Women are . . .

- 22% of science & engineering workforce
- < 20% of S&E faculty in 4-year institutions
- 2% of S&E faculty if minority

At URI, women are . . .

- 16% (N=37) of full-time, ranked STEM faculty

Why aren't there more women in science?

- Pipeline problem (not enough women entering fields)
- Child care problem (cannot find adequate time)
- Values problem (unwilling to focus solely on career)
- Acculturation problem (lack knowledge about how to succeed)
- Gender schemas (stereotypes about appropriate roles)
- Accumulation of disadvantage (minor setbacks & acts of subtle discrimination add up over time)

As summarized by Virginia Valian, PhD, Psychologist at CUNY Hunter College, and author of Why So Slow: The Advancement of Women

Research shows:

- Fewer interactions/collaborations with faculty
- Lower salaries
- Fewer resources
- Heavier teaching loads
- Less mentoring
- Less job satisfaction
- More work/life conflicts
- Reports of isolation, alienation, exclusion
Lack of women’s full participation at senior levels is a systemic consequence of academic culture. [What is needed is the] creation of positive, sustainable, and permanent change in academic climates.

- $4.2 million, 5-year programs to promote the careers of women in academic science
- 19 institutions to date, more to come, each with unique programs sharing common goals

**Common Goals**
- Recruitment
- Career Development
- Policy and Practices Review
- Climate Change
- Assessment

**URI Goals**
- Faculty Fellows Program Supplemental Funding
- Workshops Incentive Awards Mentor Training
- Family Leave Policy Dual Career Couples Best Recruitment Practices
- Department Climate Workshops Faculty Liaison Program
- Climate Survey/Pro-Change Focus Groups

**Steps to Climate Change**
1. Staging assessment *(part of climate survey)*
2. Schedule workshops and follow-ups, using *Transtheoretical Model* strategies
3. Distill to 4-5 common themes
4. Summit meeting with Administration

**Transtheoretical Model**
Organizational and individual behavior change occurs in stages over time

**Stages of Readiness**
- Precontemplation (no plan)
- Contemplation (might consider possibility)
- Preparation (ready to take initial steps)
- Action (overtly engaging in behavior change)
- Maintenance (sustained change over time)
Principles of the TTM

- Decisional Balance
  - Change more likely when the perceived advantages of change outweigh perceived disadvantages (pros vs. cons)
- Self-Efficacy
  - Change more likely when there is greater perceived ability to engage in specific behavior successfully
- Processes of Change
  - Movement through stages facilitated by 10 cognitive and behavioral strategies

4 Key Behaviors

- Creating Opportunities for Collaboration
  - Introducing new women faculty to other faculty on and off campus
  - Inviting women faculty to collaborate on projects
  - Facilitating students to work with women faculty
- Enhancing Competency through Mentoring
  - Teaching about funding mechanisms
  - Explaining the communication channels and network structure of university offices
  - Offering guidance on how to publish

4 Key Behaviors

- Providing Resources for Doing Research
  - Sharing data sets
  - Sharing equipment facilities
  - Writing women faculty in on grant proposals
- Generating Support through Community
  - Including women faculty in social activities
  - Encouraging social activities for the department
  - Being available to offer help and advice to new women faculty

How Ready are URI Faculty to ADVANCE Women Scientists?

- STEM Faculty (N = 138)
- 73.7% Men & 26.3% Women
- Mean Age = 51.31
- Are you taking these 4 steps to advance women scientists at URI?
  - NO, and I don’t intend to in the next 6 months
  - NO, but I intend to in the next 6 months
  - NO, but I intend to in the next 30 days
  - YES, I have been, but for less than 6 months
  - YES, I have been for more than 6 months
Stage of Change

- 8.5% PC (no plan)
- 10.8% C/PR (considering possibility/ready to begin)
- 80.8% A/M (taking action)

4 Key Behaviors by Stage of Change

- Faculty in later stages of readiness more likely to do the behaviors

**TTM Constructs**

- Men rated fewer cons of advancing women scientists than women

**Departmental Climate Workshops**

- **Appreciative Inquiry Workshop Format:**
  - "The process of studying a phenomenon changes it; organizations grow in direction they ask questions about and focus attention on"

- Applying strategies in TTM:
  - Movement through stages facilitated by 10 processes of change:
    - Consciousness raising
    - Dramatic relief
    - Environmental and self reevaluation
    - Social and self liberation
    - Reinforcement management
    - Counter-conditioning
    - Helping relationships
    - Stimulus control
Feedback

- “The most valuable aspect of this workshop was . . .”

  **Facing the issues**
  - “Bringing up ‘real’ issues and being able to discuss them openly”
  - “Increased awareness of issues surrounding work environment of junior faculty”
  - “Awareness of some previous problems associated with our work environment”
  - “Should have done this a long time ago”

  **Connecting with colleagues**
  - “Learning that other faculty in the department share the same concerns”
  - “Initiating what may have been missing: social interaction”
  - “Group decision making and developing action lists”
  - “Chance to talk to colleagues about key values and unusual topics”

- Average evaluation: 8.6 out of 10

Key Ingredients for Success

- Endorsement from the top
- Focus on benefits to everyone
- Avoid blaming
- Include at least 3-5 women in workshops
- Follow-up quickly with feedback
- Identify responsible parties for action steps
- Make part of larger picture
- Collaborate with other campus groups