

Furthering Careers in Science and Technology

The world is in need of a highly skilled science and technology workforce to meet the demands of the next century. In 1999, in the United States alone, there were almost 11 million scientists and engineers, but only about 3.5 million were working in jobs that required training in the sciences. In the same year, according to the National Science Foundation, the national unemployment rate was 4.4 percent, whereas in the science and engineering professions, it was 1.6 percent, with a 1.2 unemployment rate among computer scientists and mathematicians.

To help swell the ranks of the science and engineering workforce, AAAS programs support new scientists, with a special emphasis on increasing the number of women, minorities, and people with disabilities in the sciences. The Association worked most recently on initiatives that provided information, training, and opportunities for collaboration among scientists, regardless of geographic origin.

New Scientists >>> For at least the last five years, science policy officials and academic administrators have known that postdoctoral scientists in the United States have become increasingly indispensable to the nation's science and technology enterprise. In the last 15 years, the number of scientists in postdoctoral programs has more than doubled, and funding agencies have described their plight in well-documented studies: postdocs are often underpaid, lack job security, and receive too little recognition for their work, and too little training and mentoring.

In 2002, to help address the plight of the nation's 60,000 scientists in postdoctoral positions, AAAS and *Science's* Next Wave, the journal's career Web site for new scientists, helped launch the National Postdoc Association, an organization whose mission fits well with AAAS's efforts to increase the S&T workforce while addressing the needs of scientists early in their careers. Shirley Malcom, head of Education and Human Resources at AAAS, is co-principal investigator for the NPA, under a Sloan Foundation grant.

European Initiative >>> New scientists in the United States are not alone in needing support during the first years of their careers. In 2002, in partnership with the European Science Foundation, AAAS also extended its reach to Europe, with the launch of *Science's* Next Wave Europe (<http://nextwave.sciencemag.org/europe>), which provides relevant news, career advice, and ideas to the region's young researchers.

In a region that is striving to become more competitive and to provide greater mobility and independence to its young researchers, the new Web site provides opportunities for exchanging ideas and comments, in addition to relevant news articles and practical career information. The site was launched in November 2002, during the recent meeting of the European Commission's ambitious new 6th Framework Programme, a 4-year, \$17-billion research initiative.

Research in the National Parks >>> Administrators of national parks throughout the Americas have long sought guidance from scientists as they plan for the long-term protection of natural resources in public lands.

An innovative partnership among AAAS, Canon U.S.A., Inc., and the U.S. National Park Service (NPS) was formed to encourage doctoral students to conduct research on scientific problems critical to national parks.

In 2002, the scholarship program expanded beyond U.S. borders to include four scholars from other nations in the Americas. The scholars addressed topics concerned with biological, physical and social/cultural sciences, as well as a new category—technology innovation in support of conservation science.





"I recommend Science NetLinks to the teachers I work with; I am trying to help them realize that the Internet has tremendous resources in the classroom for teachers and students."

SUSAN CONRAD, K-12 Outreach Coordinator at Oglala Lakota College, Kyle, SD



"We've developed guidelines for how materials should be designed, and for judging what constitutes good teaching, and now we have the opportunity to put all that expertise to work."

JO ELLEN ROSEMAN, director of AAAS's Project 2061

