Developing a Diverse Professoriate: A Professional Development Workshop for Traditionally Underrepresented Faculty and Future Faculty in the Geosciences

In April 2012, twenty seven participants traveled to the Washington DC metro area and attended a 2.5-day professional development workshop held by the American Geosciences Institute and the National Academy of Engineering (NAE). Support for this project was generously provided by the National Science Foundation, Opportunities for Enhancing Diversity in the Geosciences, Grant #1108210. Participants’ career levels ranged from early PhD students to Assistant Professors, and they had research interests spanning atmospheric sciences, hydrology, solid earth geoscience and geoscience education. Race and ethnicity of the participants included primarily African American or Black individuals, as well as Hispanic, Native American, Native Pacific Islanders and Caucasians who work with underrepresented groups.

The workshop consisted of three themed sessions led by prestigious faculty members within the geoscience community, who are also underrepresented geoscientists. These sessions included “Guidance from Professional Societies,” “Instructional Guidance” and “Campus Leadership Advice.” Each session lasted about 3 hours and included a mixture of presentational materials to provide context, hands-on activities and robust group discussions. Two additional sessions were devoted to learning about federal agencies. Representatives from USGS and NOAA came to discuss opportunities within each agency and the importance of promoting geoscience literacy with our participants. That afternoon, workshop attendees had the opportunity to visit NSF headquarters. Participants were welcomed by NSF’s Assistant Director for Geosciences and took part in small group meetings with program officers within the Geosciences Directorate.

To evaluate the effectiveness of this experience, attendees completed a total of 6 surveys: one before the workshop, one immediately after the workshop, and again at 3, 6, 10, and 13 months following the workshop. In all 6 surveys, attendees were asked to rate themselves on 5 characteristics related to the workshop sessions, estimate how frequently they do certain activities, and rate their confidence in doing those same activities. In addition, in the 5 post-workshop surveys the attendees rated how valuable the various sessions of the workshop were to their careers.

With few exceptions, ratings of both frequency and confidence increased immediately following the workshop but fell at the follow-up survey times, which is likely a reflection of the difference between the attendees’ intended behavior and their actual behavior. For example, attendees may have left the workshop fully intending to serve on a professional society committee (20 of 22 indicated that they would serve at least every few years), but over the course of the following 13 months either did not have the opportunity to serve on a committee or did not have the time (approximately half of respondents at 3, 6, and 10 months had never served on a committee, although by the 13 month follow up less than a third had not served). A report of these data can be found here.

The National Academy of Engineering developed an important resource for the community called the PI-Guide, which revisits important learning opportunities from the workshop by providing video clips of speakers and participants. Click here to access the PI Guide. Under "Video Scenarios", Sort by Network and choose "AGI Diverse Professoriate."