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Where Are the Women Geoscientist Professors?

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Meetings

Where Are the Women Geoscientist Professors?

Nearly 50 geo- and social scientists recently gathered in Washington, D.C., for a workshop on women in the geosciences. The two-fold purpose was to compile data on the status of women in the geosciences, and to arrive at a consensus on strategies to increase the proportion of women in the field.

Participating 4 decades of experience, including both genders, and represented many types of academic institutions, from high school to private, bachelor's degree-granting colleges to public and private Research 1 institutions. Two social scientists who specialize in women-in-science issues also participated.

Sonja Erxleben from the National Science Foundation (NSF) opened the workshop with a presentation on NSF’s ADVANCE program to increase gender diversity in the sciences. Geoffe­eny Cohen of Yale university’s department of psychology presented research findings on “ste­reotype threat,” a phenomenon whereby people fear that others will view them as a stereotype. This apprehension negatively affects perfor­mance and causes the person to behave in a man­ner that fulfills the stereotype. Three panel dis­cussions addressed the data, career paths and options, and under-recruitment and under-re­presentation of women and minorities in the field.

Workshop participants agreed that the data in­dicate that we lose women at every juncture in a geoscience’s career from under-recruitment of women to major in the geosciences, through to post-tenure retirement. The greatest losses of re­cruted women occur between the completed bachelor’s and Ph.D. programs, and during hiring into academic positions. Once hired, women appear to fare as well as their male counterparts in reaching tenure and their first promotion, although low numbers of women preclude statistical confidence in this assertion.

One of the biggest “leak points” for promising female academics is between the bachelor’s and completed Ph.D. programs, and their diversity in the field.

Bell reported on a detailed self-study of who are less interested in competing against Colum­bia University’s slow-poke toward gender all comers, and more interested in landing a equity (Bell et al., 2003). They found that in the geosci­ences, Columbia is out-producing the national average for women Ph.D.s, but that sparse num­bers of women Ph.D.s are in their applicant pool for faculty positions. The Columbia team just re­ceived an NSF ADVANCE Institutional Grant to address this issue.

The second panel addressed “Career Paths and Expectations” with presenters Carol de Wet (Franklin & Marshall College), Gail Ash­ley (Rutgers University), Pam Muller (Univer­sity of South Florida), and Jill Kasten (AGU). De Wet summarized data showing the number of female scientists increasing and that the major­ity of women scientists are married to scientists. This generates what physicists term “the dual body problem” leading to commuter marriages, trailing spouses, or the “family squeeze” (two full-time careers x family). Working with a phys­icist, she and Ashley demonstrated the over­lap of the tenure clock with the biological clock process (de Wet et al., 2001). Muller presented the results of a successful lawsuit of female professors against the University of Florida system. The plaintiffs uncovered written documentation that female-salaries were capped at 80% of male’s sal­aries in comparable positions. Kasten presented AGL’s efforts to increase diversity in the sci­ences and described her own experiences with academic family and female colleagues.

This panel led to a lively discussion of what factors determine an “ideal geoscience depart­ment,” and the conveners will develop a list of “highlights” that departments should close­fit the participants’ vision of what constitutes a family-friendly, and hence, both female- and male-friendly academic workplace.

The last panel addressed recruitment and re­tention issues. Panelists were Jeanea McCraith Cohoon (University of Virginia), Marilyn Suiter (University of California San Diego), and Julie Winkler (Michigan State University). Cohoon discussed gender equity issues in com­puter sciences and physics. She finds that reten­tion of female students is lower, and that pro­grams lag behind other science fields, but that completion rates for males and females are com­parable, and better than in other science fields. While recognizing that leaks occur throughout the academic career, she questions (not to the modern­est increases in recruitment to bachelor’s degrees, 27% in 1996-1997) and rigorous attention to retention can gen­erate gender parity by 2007. On the other hand, she pointed out that with no increases, it will be at least another 47 years before parity is reached.

Workshop participants agreed that recruitment policies: lack of daycare in graduate school, as well as for faculty, lack of flexibility in appoint­ment periods, and difficulties with dual-career issues.

Strategies for Addressing the Principal Leaks

We are faced with a circular dilemma: women will not be attracted into academia as long as they do not see role models whose lives they wish to emulate, and academia will not attract this wide range of lifestyles until some funda­mental changes occur.

A workshop summary will be available for dis­tribution in 2004. In the meantime, presenters give at the workshop, and links to resources for dual-career couples (http://www.agu.org/journal.html), including sample contracts and strategies for ne­gotiations.

Presentation on Women in the Geosciences was held September 25-27 in Washington, D.C.

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References


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