

Title: Creating Great Scientific Workplaces for Men and Women: From Practice to Theory and Back Again

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Abstract: ***In this presentation Dr Fehr will discuss the results of ISU ADVANCE, a \$3.3 million National Science Foundation supported research project designed to test strategies for improving the recruitment, retention, and advancement of women and members of underrepresented minority groups in science, technology, engineering and mathematics. In particular, this talk will address barriers to, and strategies for, improving the work climate in scientific communities. These improvements benefit both men and women scientists and support research excellence.***

Creating Great Scientific Workplaces for Men and Women

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NSF ADVANCE

“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 contributing to the development of a more diverse science and engineering workforce.”

– <http://www.nsf.gov/crssprgm/advance/index.jsp>

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ISU ADVANCE

- Test a strategy for institutional change designed to improve the retention, promotion, and advancement of women and underrepresented minority STEM faculty.
 - \$3.3 million
 - 2006-2012

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ISU ADVANCE: My roles

- Researcher: qualitative analysis of climate, and of interventions to improve the climate, in particular departments.
- Trainer: teach campus leaders how to see gender and improve department climates
- Philosopher: uncover gender values and assumptions in the institution and explore how diversity impacts the creativity and objectivity of research.

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Barriers to women's success
Failure to recognize barriers
Recognition as the first step to change
Garnering universal benefits through gender equity

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**IT TAKES
EFFORT TO
KNOW ABOUT
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Barriers to women's career success

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- Lack of mentoring
- Isolation
- Work-life balance

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Failure to recognize barriers as gendered

- M1 – all assistant professors would cite these things [transparency, isolation, lack of mentoring, work-life balance] as barriers. (Not just women.)

Failure to recognize barriers as gendered

F3 – “It’s nice to hear that you are taking these steps [to increase mentoring]. I was told, in a sense, ‘If you look just like me [her mentor, a male faculty member] then you’ll be fine’.” Those are the things that we have to acknowledge. ...”

M2 – “I’m still not seeing this as a gender issue.”

F2 – “Women *ARE* seeing this.”

cont.

F5 “– Listening to everyone, it seems that some of the issues that women see as a problem, the men [here in the room] aren’t seeing the same way. **“So are we just saying that the women are just seeing things that aren’t there?”**”

M2 – “I’ve been misconstrued.”

F5 – “Okay, let’s talk about that.”

M2 – “I mean that **if** this is happening—the ambiguity, then it would be a problem for anyone it happened to. I don’t see that this is about *gender*.”

Seeing gender as a first step in creating change

- We know the barriers, it can be challenging to get people to see them and to act on them.
- It takes effort to notice places where gender both hides, and makes a difference, in our institutions.
- This is a place where philosophical work is useful.

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Garnering universal benefits through gender equity (M1 was right!)

- Barriers: Lack of transparency, Lack of mentoring, Isolation, Work-life balance
- M1 – all assistant professors would cite these things [transparency, isolation, lack of effective mentoring, work-life balance] as barriers. (Not just women.)

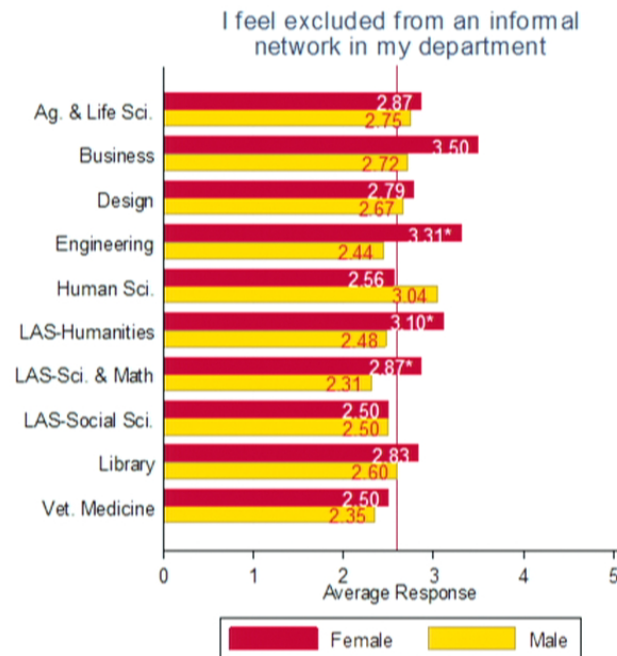
Women's perceptions
One department, many cultures
Ideal workers

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PLACES WHERE GENDER CAN HIDE AT WORK

Women may not perceive existing gender differences



Scale: 1 = Strongly disagree, 5 = Strongly agree
Red line = mean response for all faculty
Source: Iowa State University Institutional Research
(2008 AAUDE Faculty Satisfaction Survey)

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Women may not perceive gender differences

Some statistically significant differences that we found

- Stress managing work-life balance
- Have fewer children than they would like
- Social isolation at work

If women perceive gender differences there are many reasons for not speaking up

- Female: 'I just don't want to hurt his feelings.'
- Female: 'I lack the energy to say it one more time.'
- Reputation as trouble maker
- Keep your head down and do your work
- ...

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One department, many cultures

- Department X
 - Collegial and open, lots of collaboration and helping each other out
 - Closed and conservative, lack of social interactions
 - Operates like a competing collection of independent contractors

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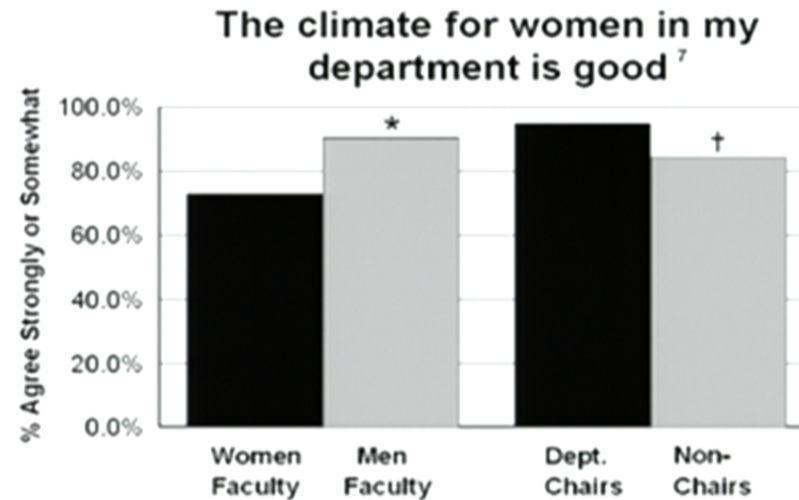
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One department, many cultures

- Relationship to barriers to women's success
 - Transparency
 - Mentoring
 - Isolation
 - Work life balance

Quantifying different perceptions of the same place



* Significant t-test between women and men faculty at $p < .01$.

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

Study of Faculty Worklife at the University of Wisconsin–Madison, 2003.

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Ideal worker

- Institution made for them
- Fit seamlessly within institutional culture
- Influences who institutions recruit, retain and promote
- An issue of who feels comfortable and who is supported by the work environment

Ideal Worker

- Prioritizes work over all other things
- Home life supports work life
- Can work unpredictable and long hours
- Able to travel for business
- Able to relocate for company/career

Creating Great Scientific Workplaces for Men and Women

Cultivating the ability to see the barriers and to see the wide range of ways that gender plays a role in our workplaces allows us to improve the career success, satisfaction and commitment of men and women in science and engineering.

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For concrete advice on perceiving and addressing common barriers go here:

- <http://www.advance.iastate.edu/>
 - Click on “Final Focal Department Synthesis Report”

Topics include: collegiality, hiring, promotion and tenure, mentoring, work life balance policies, teaching loads, and distribution of administrative and technical support.

Thank you

- Sharon Bird, Sandy Gahn, Heidi Grasswick, Margaret Holmgren, Katie Plaisance, Ana Prokos, Dave Saldana, Alison Wylie
- National Endowment for the Humanities Seminar on Feminist Epistemologies
- NSF Grant 0450821 (Any opinions, findings and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.)
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