Increasing Connectivity

hen a National Science Foundation program officer asks someone to review a proposal, we ask them to evaluate the proposal in accordance with two merit review criteria: What is the intellectual merit of the proposed activity? What are its broader impacts?

The success of investigators in demonstrating the intellectual merit of their work will depend on their showing that they are likely to conduct scientifically sound research and that the research will be grounded in and contribute to broader theoretical understanding. With respect to broader impacts, they need to engender confidence that they will be successful in one or more of the following realms — integrating research with education, broadening the diversity of the scientific workforce, contributing to the scientific infrastructure, and contributing new insights and information that benefit society.

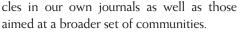
When seeking support from other funding agencies or when responding to a diverse range of other external needs, scholars and practitioners may well have different criteria for evaluating success. But common to the criteria used by all researchers is the need to conduct work soundly and effectively, to produce useful knowledge, and to communicate new knowledge to those who need it.

When considering this general topic at a meeting a few years ago, I was especially struck by the comments of David Hodge, a former NSF Geography and Regional Science Program Director who was then a dean at the University of Washington and now is the President of Miami University in Ohio. Displaying the kind of perspective that years in higher administrative positions give a person, David stressed that a critical goal for many of the activities in academe and related environments is summarized in a single word — connectivity.

Much of what we do as geographers is important in its own right. If we focus our attention too narrowly on the most specific and immediate tasks at hand, however, we run the risk that our work will be relevant only to ourselves and a very limited number of other folks. When we later assess the impact of our work and lament that it has not been more widely appreciated, we may discover that we did little to connect with a broader set of people and groups who may have found it beneficial.

The strong emphasis I have given to enhancing the interdisciplinary reach of geo-

graphy reflects the potential geographers have to enhance the connectivity that we have with researchers in other fields. Our emphasis on locational and other spatial dimensions of problems complements the approaches of other fields in mutually beneficial ways. The utility and explanatory power of well-integrated interdisciplinary research projects is increasingly evident in arti-



The connectivity that we seek to enhance with other fields also should be reflected in the ways we communicate broader geographic concepts and approaches to each other across our different subfields. I remember the excitement I felt early in my tenure at NSF when I read a proposal that sought to explore how the intermixing of waters at the confluence of two streams affected channel morphology and created microenvironments for different kinds of organisms in different locales. This project was interesting and provocative in its own right, but as an urban transportation geographer, I was especially excited to find myself thinking in different ways about what happened when traffic from two different freeways merged, and I pondered how the ebbs and flows created different environments for commercial, office, and other kinds of land uses. I'm sure we all have had similar feelings when we listened to an excellent presentation from a geographer whose specialty was far from our own but whose core message challenged us to rethink the ways we viewed some fundamental geographic issues.

In a similar way, it's rare to find a research project in which geographers play a central role that lacks societal relevance. Our work usually does have relevance to planners, resource managers, decision makers, policy makers, community groups, and/or other kinds of stakeholder groups. Our

connectivity is greatly enhanced, however, if we take extra steps to communicate directly with those audiences, such as making presentations at the meetings of these professional groups, working with practitioners to convert basic new knowledge into new tools with practical utility, or engaging in public discussion and debates.



Baerwald

Many geographers have successfully enhanced the connectivity of their work to others. They stand as models for all of us to emulate. No one should try to increase connectivity in every possible way. But each of us can consider ways we might stretch ourselves and share our work to a broader audience than we otherwise might try to reach. Options abound, whether we talk about core geographic issues with a broader cross-section of geographers, build stronger collaborative ties with colleagues in other fields, speak more directly to those who may find our research useful in practical contexts, work with educators to enhance the knowledge and skills of students or the public, or relate the knowledge we have generated to groups of emerging scholars who generally had not seen geography as a viable career option in the past.

We usually cannot predict what opportunities may come our way, but we should be alert to possibilities and seek to take advantage of changes to increase our connectivity whenever possible.

Thomas J. Baerwald tbaerwal@nsf.gov