NSF ADVANCE
Institutional Transformation Award at
UW-Madison
Setting the Stage:
Where to focus ADVANCE efforts?

- UW-Madison conceptualized as a “Living Laboratory” to be coordinated by a multidisciplinary research center (WISELI)
- Needs assessment during proposal development
  - Interviews with multiple stakeholders
  - Literature and document review
  - PI’s with local experience
- Town Hall meetings after award
- Life Cycle Research Grants
- Creating Space
- Celebrating Women in S&E Grants
- Conversion to tenure-track
- Awards and honors
- Endowed Professorships for Women in Science
- Leadership Development for academic staff

- Climate Workshops for Department Chairs
- Workshops for Search Committee Chairs
- Workshops on building effective research teams
- Senior women initiative
- Documentary Video
- Evaluate existing programs

- Resource Study
- Interviews with women faculty and staff in S&E
- Study of Faculty and Academic Staff Worklife at UW-Madison

- Discourse analysis of women’s communication strategies
- Ethnographic study of gendered interactions in the laboratory setting
- Study of Career Choices in Engineering
Three Themes in All Activities/Initiatives

- Use evidence-based approach to drive institutional change
  - Research focus has gotten the attention of faculty

- Foster individual behavioral change
  - Improvement of campus climate an important mission on a campus with all the “right” policies

- Ensure sustainability of the transformation
  - Partner with campus offices to institutionalize initiatives
  - Maintain WISELI as a driver of future research and to revise initiatives as needed to keep them current
  - Employ multiple methods for dissemination
Looking Back 3 Years: Successful Strategies

- Involving all stakeholders at all stages & in multiple formats ("the meeting is the tool of institutional change!")
  - e.g. Town Hall meetings, senior women faculty, multiple meetings at all levels (Deans, Schools, Depts., committees)

- Educating and infiltrating critical entry points
  - e.g. Hiring committees

- Keeping the focus on research
  - Present issues in a neutral way; don’t blame the men
  - Success in valued metrics: publications and professional presentations

- Empowering the women
  - Any way, any how! (educate, coach, advise, cheer!)
  - Selectively advocate for individual women
Looking Back 3 Years: Successful Strategies (continued)

- Bring the data back to the participants
- Match the messenger to the message
  - e.g. Engineering faculty present to College of Engineering
- Collaborate with other diversity efforts
  - Keep gender in the diversity discussions
  - Keep diversity in gender discussions
- Use a discovery-based approach to educate faculty
Percent Women Faculty, by Rank
Physical Science Departments

WISELI
Percent Women Faculty, by Rank
Biological Science Departments

<table>
<thead>
<tr>
<th>Year</th>
<th>Assistant</th>
<th>Associate</th>
<th>(Full)</th>
<th>Total</th>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>2003</td>
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WISELI
Women as Percentage of New Hires
Biological and Physical Sciences

% Women Hires

WISELI

% Women Hires

99-00 00-01 01-02 02-03 03-04 04-05

0% 10% 20% 30% 40% 50%

Untenured

Tenured

Total

Blue

Green

Black
% Women in Administrative Positions (Dept. Chair, Deans, Center Directors)

- 99-00: 9.0%
- 00-01: 9.0%
- 01-02: 6.0%
- 02-03: 6.0%

WISELI
% Female, Major UW-Madison Faculty Awards*

* Vilas Associate, Hilldale, Romnes, Kellett
Summary

- Gain and disseminate understanding about why it is so difficult to diversify academic leadership even when individuals and institutions are committed and well intentioned.
- Hit the issue from all angles so that people are “singing it in the shower!”
- Make WISELI endure to continue institutional research.
Life Cycle Research Grant Program
Life Cycle Research Grants

- Grants given to faculty whose personal crisis is affecting research at a critical career juncture

Goals:
- Recognize that life events outside of one’s control happen
  - Both men and women experience such events, but women are more likely to experience them early in the career, when they are more vulnerable
- Reduce turnover by providing research support for faculty in crisis
- Understand what events are problematic and which career junctures are most critical
- Understand what faculty need when they are in crisis
Implementation

- Pilot program ran Fall 2002 through Spring 2004
- Four rounds of applications, 14 applicants
- Seven awards
- Funding from both WISELI and the Graduate School
  - $215,000 in direct costs awarded
  - ~$30k/grant
## LCRG Awards, 2002-2004

<table>
<thead>
<tr>
<th>Application Deadline</th>
<th># of Apps</th>
<th># of Awards</th>
<th>Grantees</th>
<th>Grantees’ Circumstances</th>
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<tbody>
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<td>11/29/02</td>
<td>2</td>
<td>2</td>
<td>1 female Assistant Professor</td>
<td>- Sick child, new baby, new hire</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1 male Professor</td>
<td>- Major surgery</td>
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<tr>
<td>3/31/03</td>
<td>6</td>
<td>2</td>
<td>1 female Asst. Prof</td>
<td>- Spousal care, care of child</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1 female Associate Professor</td>
<td>- Major illness</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/31/04</td>
<td>6</td>
<td>3</td>
<td>1 female Assistant Professor</td>
<td>- Care of child, change in marital status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 female Associate Professor</td>
<td>- Change in marital status, department change, care of child</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 female Assistant Professor</td>
<td>- Care for dying parent and two young children</td>
</tr>
</tbody>
</table>
Evaluation

Formative evaluation: Adjusted Call for Proposals, refined selection criteria

Summative evaluation:

- Purpose: provide information about the impact of the program on the recipients of the grants.
- Focused on years 1-2
  - In-depth interviews with 4 recipients
  - Follow-up emails and calls
- Five main themes emerged
Life Cycle Research Grants

- Evaluation (continued)
  - The only grant based on personal need, not professional merit
  - Came at a critical juncture in their personal and professional lives
  - Provided psychological support
  - Had impact on others’ lives, as well
  - Is an investment in the grantees’ futures and the University’s
Life Cycle Research Grants

- Evaluation (continued)
  - Productivity attributed to the Life Cycle Research Grant (first four recipients only):
    - 13 papers
    - 7 presentations
    - 8 grant proposals for over $6 million (with $2.5 million pending)
Life Cycle Research Grants

Evaluation (continued)

- Small investment led to significant outcomes, both qualitative and quantitative
- The interviewees identified NO negative impacts from receiving the grant
- All are completely supportive of the program
- Significantly impacted their professional progress, ability to function personally, and decision to stay at the University
Life Cycle Research Grants

- **Dissemination**
  - 2 presentations
  - To be featured in WISELI documentary video

- **Sustainability**
  - To be offered as a faculty program available through the Provost’s Office
  - Funding currently supplied through partnership of Provost and Graduate School
    - Seeking long-term funding from Vilas Trust, the Women in Philanthropy Council, and the UW Foundation
Celebrating Women in Science and Engineering
Grant Program
Celebrating WISE Grant Program

Description

- Small-grants program, open to departments, centers, or student groups, to fund outside speakers for events in line with the goal of promoting the participation and advancement of women in science and engineering.
Celebrating WISE Grant Program

**Goals:**
- Highlight and celebrate the scientific work of WISE
- Increase the visibility of WISE
- Encourage departments and centers to routinely include WISE in their seminars/symposia/colloquia
- Provide role-models and foster networking for women graduate students and junior faculty
- Increase awareness of issues of WISE
Celebrating WISE Grant Program

- Implementation
  - Three rounds of applications, 22 applicants
  - 19 awards
  - Funding frequently matched or supplemented by department or other sources
    - Approx. $28,600 awarded by WISELI
# Celebrating WISE Awards

<table>
<thead>
<tr>
<th>Biological Sciences</th>
<th>Engineering</th>
<th>Physical Sciences</th>
<th>Other</th>
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<tr>
<td>Comp. Biosciences</td>
<td>Biomedical</td>
<td>Atmospheric &amp; Oceanic Sciences</td>
<td>Graduate Women in Science</td>
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<tr>
<td>Dairy Science</td>
<td>Chemical &amp; Biological</td>
<td>Chemistry</td>
<td>Committee on Women in the University &amp; the Women Faculty Mentoring Program</td>
</tr>
<tr>
<td>Forest Ecology &amp; Management</td>
<td>Civil &amp; Environmental</td>
<td>Computer Sciences</td>
<td></td>
</tr>
<tr>
<td>Medical Microbiology</td>
<td>Engineering Learning Center</td>
<td>Physics</td>
<td></td>
</tr>
<tr>
<td>Neuroscience</td>
<td></td>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td>Nutritional Sciences</td>
<td></td>
<td>Women in Computer Science</td>
<td></td>
</tr>
<tr>
<td>Population Health Sciences</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- Comp. Biosciences
- Dairy Science
- Forest Ecology & Management
- Medical Microbiology
- Neuroscience
- Nutritional Sciences
- Population Health Sciences
- Biomedical
- Chemical & Biological
- Civil & Environmental
- Engineering Learning Center
- Atmospheric & Oceanic Sciences
- Chemistry
- Computer Sciences
- Physics
- Statistics
- Women in Computer Science
- Graduate Women in Science
- Committee on Women in the University & the Women Faculty Mentoring Program
Celebrating WISE Awards

Implementation

- Typically brought prominent women scientists. Activities included:
  - Research presentations in department seminar series, symposia, or colloquia
  - Small group luncheons or dinners with women graduate students and/or junior faculty members
  - Presented a lecture in one or more classes
  - Individual meetings with graduate students, faculty members, and post-doctoral scholars
Celebrating WISE Awards

- Implementation
  - Other types of programs included:
    - Career panel of women scientists
    - Conversations with CEO of MentorNET
    - Visit and research presentation by Virginia Valian
    - Upcoming workshop for women in science on “using the art of persuasion”
Celebrating WISE Grant Program

Evaluation

- **Number and types of interaction with participants**
  - Large numbers: Lectures attendance averaged 44 people
  - Wide variety of participants: men and women undergraduates, graduate students, post-doctoral fellows, and assistant to full professors
  - Large number of one-on-one or small group meetings with women graduate students and faculty – one visitor met individually with 11 people
Celebrating WISE Grant Program

- Evaluation (continued)
  - **Participant reactions:** Overwhelmingly positive
    - **Interesting** - “lively discussion,” “wonderful insight,” “among the best seminars I ever attended”
    - **Encouraging** - “provided direction for future plans,” “good suggestions on pursuing science & engineering careers”
    - **Inspirational** - “supplied an example of success,” “sparked interest in a new research area or career choice”
    - **Informative** - “learned new information,” “gained insight into a scientific problem,” “learned about a new technique“
Celebrating WISE Grant Program

Evaluation (continued)

- Contribution to goal of advancing women in science and engineering
  - Provided role models
  - Addressed concerns about balancing family and career
  - Discussed climate challenges women face in science and engineering
  - Provided research support
  - Fostered networking opportunities and mentoring
Celebrating WISE Grant Program

Evaluation (continued)

- **PI analysis: On-campus empowering**

  Of 22 applicants for grants:
  - 7 Asst. Professors (5 female)
  - 7 graduate students (all female)
  - 1 scientist track Academic Staff
  - 7 Professors (3 female)
Workshops for Search Committee Chairs
Workshops for Search Committee Chairs

- Development
  - Design committee included:
    - Office of the Provost
    - Office of Quality Improvement
    - Department of Physics
    - College of Engineering
    - Office of Human Resources
    - WISELI
  - Piloted in Summer 2003
Workshops for Search Committee Chairs

- Use a peer-teaching model to effect behavior change
  - Run an effective and efficient search committee
  - Recruit an excellent and diverse pool of candidates
  - Raise awareness of unconscious assumptions and their influence on evaluation of candidates
  - Ensure a fair and thorough review of candidates
  - Develop and implement an effective interview process
Workshops for Search Committee Chairs

- **Implementation**
  - Offered to all campus search chairs in collaboration with Office of the Provost
  - Deans encourage all search chairs to take this workshop/workshop series
  - Flexible implementation of workshops within each school/college
    - 3-session workshop
    - Special 1-session workshop designed specifically for an individual school/college
    - A 1-session discussion-oriented workshop comprised of faculty from all campus divisions
Workshops for Search Committee Chairs

Results

- Guidebook, “Searching for Excellence & Diversity: A Guide for Faculty Search Committee Chairs” developed
- Brochure, “Reviewing Applicants: Research on Bias and Assumptions” developed as a result of pilot workshop
- 13 separate workshop sessions have been run, with 70 people trained
Climate Workshops for Department Chairs
Climate Workshops for Department Chairs

- Rationale for Department Chair Training
  - Interviews
  - Surveys
*Gender difference significant difference at p<.05.
^Significant difference between dept. chairs and all other faculty (p<.05).
Climate Workshops for Department Chairs

Development

- Design committee included:
  - Office of the Provost
  - Office of Quality Improvement
  - Department of Physics
  - College of Engineering
  - Employee Assistance
  - Medical School Ombudsperson
  - Non-Represented Classified Staff
  - WISELI

- Piloted in Fall 2003
Climate Workshops for Department Chairs

- Use a peer-teaching model to effect behavioral change
  - Understand what climate is and how it manifests in their own departments
  - Understand the importance of the chair in creating departmental climate
  - Implement a department-level climate survey and provide chairs with a confidential report of results
  - Brainstorm to design strategies to address climate issues
  - Implement interventions in their departments
  - Develop a network of chairs
Climate Workshops for Department Chairs

Results

- 15 department chairs have completed or are in process of completing the 3-part series
- Departmental-level climate survey has been sent to approximately 2,000 faculty, staff and students
  - Response rate averages 52% (range 30% to 75%)
- Developed a resource book for department chairs
WISELI
Women in Science & Engineering Leadership Institute
University of Wisconsin-Madison