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

Karen Wishner, Barbara Silver,
Faye Boudreaux-Bartels, Lisa Harlow,
Helen Mederer, Lynn Pasquerella,
Joan Peckham, Cathy Roheim, Judith Swift

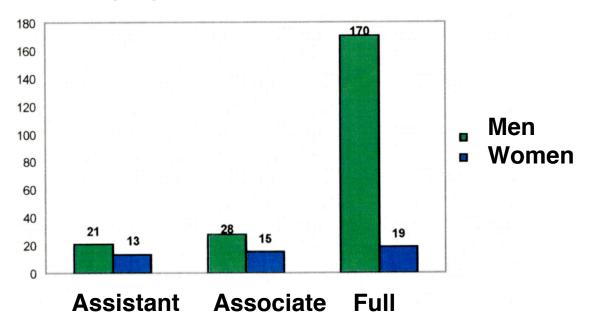


ADVANCE Institutional Transformation Program at the University of Rhode Island

- 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



- 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	NA /
family	W < M
Career satisfaction	W < M

Oceanography was similar to other STEM departments in these variables.

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 statesupported tenure-track slot
- In 2 years, 10 new women STEM faculty were hired with full or partial ADVANCE support.

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 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

- Critical mass of junior women faculty in Oceanography
- Close-knit cohort at the same stage of career and personal life

Dr. Kathleen Donohue Physical Oceanography



Dr. Rebecca Robinson Chemical Oceanography



Dr. Bethany Jenkins Molecular Biology



Dr. Tatiana Rynearson Biological Oceanography

Dr. Katharine Kelley Marine Geology

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

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.

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.

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
 - <u>Transtheoretical Model</u>: system of matching change strategies to defined levels of readiness for change

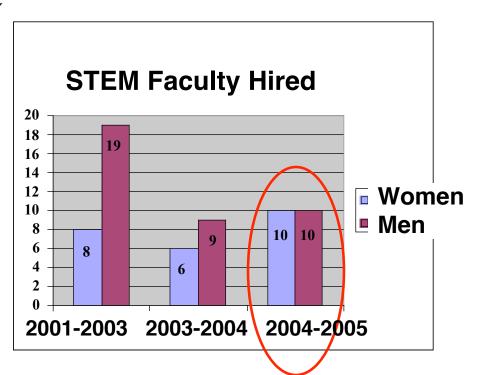
Initial incentive for departmental participation: expectation of a Faculty Fellow

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

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.



www.uri.edu/advance