

Advancing Post-Doctoral Women in Science and Engineering in the University of Wisconsin System

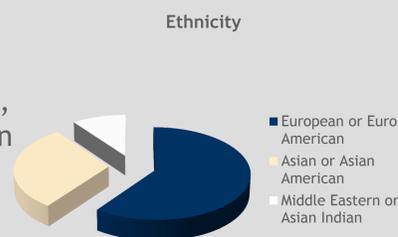
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Introduction

In the U.S., there are fewer women than men as professors in science, technology, engineering, and math (STEM). This is also true in the University of Wisconsin (UW) System where many primarily undergraduate institutions (PUIs) have a single female full or associate professor in STEM departments. Utilizing an ADVANCE PAID grant from the National Science Foundation, the UW Women and Science Program developed a seminar series that targets female post-doctoral scholars preparing for an academic career in STEM and aims to increase the number of applications to tenure-track positions in STEM at PUIs. The purpose of this study was to evaluate the effectiveness of the program by assessing participants' interest in, knowledge of, and applications to academic positions at PUIs following participation in the program. The current study describes post-docs' interest and perceived knowledge prior to participating in the seminar series. We expected participants to be less interested in and knowledgeable about careers at PUIs compared to primarily research universities.

Method

- All female post-docs in STEM at UW Madison and UW Milwaukee were invited to give seminars at the 11 UW System comprehensive universities.
- Participants were instructed to fill out a preliminary survey as part of their application to the program. Questions assessed knowledge and interest in academic careers at PUIs in an open-ended and rating scale format.
- All 10 applicants were accepted to participate in the seminar series.
- Six of the 10 participants identified themselves as European or Euro American, 3 as Asian or Asian American and 1 as Middle Eastern or Asian Indian. Six had a parent in science or engineering and 6 could identify at least one female mentor in their field.



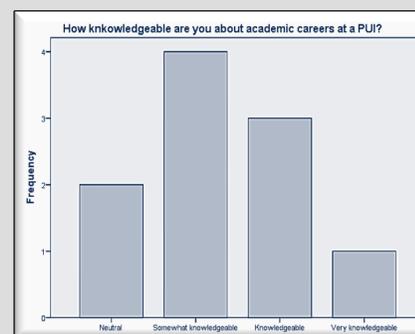
- Seminars included a practice “job talk” which allowed post-docs to meet current STEM faculty who could assist in the preparation of job applications. Further, it allowed undergraduates attending the “job talk” the opportunity to meet women mentors in STEM.

Results

When asked what they believe the primary advantages of working at a PUI are, participants identified having more time to teach and work with students as most important. When asked about the disadvantages, lack of funds for research was indicated as a primary drawback. Many participants displayed enthusiasm about having time to share their knowledge with the next generation as the following response exhibits:

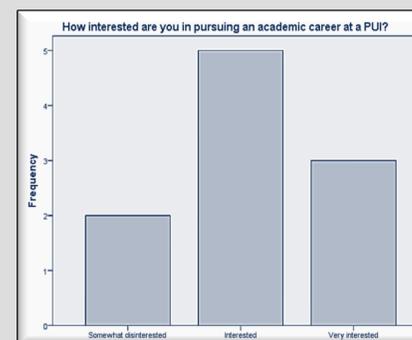
“The primary advantage for choosing academic career was to teach, convey and apply what I had learned and still learning as a scholar to the students”

Opposing our predictions, participants claimed to be both interested in and knowledgeable about careers at PUIs.



When asked how knowledgeable they are about academic careers at PUIs, 8 of the 10 participants believe they are at least somewhat knowledgeable.

Of the 10 participants who were selected to participate in the seminar series, 8 claimed they were either interested or very interested in pursuing an academic career at a PUI.



Discussion

Contrary to our predictions, participants claimed to be both interested in and knowledgeable about academic careers at PUIs. However, the sample size was limited and over half of the participants had a parent in STEM and/or a female mentor in STEM. It is possible that our participants' attitudes were influenced by their parents and/or mentor. Furthermore, though participants claimed to be knowledgeable about such careers, comments on the open-ended questions suggest otherwise. For example, one participant identified “no need to focus on research” as a primary advantage of an academic career at a PUI. Though there is less focus on research at a PUI compared to a research institution, faculty at PUIs can be expected to spend up to half of their time on teaching and up to half of their time on research.

At the termination of the seminar series, post docs will be asked to fill out a survey addressing their experience in the series as well as their job search experiences. We expect participants will find that they are more knowledgeable about careers at PUIs following participation. Further, we expect the program to help participants clarify their career goals. Success of the program will be measured by the number of applications to tenure-track positions at PUIs and job interview experiences. It is anticipated that participation in the program will help to expand the representation of female faculty in STEM in the UW system overall.

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References

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- UW Oshkosh Office of Institutional Research, (2010). Unpublished data.



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