

## Strategies for Career Success of Women Science Faculty: The ADVANCE Program at the University of Rhode Island

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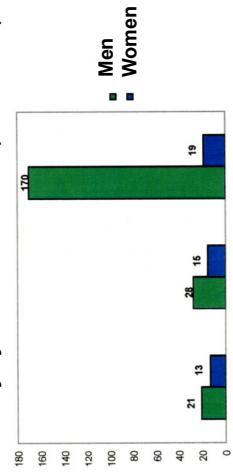


## ADVANCE Institutional Transformation Program at the University of Rhode Island

- 5-yr NSF award (2003 - 2008)
- Goals
  - To increase the recruitment and retention of women faculty in science, technology, engineering, and math (STEM) disciplines
  - To improve the work environment for all faculty
  - To contribute to the national goal of creating a broad-based scientific workforce

## At the start of the program...

STEM Faculty by Gender and Rank (2004 - 2005)



Women earned about 50% of PhDs  
But, only 14% of STEM faculty were women

In Oceanography, only 4 of 36 faculty (11%) were women

## ADVANCE Components

*University of Rhode Island*

- Evaluation and assessment of the status of women STEM faculty
- Faculty recruitment
- Faculty career development
- Changes in university policies
- Work climate change and sustainability

## Evaluation and Assessment Survey

- University-wide survey
  - Designed and analyzed by team of psychologists, sociologists, and outside consultants (*expertise in survey methodology, statistics, gender issues, and organizational change*)
  - Distributed to ~700 faculty, all departments (40% return)
- Survey measurement categories
  - Background (*gender, rank, tenure, start-up*)
  - Interpersonal (*support, attitudes, balance, children, partners*)
  - Work Environment (*satisfaction, leadership, discrimination, equity*)
  - Resources / Contributions (*equipment, recognition, productivity*)
  - Readiness for Change

## Some 2004 Survey Highlights: Status of Women STEM Faculty at URI

### Women vs. Men

Resource allocation, productivity, recognition	$W = M$
Interpersonal support from colleagues	$W < M$
Discrimination in department	$W > M$
Consider not having children	$W > M$
Consider leaving job for partner's job	$W > M$
Support concept of women's success at both career and family	$W > M$
Support concept of differentiated gender roles (man earns income, woman nurtures family)	$W < M$
Career satisfaction	$W < M$

Oceanography was similar to other STEM departments in these variables.

## Strategies for Success

- BIG financial incentive and open positions created competition among departments for Fellows
- Prestigious position and NSF funding attracted outstanding applicants
- Strong top administrative support was critical

## Faculty Recruitment: ADVANCE Fellow / Assistant Research Professor

- Unique prestigious position with faculty status
  - New hire spends first 2 - 3 years developing research
  - Reduced teaching and service
  - Salary and (partial) startup costs paid by ADVANCE
  - At end, Fellow transitions seamlessly to regular state-supported tenure-track slot
- In 2 years, 10 new women STEM faculty were hired with full or partial ADVANCE support.

## Faculty Recruitment in Oceanography Search Process

- Initial plan: 1 ADVANCE Fellow, subject area open
- Faculty-style search committee
  - Members from each disciplinary group
    - ADVANCE member from another department, no conflict of interest**
    - ADVANCE provided best practices search advice, interview funding, and point of contact for applicants to speak confidentially on work-life flexibility and startup strategies.
  - Competition among different oceanographic disciplines** (after some initial reluctance)
  - > 50 applicants, 9 interviewees,
  - Focus on scientific credentials, not gender

## Faculty Recruitment in Oceanography: 5 New Women Faculty!

- 4 women faculty hired in Oceanography (1 in each discipline) from ADVANCE search
  - 1 woman oceanographer hired in Cell and Molecular Biology from another ADVANCE search (joint appointment with Oceanography)
  - Excellent start-up packages:** resources leveraged from ADVANCE, Deans, and University
    - Dual career issues dealt with positively
    - High quality lab and office space provided

 <p><b>Dr. Rebecca Robinson</b> Chemical Oceanography</p>  <p><b>Dr. Kathleen Donohue</b> Physical Oceanography</p>  <p><b>Dr. Bethany Jenkins</b> Molecular Biology</p>	 <p><b>Dr. Tatiana Rynearson</b> Biological Oceanography</p>  <p><b>Dr. Katherine Kelley</b> Marine Geology</p>
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- Critical mass of junior women faculty in Oceanography**
- Close-knit cohort** at the same stage of career and personal life

New faculty members have arrived...

Present focus of ADVANCE:

- **Career development and retention**
  - Training, networking, small grants
  - ADVANCE-facilitated interfacing between new faculty and Chairs / Deans
- **Long-term improvement in work climate**

- Faculty productivity and retention increase if a university
  - values **inclusion**
  - provides **leadership and skills training**
  - ensures **flexibility in balancing work-life situations**
- There is a real financial cost when a faculty member leaves

## Mentoring Workshops

- **Mentors (experienced faculty) and “mentees” (new faculty)**
  - Women and men, initially from STEM disciplines
  - Presentations, panels, small group discussions, case studies
  - Brochures with best practices suggestions
- **Emphasis by top administrators of importance of mentoring**

- **Mentoring is a normal and beneficial tool** for career development at all levels (not “remedial”)
  - Mentors now provided for all new faculty: one from within the department, one from outside
- **Good mentoring should be rewarded**
  - New language for promotion and tenure guidelines

## Career Development Workshops

- Grant Writing (with URI Research Office)
  - *Securing Funding*
  - *Collaborative Proposals*
- Negotiation Skills
- Effective Teaching (with Instructional Development Program)
- Post-Awards Grant Management
- Monthly Writing Workshops



## ADVANCE Incentive Fund

- Annual \$40,000 **competitive award program**
- Jointly funded by ADVANCE and Provost's office
- Small grants for research by STEM women faculty or for activities by anyone that promote ADVANCE goals
  - **15 projects supported 2004 - 2005, next competition underway**

## Networking and Social Opportunities: Monthly Topical Lunches

- **Casual lunch series** for STEM women faculty
  - Panelists and group discussion: teaching, research, balancing career and personal life
  - Some recent topics
    - Thinking about tenure from the start*
    - Gender-sensitive teaching*
    - Dual career issues*
    - Work-work and home-work*
    - Didn't I just say that?: How to be heard*

## Leadership Training for Chairs

- Organized by Provost, ADVANCE, and John Hazen White Sr. Center for Ethics and Public Service
  - Topical lunch discussions
    - Promote excellence in leadership
    - Develop specific suggestions for promoting retention of new faculty

## Changes in University Policies: Paid Parental Leave

- **6 weeks paid leave for new mothers and fathers**
  - Developed by collaboration between ADVANCE and President's Commission on the Status of Women
  - Incorporated into latest union contract (with support from both faculty and administration)
- **So far, 11 faculty members (including several men) have taken advantage of this policy**
  - There appears to be an increase in the number of women STEM faculty having children before tenure

This is a clear demonstration to the university community that gender equity benefits both men and women.

**Pro-active Chairs / Deans provide essential leadership to** ensure that new faculty members are welcomed and encouraged, receive the negotiated lab space and startup items in a timely manner, and are treated fairly in departmental assignments and resource allocation.

## Dissemination throughout the University and Community

- **Public seminars by nationally-known speakers on women in science issues**
- ADVANCE presentations at a community business networking forum
- ADVANCE members featured in local public **TV program: Amazing Women of Rhode Island**
  - Publicity in news media
  - Consultation with other local and regional institutions and national ADVANCE network
  - Professional publications and presentations about ADVANCE
  - Scientific publications and talks by ADVANCE Fellows

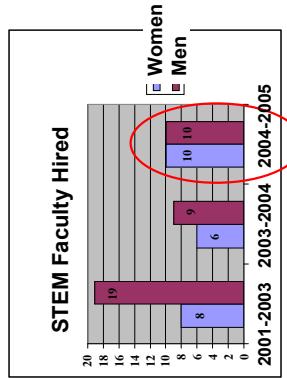
## Changing the Work Climate: Long-Term Sustainability

- ADVANCE and facilitator-led **departmental climate workshops** to help STEM departments identify strengths, set strategic goals, and improve departmental dynamics
- Integrated with **theoretical models of organizational change**
  - Appreciative Inquiry: emphasis on how all faculty can benefit from analysis of what contributes to an excellent work environment
  - Transtheoretical Model: system of matching change strategies to defined levels of readiness for change

**Initial incentive for departmental participation:** expectation of a Faculty Fellow

## Major Achievements of ADVANCE: A Synthesis of Efforts

- New women STEM faculty hired (50% of hires)
- More open responsiveness to work-life balance
- Paid family leave
- Strong mentoring and training programs for all STEM faculty
- Improved work environment for all faculty



## Lessons Learned: Essential Strategies

- Top-down administrative support
  - Financial and hiring incentives to jumpstart the process.
    - Competition among departments
  - University policies, training, and communication that actively support junior faculty and recognize the importance of **work-life balance**
    - “Best practices” in searches, a prestigious appointment, and positive startup negotiations
    - Recognition of senior faculty (men and women) who actively promote the success of junior faculty
  - Ultimately, the accomplishments and energy of a **critical mass** of **junior women STEM faculty** will provide the strong intrinsic rationale for sustaining these efforts.