

**STATEMENT OF  
DR. CHRISTINE C. BOESZ  
INSPECTOR GENERAL  
NATIONAL SCIENCE FOUNDATION  
before the  
U.S. SENATE  
COMMITTEE ON APPROPRIATIONS  
SUBCOMMITTEE ON VA, HUD, AND INDEPENDENT AGENCIES  
June 6, 2001**

Madame Chair, Senator Bond, and members of the Subcommittee, I appreciate the opportunity to appear before you today. The National Science Foundation (NSF) is an innovative agency dedicated to maintaining American leadership in discovery and the development of new technologies across the frontiers of scientific and engineering knowledge. As the scientific enterprise changes and research evolves, new challenges arise. Consequently, my office has worked closely with NSF management to identify and begin to address issues that are important to the success of NSF achieving its mission. I believe that the National Science Board and the NSF should pay particular attention over the next year to three areas involving the management of its awards.

***Basic Award Administration***

The first area involves basic award administration. NSF's mission is to promote the progress of science and advance the national health, prosperity, and welfare, which it carries out by funding science, engineering and mathematics research and education. Assessing scientific progress and ensuring effective financial and administrative management are critical elements in administering NSF's grant programs. Program officers in each of NSF's seven science Directorates are responsible for monitoring scientific progress, while staff within the Office of Budget, Finance, and Award Management oversees awardees' financial management.

At any given time, NSF is administering as many as 30,000 ongoing awards. NSF relies on a staff of about 1150 employees to carry out this oversight responsibility. This is in addition to their responsibility of soliciting and awarding approximately 10,000 grants and cooperative agreements annually amounting to over \$3.5 billion. Given this sizable workload, NSF is challenged to adequately monitor its awards for scientific accomplishments and compliance with the award agreement and Federal laws and regulations. For the most part, NSF receives a variety of financial and programmatic reports from grantees to monitor progress that could be used to improve award administration. Thus, it is important that NSF focus on the interactions between its program officers and its grant and contract officers. Better coordination between them should lead to more effective management. Consequently, NSF needs improved procedures with more staff targeting this focus.

As NSF extends its scope of research and education at the frontiers of science and engineering, some awards are made to institutions and organizations that increase the risks of compliance or performance. For example, NSF is making more and more awards to school districts, community colleges and non-profit organizations, which may be unfamiliar with managing Federally funded projects. Such awards should be identified early on and accorded closer oversight so that the intended outcomes can be achieved. Moreover, in addition to the risks involved with new awardee organizations, some of NSF's awards have unique management issues.

### ***Management of Large Infrastructure Projects***

The second area focuses on NSF's management of large infrastructure projects. NSF is increasing its investments in large infrastructure projects such as accelerators, telescopes,

research vessels, supercomputing databases, and earthquake simulators. Currently, NSF spends approximately \$1 billion per year for such cutting-edge projects, some of which cost hundreds of millions of dollars. Many of these projects are large in scale, require complex instrumentation, and involve partnerships with other Federal agencies and international science organizations. Some, such as the new South Pole Station, present additional challenges because they are sited in harsh environments. Successful management of these projects and programs requires a more disciplined project management approach.

My office recently conducted an audit of NSF's management of one of these large projects and made several recommendations for oversight improvement. NSF has developed a corrective action plan to respond to our recommendations and we will be monitoring their progress toward meeting this plan. Further, as part of its plan for improved management, NSF is developing and implementing changes to its policies and procedures for managing large infrastructure projects. We are pleased to have been given the opportunity to provide comments to NSF on these, and expect to see implementation in the coming year.

### *Cost Sharing*

Finally, NSF needs to focus on overseeing awards requiring cost sharing. In accordance with Congressional requirements, all of NSF's grantees submitting unsolicited proposals must share in the cost of NSF-funded research projects. In addition to this statutory requirement, NSF sometimes requires cost sharing on solicited proposals. This usually occurs when NSF believes there is tangible benefit to the award recipient, such as infrastructure development or the potential for income or profit. When cost sharing is required for a specific award, it is presumed such resources are necessary to accomplish the objectives of the award. The commitment to

share in the costs becomes a condition of the award and is subject to audit. If promised cost sharing is not realized, then the awardee has not fulfilled its obligation. In such cases, NSF should have at least a portion of its funds returned to it.

Our audits are increasingly finding awardees who are failing to meet their cost sharing obligations. Frequently we find that awardees lack adequate policies and procedures, overvalue contributions, or fail to report or certify cost sharing amounts annually to NSF. We are now conducting more focused audits in this area, covering awards at numerous institutions. But post-award audits should supplement, not substitute for, an appropriate compliance effort undertaken by NSF. The challenge for NSF is to increase its oversight of cost sharing requirements during the life of these awards. Cost sharing is an important contribution from the research community. Therefore, when it is not met, NSF program objectives may not be met. Consequently, improving its administration of awards requiring cost sharing is among the most important priorities for NSF management. We will continue, through our audit efforts, to work with NSF to address this challenge.

### ***Conclusion***

Madame Chair, that concludes my statement. Thank you for the opportunity to share this information with you. I would be pleased to answer any questions that you may have.