

Enhancing Diversity in Science

A Retreat to Discuss the Role of Professional Associations and Scientific Societies

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Emerging Recommendations



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On February 28, 2008, a multidisciplinary group of organizations sponsored a disciplinary-wide retreat of the leaders of professional associations and scientific societies to discuss the role of these organizations in "*Enhancing Diversity in Science*." The organizations responsible for conceptualizing and implementing the groundbreaking meeting include: AAAS Center for Careers in Science and Technology, the American Educational Research Association (AERA), the American Sociological Association (ASA), the American Psychological Association (APA), the Association of American Medical Colleges (AAMC), the Federation of American Societies for Experimental Biology (FASEB), the Institute for the Advancement of Social Work Research (IASWR) and the Society for Research in Child Development (SRCD). The National Institutes of Health (NIH) provided the funding with additional funding provided by the National Science Foundation (NSF).

The retreat, in part, is a response to the recent number of reports that have documented increasingly fewer underrepresented minorities are pursuing careers in science, and that the leakages in the science pipeline for minority students and professionals happen at various stages - but especially within higher education. Professional associations and scientific societies represent permanent homes for scientists and students of science, many of whom relocate several times throughout their careers. In addition, associations and societies, as sources of stability for their members, have an opportunity to provide educational and career support that might not otherwise be consistently available. They can work together to develop common approaches to enhancing educational and career opportunities for vulnerable populations, and to help ensure greater participation of underrepresented minorities in science.



The goal of this retreat is to spawn *collaboration* among associations, societies, federal agencies, and private foundations that has been, in many instances, lacking. The conveners of the retreat believe that collaboration is essential to enhancing recruitment and retention of underrepresented minorities in science. The associations and societies hope that this retreat will forge new opportunities for these groups to work together, learn from each other, and develop common approaches, where appropriate. In turn, this group effort should enable key areas of progress, such as the development and utilization of outcome measures to assess program effectiveness.

The retreat's [agenda](#) focused on: (1) Obstacles and Challenges to the Recruitment and Retention of Underrepresented Minorities in Science, and (2) Successful Models and Future Initiatives. Shirley M. Malcom (AAAS) kicked off the morning by framing the issue. The morning panel of experts: Arthur L. Coleman (Holland & Knight), Erich D. Jarvis (Duke University), and Andres E Jimenez (University of California) focused on understanding the various obstacles, challenges and opportunities in this area, including those identified in research, in recent court decisions, in the careers of individual scientists, and by university and association leaders. During lunch, NIH Deputy Director Raynard S. Kington

provided remarks about the NIH's efforts in this area and introduced the retreat's keynote speaker, **Freeman A. Hrabowski, III**, President of the University of Maryland, Baltimore County. The afternoon panel of experts: **Wanda E. Ward** (NSF), **Jeremy M. Berg** (National Institute of General Medical Sciences), **Ted Greenwood** (Alfred P. Sloan Foundation), and **Joan Y. Reede** (Harvard Medical School) focused on successful models for overcoming obstacles, drawing upon the perspectives of both federal and private funders and program leaders. **Mary Ann McCabe** (SRCD) shared the key findings of a recent survey of professional associations and scientific societies that indicate what

Recommendations Emerging from Breakout Sessions

Participants were assigned to one of five breakout groups and asked to consider three themes throughout their discussions: 1) collaboration, 2) policy, and 3) funding. Below are some of the recommendations that emerged from the breakout sessions. The coalition expects that some areas for proposed action may require new vehicles for effective collaboration, such as a new e-mail listserv for associations and societies to share information, and one or more future workshops devoted to a specific area for action, such as the development of common outcome measures to enhance program evaluation.

Evaluating Diversity Program Outcomes

- Associations, in collaboration with institutions and funders, should collect and critically review research and best practices on programs that can be evaluated and generalized across disciplines and understood by others. This could generate a typology on the types of programs according to goals and career stage. This should be continually updated and available by such means as a Web portal, journal articles, critical reviews, etc. Associations could use society meetings, Web sites, publications, etc. to publicize this information.
- Associations need to work together on these issues so societies with the necessary expertise can help those who don't have expertise (sharing capacity).
- Associations should work with each other and with the federal agencies to better inform data-collection strategies and to integrate datasets, when possible.
- Associations need to educate their members on the value of collecting these demographic data to increase the participation rates for these voluntary responses.
- Associations need to advocate for enhanced federal longitudinal data collection strategies for these issues. Associations need to advocate for including support for evaluation in program funding.
- Associations should collaborate with departments on collecting this information, getting buy-in from the central administration. Ideally, professional societies should work with departments at the *same* institution to achieve critical mass across disciplines.

Mentoring Underrepresented Minorities

- Bring attention to the need to incentivize quality mentoring by institutions/faculty.
- Encourage funders to incorporate broader impacts review criteria into grants (some disagreement).
- Encourage investigators to seek supplemental grant funds to cover mentoring activities.
- Showcase success stories to demonstrate the value of mentoring for individuals and institutions.
- Develop a pool of mentors/mentees who can promote the value of mentoring.
- Build an infrastructure to support long-term mentoring relationships.
- Develop a mechanism to evaluate the sustainability of mentor/mentee relationships.
- Develop a resource to help mentors and mentees understand their goals and expectations.
- Use associations' newsletters as a means of outreach.
- Bringing students to annual meetings for both scientific and non-scientific programming and networking opportunities.
- Collaborate with other associations to develop definitions of program success, evaluation metrics, and collect data on program outcomes.

Retaining Underrepresented Minorities in Science: Students through Early Career Professionals

- Associations must be accountable for reflecting the diversity and inclusion principles they espouse in their policies, strategies, program implementation, and leadership.
- Associations can serve as linkages to aid transitions across gaps in mentoring during the professional education process.
- Associations can advocate for funding and policy development to support diversity initiatives.
- Associations can improve data and outcomes research.
- Associations serve a critical role in identifying, highlighting and rewarding best practices, models, etc.

Retaining Underrepresented Minorities in Science: Early through Later Career Professionals

- Build diversity goals into professional associations' strategic plans.
- Provide incentives and requirements for mentoring.
- Request universities to collect data and provide them with models for collecting the data.
- Increase communication with universities about how underrepresented groups are faring, thereby increasing university consciousness and setting expectations/norms for behavior.
- Recognize best practice within educational institutions.
- Provide more money for professional development workshops.

Generating Support for a Diverse Scientific Workforce

- Develop a joint public statement with accessible language that articulates common goals and encourages policy development to affirm those goals.
- Identify best practices, common challenges, and gather data to inform policy.
- Use data as well as compelling anecdotes—tell the story well—to make the case for diversity.
- Develop an informal network of individuals interested in promoting this issue.
- Provide leadership to members by promoting the importance of diversity.
- Recognize and support institutional practices that advance diversity.

Next Steps

The ultimate aim of the retreat is to arrive at new recommendations for action on the part of associations and societies. It was designed to generate a shared commitment to the problem, new opportunities for collaboration across diverse organizations and areas of science, and specific action steps that the associations and societies can carry out to achieve progress.

A report will be generated from the retreat and will be posted on [COSSA's website](#). A transcript of the speakers' presentations will also be posted. The committee members are currently deliberating how it plans to move forward. Individuals interested in being notified when the report is available can send an email message to the [Enhancing Diversity in Science Coalition](#).