NSF to Make More Peer Review Information Available

The general attitude toward peer review within the scientific community might be summed up by Churchill's definition of democracy—the worst possible system except for all the others. Peer review has always had its critics, but recently the National Science Foundation (NSF) peer review system has been the target of particularly sharp criticism from the direction of Capitol Hill. It was, therefore, not an overwhelming surprise when the National Science Board (NSB), which functions as NSF's board of directors, adopted new policies which will make available more information about peer reviews and reviewers.

The policy changes will not basically alter the way the system operates, but they could affect how experts feel about evaluating research proposals for NSF. The four major points in the resolution on peer review information voted by the NSB at its meeting on 18 to 20 June in San Diego were as follows:

1) The foundation will publish annually a list of all reviewers used by each division.

2) Program officers should seek broadly representative participation of qualified individuals as reviewers.

3) Verbatim copies of reviews requested by the foundation after January 1, 1976, not including the identity of the reviewer, will be made available to the principal investigator or project director upon request. The question of including the identity of the reviewer will be considered further by the National Science Board.

4) The foundation, upon request, will inform the principal investigator or project director of the reasons for its decision on the proposal.

News of the changes is just being communicated to researchers, and the early summer decampment from the universities makes it difficult to assess reaction to the new policies. NSF officials who have made soundings feel that annual publication of the list of reviewers and provision of verbatim copies of reviews will not deter most scientists from participating in the review process. Some may be less blunt in stating unfavorable opinions, however. Any decision by NSB to make known the identity of reviewers, however, would be viewed as having a much greater potential discouraging effect on the willingness of scientists to participate.

Because legislators were preparing to get away for the 10-day Fourth-of-July recess when the policy changes were being transmitted to Capitol Hill, congressional reaction will be delayed.

The current intense phase of the attack on the peer review system can be dated from March when Senator William Proxmire (D–Wis.) fired off a press release charging that NSF was perpetuating an "academic oligarchy" by appointing a disproportionate number of advisory committee members from a relatively few universities, with the result that these institutions were favored when funds were handed out. More recently, Representative John B. Conlan (D–Ariz.) emerged as a critic of the peer review system when he encountered what he claimed were abuses of the system during his examination of NSF's school curriculum improvement program. Conlan charged NSF officials with misrepresenting grant proposal evaluations to NSB in order to advance new social science and science course projects (*Science*, 6 June). Conlan requested peer review materials and names of reviewers from NSF but the agency director, H. Guyford Stever, declined to provide them on the grounds that confidentiality was guaranteed to reviewers under long-standing NSF policy.

Sources in Conlan's office said he had not had an opportunity to study the NSF policy changes carefully, but was pleased by the apparent move toward opening up the peer review system. He is not satisfied, however, with the part of the resolution which says that all reviews solicited until 1 January 1976 will be governed by the "confidentiality established by the earlier policy."

Conlan has asserted that NSF middle-level officials have applied the confidentiality rule selectively and in some cases made available verbatim copies of reviews.

The NSF peer review system is expected to be the major subject examined in oversight hearings scheduled by the House Science and Technology Committee's science, research, and development subcommittee starting on 22 July. Conlan is not a member of the subcommittee, but will request to be a witness.

According to data already available, NSF handles about 100,000 reviews a year. Reviewers are still being counted. But there is no disagreement that peer review is the mechanism most used by NSF to evaluate grant proposals.

The NSF peer review process relies more heavily on written reviews than, for example, the National Institutes of Health (NIH). At NSF, the course most often followed is for the program officer responsible for a particular proposal to solicit evaluations from outside experts in the relevant discipline and then make recommendations which are reviewed by his section head and division director. NIH depends mainly on a two-tier system in which specialized study sections meet and mark proposals on the basis of scientific merit. Advisory councils in each institute then consider study section recommendations in the perspective of larger program objectives. NSF program officers also sometimes consult with a panel of outside experts on a proposal, but most often written evaluations are used. This is why the issue of verbatim copies of reviews is important to NSF constituents.

NSF policy until now has prescribed that only summaries of reviews may be provided on request to the authors of proposals. Conlan has charged that individual program officers have violated the rules, and NSF officials concede privately that although the rule is explicit, some individuals at NSF may have "slipped" and provided quotes from reviews and even verbatim copies. They insist, however, that the identities of reviewers have been protected.

Some knowledgeable academic observers say that the rules of confidentiality are, in many cases, beside the point. In small scientific specialties it is simple to deduce who the reviewers are, and in other cases the scientific grapevine carries the word.

The new NSB rules, nevertheless, will impart greater openness to the peer review system, which many scientists will regard as, of itself, a favorable development. In practical terms, the new policy will probably open NSF to more paper work and more complaints. As the basic research budget has leveled off and inflation taken its toll, the funds available for grants have been increasingly inadequate to finance the growing number of "good" proposals. Now that verbatim evaluations will be available, it will be harder for NSF to explain how it chose from among a lot of perfectly acceptable proposals, and scientists with rejections will be less satisfied with the explanations.—JOHN WALSH