

UNIVERSITY OF NEVADA-RENO

WOMEN IN SCIENCE AND ENGINEERING (WISE) FACULTY PARTICIPANTS IN THE ASSOCIATION FOR WOMEN IN SCIENCE CAREER DEVELOPMENT SURVEY

Summary of Survey Results from Summer 2003

NOTEWORTHY FINDINGS AND OBSERVATIONS

Participant Demographics

- Seventeen women faculty members out of a total of 24 in science and engineering participated in the Association for Women in Science career development survey.
- Five Colleges/Schools were represented*:
 - Medicine (N = 4; 23.6%)
 - Arts & Sciences (N = 4; 23.6%)
 - College of Agriculture, Biotechnology, & Natural Resources Agriculture (N = 3; 17.6%)
 - Engineering (N = 3; 17.6%)
 - Mines (N = 3; 17.6%)

*Departments when identified included: Biochemistry, Biology, Chemistry, Electrical Engineering, Civil Engineering, Environment & Resource Science, Geography, Geology, Microbiology, Pharmacology, Physics, and Physiology & Cell Biology

- Most of the women faculty were White (71%); about 23% were other ethnicities. One participant (6%) did not indicate race/ethnicity.
- The majority of participants had children (59%) and 70% of those with children were the primary caregiver.

Current Appointment

- Faculty were tenured (12%) or were in a tenure-track position (88%). For the majority of participants (77%), the current position was their first full-time appointment.
- A majority (59%) completed a post-doctoral fellowship before attaining their current position. The post-doc was a requirement for 60% of those who completed it. Another 20% of those who completed a post-doc reported that it was strongly recommended. However, about 20% who had done a post-doc said that the importance of a post-doc was not emphasized during their graduate training.
- Most participants (94%) currently served on departmental or university committees (Mean = 4.5 committees).

- Self-rankings of participants' professional stature indicated that 29% placed themselves as being in the top 10% compared to other faculty in their department; 18% placed themselves in the top 25%; 35% indicated that they were about average; and 6% placed herself in the bottom 25%.

Work Environment

- Across four of the five schools/colleges represented (Arts & Sciences, Medicine, Mines, CABNR, and Engineering), almost all junior faculty indicated that senior faculty had only helped them moderately to very little in terms of recommending them for five types of important career activities, including review panel participation, as invited speakers, or for study sessions, awards, or conference participation (\underline{M} =2.5 to 5.0; 5-point scale, 5=not at all helpful). However, faculty in Arts and Sciences and Medicine reported receiving somewhat more help from colleagues than those in Mines, CABNR and Engineering. This suggests that there may not be an ongoing communication process between senior faculty and junior women faculty. Additionally, this suggests that junior faculty may need to take bolder steps in forming networks with senior faculty.
- Senior faculty were rated as being moderately helpful in terms of providing advice and guidance to junior women faculty concerning grant opportunities, promotion procedures, committee service, and teaching requirements (\underline{M} =2.7 to 3.0; 5-point scale, 5=not at all).
- Relationships with other faculty in the department were rated positively overall. Participants described other faculty as being friendly, easy to discuss ideas with, respectful of their opinion, valuing them as an individual, providing positive suggestions, and treating them as a colleague (M = 1.7 to 2.3, 5-point scale, 1=very much; 5=not at all). In addition, other faculty in the departments were described as being not very competitive (\underline{M} =4.0, 5-point scale, 5=not at all).

Collaborative Research at UNR

- Research at UNR is conducted frequently in groups, with 47% of participants reporting that they did research in groups only. Of the 53% that worked alone, about 37% said that working alone was always by choice. Participants reported that they worked with other scientists (57%) more often than they did with graduate students (43%).
- When working with other scientists, participants reported that it was a positive experience and indicated that other scientists in their group were easy to discuss ideas with, treated them as colleagues, encouraged teamwork, and provided constructive criticism of their research (\underline{M} = 1.1 to 1.4; 5-point scale, 1 = very much, 5=not at all).
- Most faculty reported that the space allotted for laboratory work was plentiful (13%) or sufficient (62%). However, a few indicated that it was insufficient (19%) or extremely insufficient (6%).

Evaluation of Various Aspects of Own Career

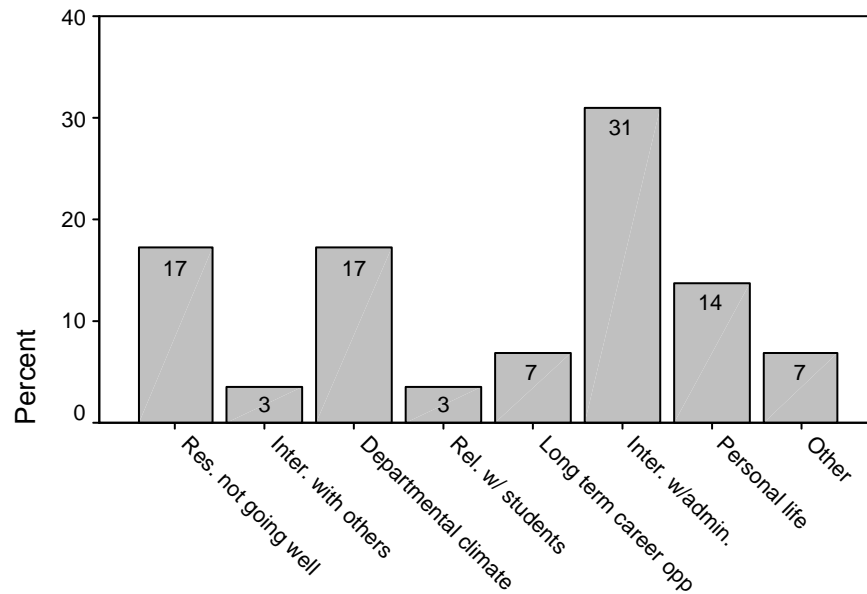
- All participants indicated that they expected to continue as a professional in their field either definitely (71%) or probably (29%).
- In response to an open-ended question about what participants expected to have as a primary activity as a professional in their field, four named “doing both research and teaching” and four named “teaching.”
- In terms of the significance of eight factors in deciding whether to stay or leave the academic community, participants indicated that changes in opportunities for partner/spouse and isolation/lack of departmental support would be “very” important (\bar{M} =1.7 and 1.0; 5-point scale, 1=very important; 5 = not at all important). An increase in child care responsibilities and discrimination in the workplace were rated as likely to be “somewhat important” in deciding to stay in academe. Household responsibilities, salary, heavy teaching demands, and other time pressures were evaluated as being “moderately” important.
- Participants rated their skills as researchers and teachers fairly highly, with mean scores of 1.8 and 2.4, respectively, on a 1-5 scale (1=very much). Participants reported having fairly good access to equipment that allowed them to be a good researchers and teachers (\bar{M} = 2.5 and 2.1, respectively).

Department Environment

- Overall, participants’ departments were considered positive environments in terms of ratings of colleagues as being friendly and encouraging self-confidence, as well as being nonthreatening and somewhat flexible.
- Institutional policies in nine areas were assessed, including policies concerning types of appointments, promotion requirements, criteria for evaluation, departmental services requirements, community service requirements, extended tenure clock, maternity/parental leave, child care, and dual opportunities. All survey participants declared that they were “somewhat” familiar with their university’s written tenure and promotion policies and most indicated that the policies were somewhat effective. Policies in other areas also were considered to be moderately effective. However, many institutions did not have policies concerning some areas that were particularly relevant to women, including extending the tenure clock (29%), maternity leave (29%), child care (53%), and dual career opportunities (59%).
- All participants reported that an effective evaluation process existed within their department, such as an annual review process. However, formal mentoring programs and an affirmative action officer were among the evaluation programs that were rated as less effective or available.
- Department involvement in promoting scientists’ careers along eight dimensions was moderate, with a 2.3 mean score overall on a 1-5 scale (5=Not at all). Areas that were

particularly strong across schools/colleges include organizing courses and advising students. Helping faculty to identify grant sources and prepare & write grants appeared to be areas that need strengthening within all schools/colleges, but particularly within A&S and Medicine.

- Of seven activities for departmental faculty, most participants (77%) reported that lectures were available to everyone at UNR; however, few (6%) indicated that there were lectures available for faculty only. Overall, academic-related activities such as lectures, professional social meetings, and receptions were the more prevalent type of activities available. Other unspecified activities were reportedly available to all faculty only (82%). Parties and luncheons were less often available for everyone (35% and 29%, respectively) or for faculty specifically (12%). This suggests that there may not be sufficient organization of social, non-academic related events planned for the faculty by the different schools/colleges.
- Reasons for feeling discouraged were identified by some participants.



- Thirty-one percent of faculty reported that their interaction with the administration was a major reason for feeling discouraged, indicating that some faculty did not feel that administrators were approachable. If the interaction with administrators is weak, faculty may not feel motivated to approach department chairs or deans about better equipment or lab space. This may be directly related to some faculty being frustrated with their research not going well (17%), and a feeling of negativity within some departments (17%). Other reasons for feeling discouraged included salary and long-term career opportunities (7%), interaction with others (3%), relationships with students (3%), and other unspecified reasons (7%).

Comments about feeling discouraged:

- Salary and merit are insufficient.
- No chance to move up unless into administration.
- There is no support by my chair for helping me try for promotion to full professor.

- Changes that could be made to improve the environment were addressed by responses to an open-ended question. Four areas for improvement were identified, including (a) desired changes in administration and leadership, specifically, better leadership; (b) improvement in equity and climate issues; (c) changes in attitudes and policies concerning family issues, and (d) an increase in resources and skills.

Comments about desired changes in administration and leadership:

- Administration support and encouragement to change the atmosphere.
- A new chair from outside the university.
- A new dean from outside the university with concern about faculty matters
- “Good ole boys” club needs to be disbanded
- We need new leaders at the chair and dean level who come from outside the university and know how to create a stimulating, equitable environment (not competitive, destructive ones currently in place that work against the “loners” in the department)

Comments about equity and climate issues:

- Salary equity.
- Merit for service male faculty members are not interested in or capable of performing.
- More cohesion in faculty unit (too much indifference; we work in a vacuum)
- To work better as a team toward departmental goals.
- Reduced workload.
- Disband the “good ole boys” club.

Comments about desired changes in attitudes and policies concerning family issues:

- Support offered to faculty with children (it may be limited)
- More family friendly (No commitment to provide either onsite childcare or opportunities for spouses/partners to work at same campus.)
- The most significant factor that has affected my career is becoming a mother. It has also hampered my husband’s career. We are at a significant disadvantage to colleagues who have a “wife” to take care of groceries, laundry, child care, etc. This is not discussed in this survey anywhere. I worked in the private sector before starting my academic career. I had my child during that time. My responses on this definitely would not be so positive if I had had my child at the same time I was working on tenure. It significantly impacted my research for several years.
- Another significant problem is the “two body” problem – finding two satisfying, equal jobs for both my husband and myself. We were very lucky. Most couples are not. Also not discussed in survey.

Comments regarding increases in resources and skills:

- Access to more postdoctoral fellows.
- Guidance in how to manage a lab. Non-formal training in how to handle people. Only trained to do research.

- Formalize help in writing grants and papers. People to read and critique before submission.

In conclusion, the seventeen Women in Science and Engineering faculty at the University of Nevada-Reno who participated in the Association for Women in Science survey indicated high career commitment and high evaluations of self as researchers and teachers. However, evaluations of departmental and university encouragement and resources were in the moderate range. This suggests that active programs to retain women were not in place. Open-ended responses indicated that equity issues were a concern to a number of faculty, but the Association for Women in Science survey had few questions pertaining specifically to equity or bias in salary or merit. As a result, this survey did not appear to adequately tap the importance of evaluation, salary and merit to participants. Areas for improving the retention of women faculty that emerged included the need for a more positive work environment with greater senior faculty support and mentoring, greater access to resources and skills training for research, more progressive policies concerning child and family issues, and stronger institutional leadership around equity and climate issues.