‘Rotators’ in the National Science Foundation’s Geosciences Directorate

PAGE 200

More than half of the program directors at the U.S. National Science Foundation are ‘rotators,’ either on loan from their host institutions as visiting scientists, engineers, and educators, or employed through grants to their home institutions. What are the benefits of being a rotator at NSF and should you apply for a rotator position? This forum summarizes the reflections of 17 rotators from the divisions of Atmospheric, Earth, and Ocean Sciences in NSF’s Directorate for Geosciences who responded to an informal survey I sent out after completing a 2-year position in the Division of Ocean Science. My aim here is to describe how rotators in the geosciences view their experiences at NSF with respect to their own science and career paths, to help you decide whether to consider applying for a rotator position in the directorate.

Benefits of the job include intellectual growth, increased awareness of ongoing research activities in a broad spectrum of disciplines, and an enhanced ability to write competitive proposals. The experience provides a “great way to survey the breadth of U.S. science in real time—what people are thinking of doing, as opposed to what they have already done,” one rotator indicated. Another noted that other benefits included “obtaining excellent, high level experience with a lot of power to help scientists, meeting many people in the scientific community and increasing one’s own visibility, gaining broad exposure to a range of science (and completely changing one’s possibly own narrow scientific views), gaining experience that is valued by many universities (a significant number of [rotators] go on to become department heads), improving one’s understanding and strategizing for writing and submitting proposals, going to various meetings and developing new initiatives with the community and working with a set of excellent colleagues.”

Clearly, the opportunity to evaluate new directions of research and to become involved in national programs and initiatives by working with researchers, bureaucrats, and policy-makers from different walks of life and many different federal agencies and universities is valued highly by rotators in the directorate.

It is important to point out that service is a huge part of the job, and there is a lot of bureaucratic and administrative work. Dealing with the number of proposals, principal investigators, and paperwork is a full-time job in itself. However, program directors also have a highly valued and significant role in advising new investigators, through contacts at conferences, talks to groups visiting NSF, and individual discussions. The outreach, mentoring, and advising of principal investigators are rewarding aspects of the position. Though time for research is built into the rotator position, most rotators responding to this survey feel they are unable to fully maintain their research programs at their home institutions. For this reason, several rotators recommended that early-career scientists should consider a rotation only if administration is a chosen career path. Overall, rotators held neutral to mostly negative opinions about the impact of their time at NSF on their ability to make progress on current projects or writing manuscripts. As one rotator concluded, “initially, my research was negatively impacted by my taking one year off, but I am not sure that this impact will be significant when viewed over the length of my career and when adjusted for all of the positive impacts that have resulted. Probably in the end, the long-term impact will be viewed as positive.” Another summarized the effect of the experience on their science as follows: “The experience broadened my vision and understanding of the importance of fundamental science within the broader sociopolitical environment. It has helped me to focus on the important and cutting edge questions in my discipline.”

The reflections of these rotators indicate that the experience provides a valuable opportunity to engage in service to the geosciences community while enhancing one’s own career in multiple ways. With respect to careers, the high-level administrative service experience enhances professional growth and career prospects in administration, including potential for returning to NSF as a full-time program director. In summary, being a rotator is an excellent way to “make a difference,” to learn more about the field, to work with excellent professional colleagues, and to get to know the geosciences community beyond one’s area of specialization.

The Visiting Scientists, Engineers and Educators (VSEE) Program is described at http://www.nsf.gov/about/career_opps/rotators/vsee.jsp. Employment through grants to home institutions under the terms of the Intergovernmental Personnel Act (IPA) is described at http://www.nsf.gov/about/career_opps/rotators/ipa.jsp.

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