



**“Post-doctoral and Early Career Research Programs at Academic Institutions and  
their Impact on Women”**

**Roundtable Framing Issues and Strategies: Where We Stand”**

**Committee on Women in Science, Engineering, and Medicine of the National  
Academies, Washington, DC, November 4, 2010**

**Beverly Karplus Hartline, Discussant  
University of the District of Columbia**

Good afternoon. I am from the University of the District of Columbia. We are an urban land-grant institution, an historically black college or university, and the only public university in the nation's capital.

In some ways, we are not part of the problem here, because we are not producing PhDs. We are preparing graduates with undergraduate degrees, master's degrees, and law degrees, and we have a great need to hire bright PhDs to be faculty at our university. However, our working environment is not quite the same as it is at major research universities, in terms of what the faculty need to be doing.

At UDC we are trying to provide early career faculty with mentoring—both inside and outside the department. We also try to give new faculty an opportunity to prepare and publish those critical papers that should result from their PhD dissertation or post doctoral appointment. Since we now have aspirations that our faculty will get grants and pursue research and scholarship, as well as teaching, it is vitally important for them to have publications.

In addition, as the graduate dean, I am creating professional development opportunities for graduate students. Although our graduate students are getting master's degrees, some will go on for PhDs, and in any case we need to help our students acquire the skills so they will be well prepared for success in their chosen career path. Grant writing, communication, and other topics.

I want to spend most of my time talking about an international effort I have been involved with for many years. I am on the Working Group on Women in Physics of the

International Union of Pure and Applied Physics (IUPAP), and was one of its original members when it was established in 1999, hoping to graduate soon.

Physics is one of the disciplines, as Rachel Ivie has described, with very low participation by women. The working group has organized three major international conferences on women in physics. One in Paris in 2002; one in Rio in 2005; and one in Seoul in 2008. We are finalizing arrangements for the fourth conference to be held in Stellenbosch, South Africa in April, 2011.

These conferences have brought together 140 to 300 women and men from 40 to 65 countries around the world to develop and share strategies for increasing the number of women in physics and accelerate their advancement. The conferences provide professional development sessions; discussions of research; sessions for brainstorming and planning national, regional, and global initiatives; and reports on the status of women in physics in each country. The participation of men is very important, because without men being involved and actively supportive, it will be either impossible or very slow to dramatically improve the participation of women in the field.

The conferences also produce resolutions, which have been submitted to the IUPAP General Assembly and formally adopted. We have encouraged IUPAP to promote national, regional networking to help women advance.

In 2005, the resolution encouraged IUPAP to cosponsor the development and use of training modules on race and gender equity on physics, pedagogies, curriculum, recruitment, and advancement of women.

Ethnicity is a bigger challenge than gender, and the combination of being a minority and a woman is doubly challenging.

In addition, the resolution committed IUPAP to require conference it sponsors to improve the inclusion of women on the organizing committee, among invited speakers, and among attendees. IUPAP sponsorship is vital to the credibility of international conferences in physics, so this requirement is quite powerful. In addition, IUPAP was to encourage its member societies and other scientific unions, like in chemistry, earth science, hydrology, and engineering, etc. to do the same.

The resolution from the 2008 conference asked IUPAP to actively encourage organizers of conferences it sponsors to provide associated with the scientific program at the meeting, (a) professional development workshops for attendees; and (b) outreach activities to the public and community to engage both girls and boys in the excitement of

physics. In many cases these conferences are bringing an exciting scientific frontier to a city or locale that has typically little access.

Professional development conferences are on topics, such as “It’s Your Career—Take Ownership to Get Where You Want to Go,” and they help early career women become more intentional and skilled at following their desired career path, rather than being blown off course by the wishes or actions of others.

We are in the process of organizing the fourth conference. I would be remiss not to mention that for this conference we are trying to raise funding for students and early career women and men to attend from the USA and from developing countries.

Thank you for your attention. I look forward to the discussion.