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Fostering Collaboration and Advancement: APS Professional Skills Development for Women Physicists

by Kiyomi D Deards, Assistant Professor, University of Nebraska-Lincoln

In late March it was my privilege and pleasure to attend the American Physical Society Professional Skills Development Workshops for Women Physicists. The workshop was sponsored by the National Science Foundation, and scholarships were available to offset the cost of attendance. Throughout the workshop we were challenged to improve our skills in negotiation, communication, and leadership, but more importantly, we forged relationships that will benefit each other for years to come.

Attendees of the workshop came from a variety of professional backgrounds ranging from grant-funded freelancers to post-doctoral researchers or associates at major laboratories, and educators from community colleges and universities, and in my case, a tenure-track physics librarian with a heavy science background. This diversity of viewpoints was one of the greatest strengths of the workshops. None of the participants knew each other before the workshops began. By bringing together individuals who were not intimately familiar with each other, participants were able to be more open when sharing their strengths, weaknesses, advice, and problems without fear of retribution. In addition, when problems were shared, it was often the individuals who were on a different career path who were able to examine the facts and provide unique and effective solutions.

After a light breakfast and some opening remarks, attendees were split into two groups, post-docs in one, and early-career and pre-tenure scientists in the other. I was intrigued to see that the first session, Strong Women / Strategic Performance, would be led by Nancy Houfek and Lee Warren, as I had previously participated in one of their workshops through the NSF ADVANCE program at the University of Nebraska-Lincoln. Nancy and Lee were effective and gracious workshop leaders; what I had not anticipated was the exponential increase in the impact of the workshop due to its neutral setting. As the Head of Voice and Speech for the American Repertory Theater at Harvard University, Nancy Houfek is a master of physical and verbal presentation and communication. Her practical advice and solid presence set us at ease and made it clear that all of us were capable of becoming thoughtful and effective communicators and leaders. Lee Warren, Director Emerita of Professional Pedagogy for the Kennedy School of Government at Harvard University, used her wealth of experience to demonstrate the need for strategic planning of negotiations. The workbook provided with this workshop included detailed exercises designed to mentally prepare participants for important meetings, and prepare the voice and body so that our physicality did not detract from the presentation of our work.

One of my favorite moments was when Nancy and Lee talked about being “pushy with grace” or “relentlessly pleasant.” Their main idea was that we never have control over how others will act, but we can be firmly and relentlessly cordial in how we react, allowing us to stand our ground while being pleasant and respectful of others. This technique is handy not only when others are being unpleasant, but also when we need to say no to others. Other important takeaways included: be present and take up space, ask for what you need and for what you want, take care of yourself, and have allies. The final piece of advice we were given was that we should always have a confident outside of our work setting who can be trusted to keep what we share private and tell us truthfully if they think we are right or wrong.

During the lunch hour there was a brief presentation on the status of women in physics and STEM as a whole. One of the most surprising statistics was that about 50% of K-12 students who take physics are women. It drops to ~20% at the undergraduate level and is lowest at the full professor level, with women making up ~8% of fully promoted professors. Women do slightly better at the Assistant Professor level, making up ~22% of the work force, but given the number of bachelors degrees and full professors, many participants speculated that women who pursued physics at the college and university level were getting stuck at the assistant professor level and not advancing to the associate and full professor levels. In addition to the workshops I attended, APS has created Women In Physics.org (www.WomenInPhysics.org) to educate people about gender issues in physics by providing information on current statistics, opportunities, and resources about women in physics.

The afternoon session focused on negotiating skills and was led by Ernestine Taylor, Consultant in Human Resources, and Adjunct Faculty/Certified coach, at the Center for Creative Leadership, and Jane Tucker, President of Jane W. Tucker & Associates. This session’s content centered on the concepts of staying focused on what’s most important to us and packaging our arguments so that they show the value of our proposal to those with whom we are negotiating. Part of staying focused is looking and speaking professionally, wearing clothes that do not need to be adjusted, eliminating negative physical movements such as clutching our hands, and speaking with strong positive statements. When instructors write learning outcomes they do not state “The student may,” they state “The student will.” The change of a single word takes the statement from sounding unsure and timid to confident and powerful. Our discussion about the need to find common ground resonated with me; common ground may be personal or work-related, but the importance of forging a personal connection before asking for what we need stood out as an imperative first step in successful negotiation. We also talked about asking for help when we need it, which can be extremely difficult to do. Sometimes we do not realize we need help, or by the time we realize that we
need help we can feel it is too late to ask for it. Giving ourselves permission not to be perfect and to ask others for the same type of help we often provide should be simple; sadly, it is not. The desire to always be the helper and not the helpee is part of why so many women struggle with overcommitment, which leads to the concept of walking away from a situation. Stepping back for a time may be necessary to gain a clear perspective, and sometimes the best thing to do is walk away. The ability to let something go for a day, or forever, takes practice, which is where support networks can help provide the perspective that we lack. In reality the world will not end if you take a couple of days to think over a situation that is troubling you, but we feel this pressure to respond immediately, as if taking the time to be thoughtful in our consideration is a sign of weakness. The message I took from this session was: don’t be afraid to be strong and show it, take time to be thoughtful, and no one succeeds alone.

The day concluded with a networking reception for attendees, facilitators, and other interested parties. The opening breakfast and evening reception were a study in contrast. Earlier in the day people were quiet and polite, with only a gentle murmur of conversation moving throughout the room. By the evening people were seeking each other out to ask for advice, share a resource or opportunity for research, pass along job leads, and exchange information so that they could collaborate in the future. Voices were louder, faces were more animated, and in the end everyone left with more future collaborators, mentors, and friends than we arrived with.

### New Program Recognizes Women Physicists

*By Deanna Ratnikova, APS Women & Education Programs Administrator*

The APS Committee on the Status of Women in Physics (CSWP) began a program to highlight exceptional female physicists in January 2012. Each month a new woman is the face of www.WomenInPhysics.org and a short bio is featured on the website showcasing the amazing talents of female physicists.

The CSWP Woman Physicist of the Month award recognizes female physicists who have positively impacted other individuals’ lives and careers. The award is not restricted to just research physicists, but open to students, teachers or any woman doing physics-related work. Nominations are accepting on a rolling basis.

To nominate someone, the name, institution/facility/company, and email of both the nominee and nominator should be emailed to women@aps.org. The nominee’s CV and a nomination statement up to three paragraphs should also be included in the email as attachments.

*The first physicists to receive the recognition include (in order of feature):*

- **Helen Caines**
  Yale University

- **Elizabeth Simmons**
  Michigan State University

- **Sherry Yennello**
  Texas A&M University

- **Kathleen Stebe**
  University of Pennsylvania

- **Christine Nattrass**
  University of Tennessee at Knoxville

- **Ana Maria Rey**
  JILA and University of Colorado at Boulder

- **Ann Heinson**
  University of California, Riverside

- **Marianna Safronova**
  University of Delaware

> “I am delighted to have been selected as one of these women of the month role models. I have spent my career as a researcher and not as a professor, so this shows young women there is more than one route to being able to do physics research.”

— Ann Heinson