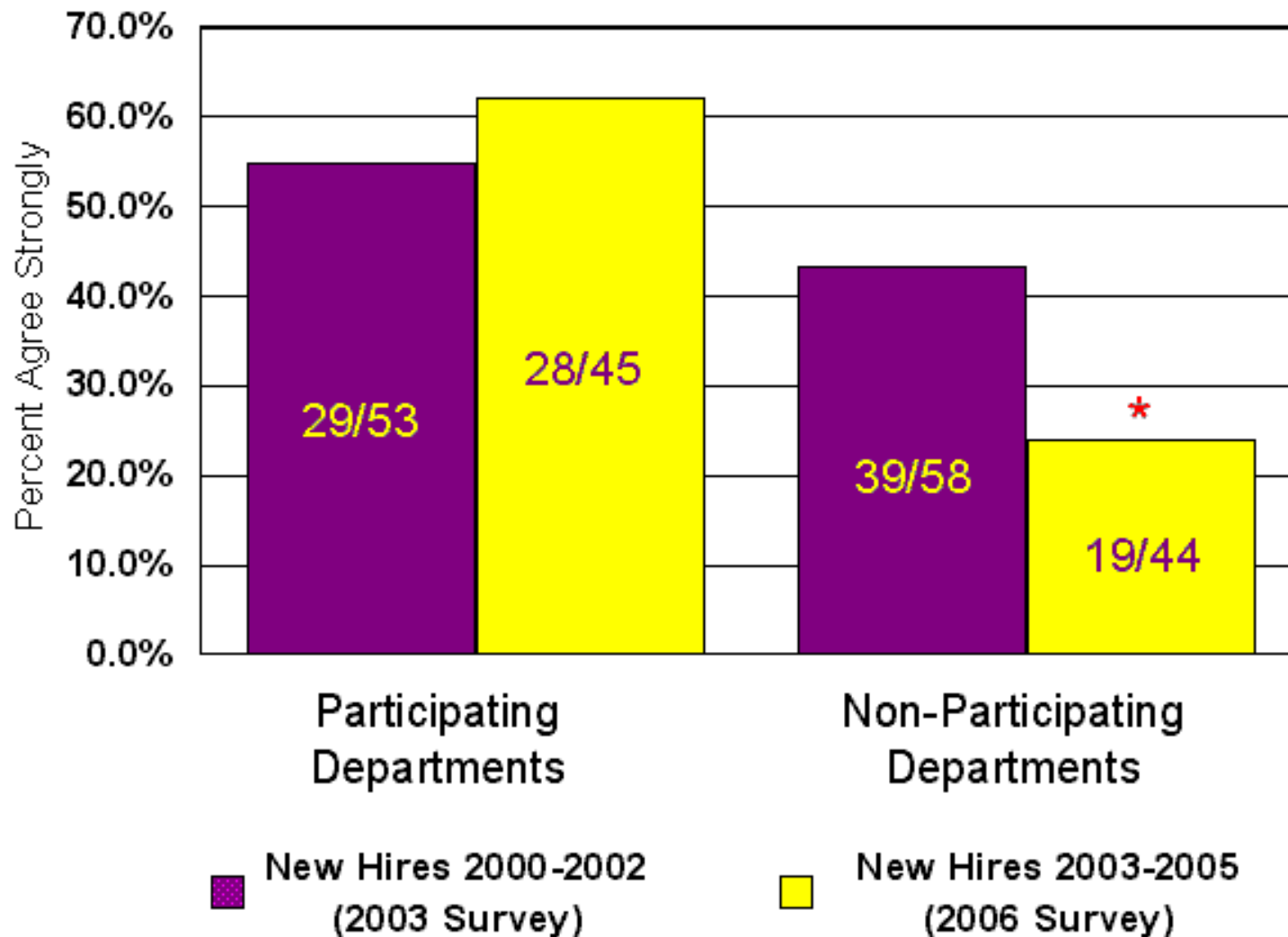


# Changing outcomes

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- Hiring pools, interview lists
  - No data
- New hires
- Experience of candidates

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



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

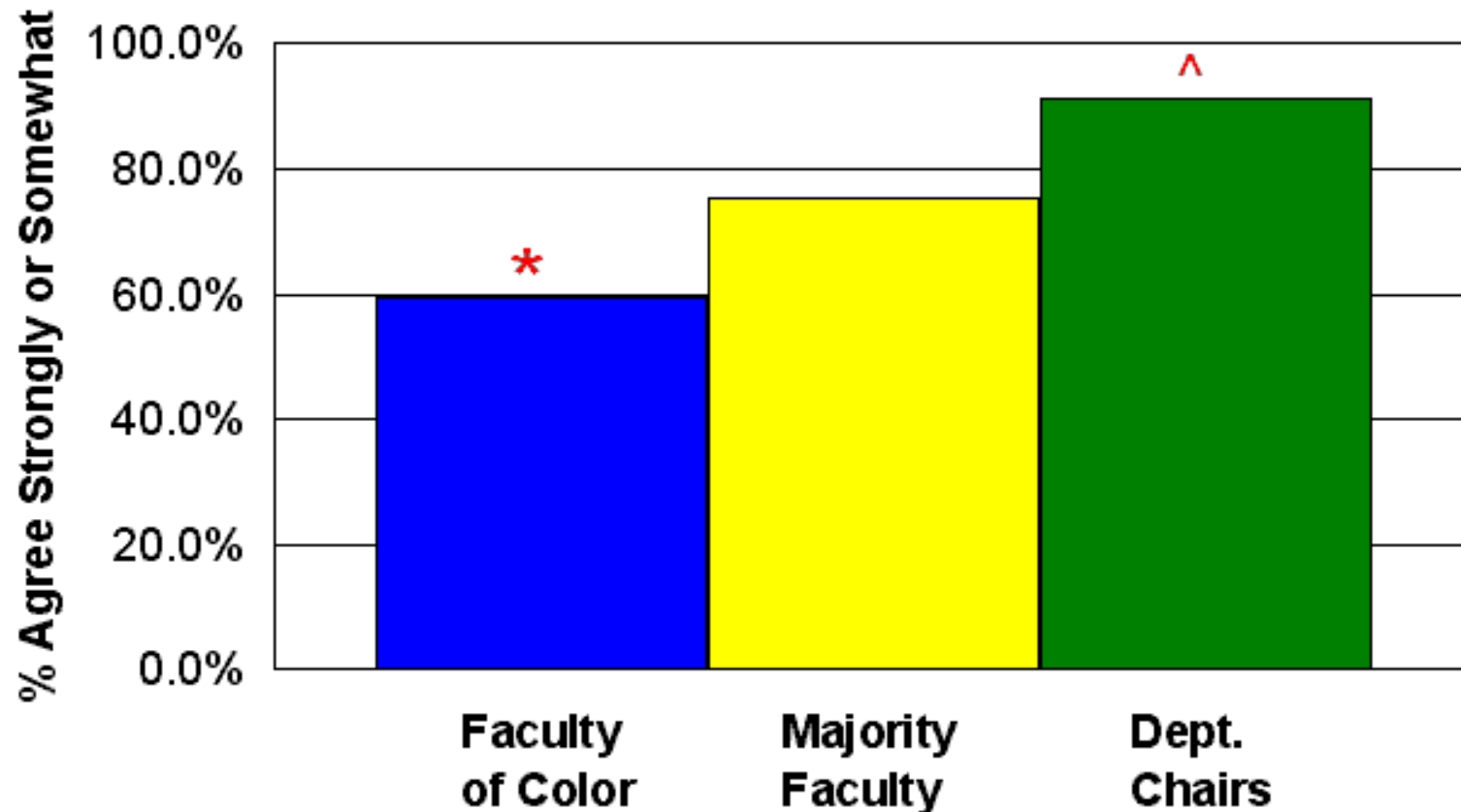


# Unexpected outcomes

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- Changing attitudes towards diversity

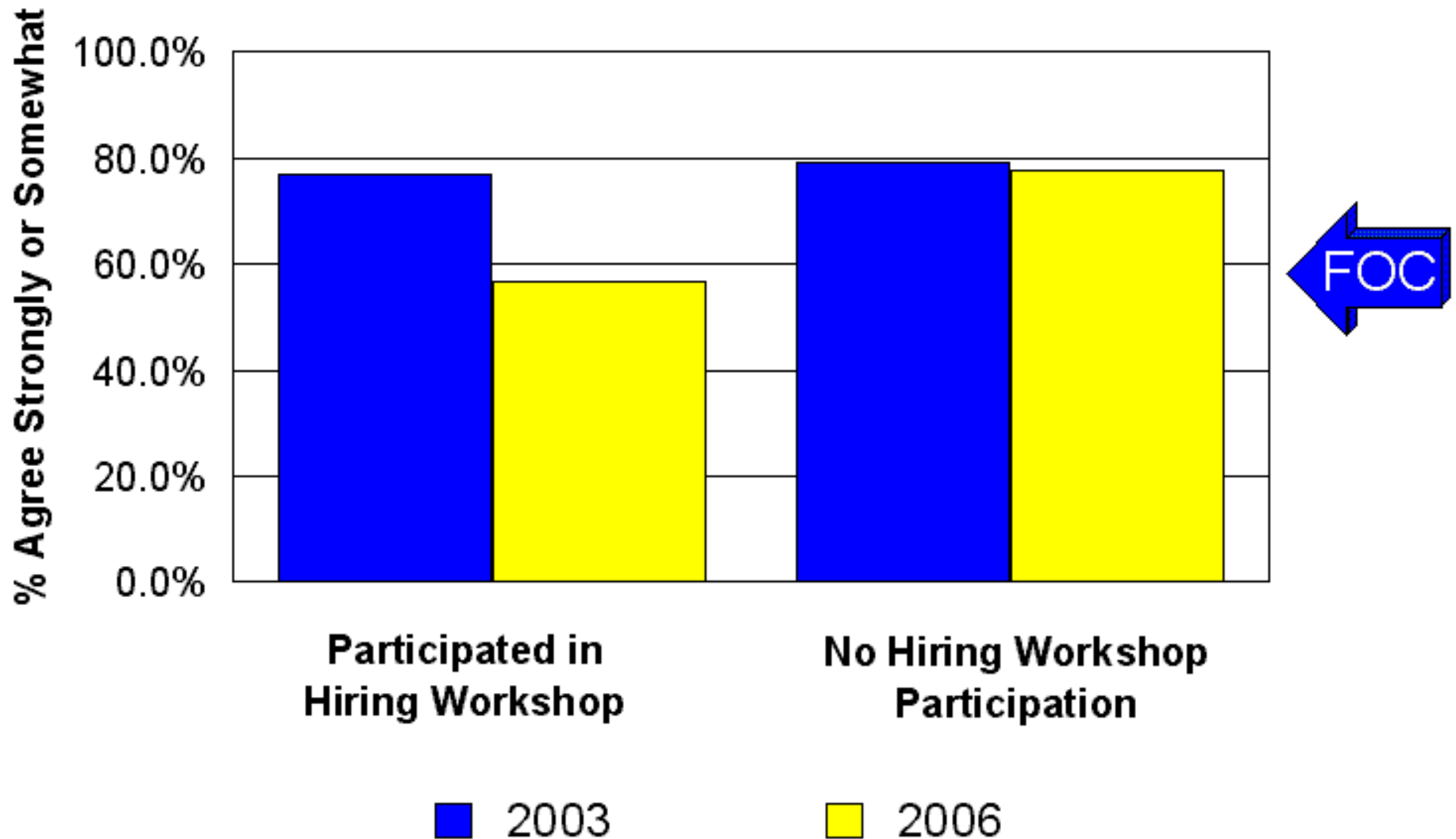
# The climate for faculty of color in my department is good



\* Significant t-test between minority and majority faculty at  $p < .05$ .

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

# The climate for faculty of color in my department is good





# Relevant Publications

- Sheridan, Jennifer; Eve Fine; Christine Maidl Pribbenow; Jo Handelsman; Molly Carnes. 2010. "[Searching for Excellence & Diversity: Increasing the Hiring of Women Faculty at One Academic Medical Center.](#)" *Academic Medicine*. 85(6):999-1007.
- Isaac, Carol; Barbara Lee; and Molly Carnes. 2009. "[Interventions that Affect Gender Bias in Hiring: A Systematic Review.](#)" *Academic Medicine*. 84(10):1440-1446.
- Sheridan, Jennifer; Eve Fine; Jessica Winchell; Christine Maidl Pribbenow; Molly Carnes; and Jo Handelsman. 2007. "[Searching for Excellence & Diversity: Does Training Faculty Search Committees Improve Hiring of Women?](#)" *American Society for Engineering Education (ASEE) 2007 Conference Proceedings*. June 2007.
- Sheridan, Jennifer; Christine Maidl Pribbenow; Eve Fine; Jo Handelsman; and Molly Carnes. 2007. "[Climate Change at the University of Wisconsin-Madison: What Changed, and Did ADVANCE Have an Impact?](#)" *Women in Engineering Programs & Advocates Network (WEPAN) 2007 Conference Proceedings*. June 2007.
- Eve Fine and Jo Handelsman. 2005. [Searching for Excellence and Diversity: A Guide for Search Committee Chairs.](#) University of Wisconsin-Madison.

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