Serving as a Visiting Scientist at the NSF

Funds from the Division of Mathematical Sciences (DMS) at the National Science Foundation (NSF) account for almost 60 percent of the federal dollars supporting mathematical research at universities. The DMS staff play a central role in insuring that these funds are wisely used. The DMS is run by twenty technical and thirteen support staff. One third of the technical staff are permanent employees of the Foundation, and the other two-thirds are mathematicians and statisticians on leave from universities, national laboratories, and companies. Some of these visitors work on a part-time basis; others come for one or two years. For those who might be interested in working for a period in DMS, this short piece describes what visiting scientists do and how to get more information about working in the DMS.

The duties of a program director in the DMS involve the planning, coordination, and management of support for research, infrastructure, and human resource development for the mathematical sciences, primarily through federal grants and contracts to academic institutions and nonprofit, nonacademic research institutions. This entails reading proposals, determining appropriate reviewers, and assessing the proposals in the context of available funds and competing proposals. Making the case for research opportunities in the field is becoming an increasingly important aspect of the job. Needless to say, there is a lot of contact with the mathematical sciences community as well as other scientific communities.

Program directors are required to have a Ph.D. or equivalent experience in a field of the mathematical sciences and six or more years of successful, independent research experience beyond the Ph.D. A broad knowledge of one of the relevant disciplinary areas in the Division, some administrative experience, knowledge of the general scientific community, skill in written communication and preparation of technical reports, and the ability to communicate orally are important qualifications for a successful program director.

It is clear why the DMS values the visiting staff: they bring fresh perspectives and new ideas. But why do mathematicians use their leave to spend time in the DMS? There are many advan-

Spending a year or two in the DMS is an excellent way to make a contribution to the profession and to the strong support of research.
tages to spending a year or two at the Foundation. The most important is opportunity to gain a broad perspective of the mathematical sciences. Each program in the DMS provides a home for a wide range of projects, and this presents an opportunity to see what is happening in areas related to one’s own. This is especially true for multidisciplinary activities. There is also a large amount of interaction with both the scientific community and other program directors, which can provide a different slant on the field. Invaluable experience can be gained with respect to the writing of proposals, and this can be useful both to the individual and to members of his or her department. A year or two in Washington enables one to see the operations of the government from the inside as well as to influence the way that federal funding affects the mathematical sciences.

The support the DMS provides is extremely important to the health of mathematical sciences research in this country. Spending a year or two in the DMS is an excellent way to make a contribution to the profession and to the strong support of research. Time spent in the DMS is an important service to the field, especially today, when federal funding priorities are changing so rapidly. Although there are many advantages for the individual in coming to work for a period in the DMS, the best visiting scientists are those who come to the DMS out of a deep belief in the importance of research in the mathematical sciences.

Every year the DMS recruits individuals from the community for the visiting scientist program. This year, the DMS expects to recruit for full-time program directors in statistics, probability, analysis, and geometric analysis. They are also looking for some part-time program directors, most likely in applied mathematics, statistics, and algebra/number theory. The DMS is very interested in diversity and strongly encourages women and minority scientists to apply. Anyone interested should get in touch with the staff of the DMS by phone at 703-306-1870 or electronically at aboye@nsf.gov.

—Allyn Jackson