

National
Science
Foundation



Office of
Inspector
General



Semiannual Report to Congress

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About The National Science Foundation...

The National Science Foundation (NSF) is charged with supporting and strengthening all research disciplines, and providing leadership across the broad and expanding frontiers of science and engineering knowledge. It is governed by the National Science Board which sets agency policies and provides oversight of its activities.

NSF invests approximately \$7 billion per year in a portfolio of more than 35,000 research and education projects in science and engineering, and is responsible for the establishment of an information base for science and engineering appropriate for development of national and international policy. Over time other responsibilities have been added including fostering and supporting the development and use of computers and other scientific methods and technologies; providing Antarctic research, facilities and logistic support; and addressing issues of equal opportunity in science and engineering.

And The Office of the Inspector General...

NSF's Office of the Inspector General promotes economy, efficiency, and effectiveness in administering the Foundation's programs; detects and prevents fraud, waste, and abuse within the NSF or by individuals that receive NSF funding; and identifies and helps to resolve cases of misconduct in science. The OIG was established in 1989, in compliance with the Inspector General Act of 1978, as amended. Because the Inspector General reports directly to the National Science Board and Congress, the Office is organizationally independent from the agency.

About the Cover...

Original photograph by Mary Pully, OIG.



This Semiannual Report to Congress highlights the activities of the National Science Foundation (NSF), Office of Inspector General for the six month period ending September 30, 2012. During this reporting period, 12 audit reports and reviews were issued, four of which questioned \$6.6 million, and one of which found more than \$154 million of unallowable costs in a proposal for a major construction project. Our investigative staff closed 63 administrative and criminal/civil investigations, had 11 research misconduct cases result in findings by NSF, and recovered \$1,188,265 for the government.

Our work reflects our robust and sustained commitment to helping NSF strengthen its stewardship and accountability over the millions in taxpayer dollars dedicated to advancing scientific research. To attain the level of accountability necessary to safeguard these funds and to ensure that they are spent appropriately, NSF cannot limit its attention solely to scientific efforts—it must also focus on enabling sound financial management of the taxpayer money entrusted to the Foundation. In some instances, achievement of this second goal can require changes in long-held processes and business approaches. We recognize that change of this magnitude presents formidable challenges and we appreciate NSF's ongoing efforts to address our recommendations.

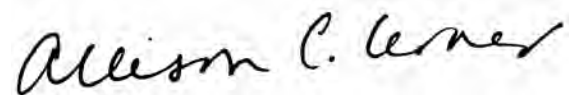
In the past six months, we issued an Alert Memo that underscored serious weaknesses in NSF's cost surveillance measures for awarding and managing cooperative agreements for high-risk, high-dollar large facility projects. Given the critical importance of these projects and the billions of dollars at stake, it is vital that NSF strengthen its end-to-end cost monitoring processes over high-risk cooperative agreements.

Through the use of computer assisted auditing techniques and data analytics, our audit at the University of California, Santa Barbara, questioned more than \$6 million in claimed costs including nearly \$2 million of overcharged summer salaries and approximately \$500,000 of inappropriate costs transfers into NSF awards, among other things. Also, during this reporting period an audit involving a non-profit managing three awards valued at approximately \$3.2 million questioned more than \$527,000, including costs for fringe benefit rates that exceeded the rate approved by NSF and payroll costs that lacked adequate supporting documentation.

Our investigative work recovered over \$1 million for the government from individuals and entities that attempted to fraudulently obtain funds intended for scientific research. We also referred nine cases of research misconduct to NSF, including an assistant professor who exhibited a pattern of plagiarism, a small business official who plagiarized in numerous NSF proposals, and a PI who plagiarized in two NSF proposals.

This report also contains the top management challenges we have identified for NSF in FY 2013. In the wake of the Blue Ribbon Panel Report on Antarctic logistical support and the awarding of the new contract for such support, we have added NSF's management of the U.S. Antarctic Program (USAP) to that list. The panel found that the USAP logistics system is badly in need of repair and that failure to upgrade the system will increase the cost of logistics until these costs squeeze out funding for science. NSF faces the challenge of ensuring that logistical improvements are made and that the systems necessary to support scientific research are sound.

My office is focused on making recommendations to help ensure that NSF spends its research funds in the most effective and efficient manner while maintaining the highest level of accountability, and we are committed to working with the Foundation to strengthen its processes to reach this goal. We look forward to our continued partnership with NSF and with Congress toward the mutual goal of safeguarding taxpayer dollars and advancing vital scientific research.

A handwritten signature in black ink that reads "Allison C. Lerner". The signature is written in a cursive style with a prominent loop at the end of the last name.

- We issued an Alert Memo to NSF to bring attention to serious weaknesses in the Foundation's cost surveillance measures for awarding and managing its nearly 700 open Cooperative Agreements (CAs), totaling nearly \$11 billion. Among other things, NSF uses Cooperative Agreements to construct and fund operations and maintenance of its large facility projects. Since NSF has chosen to use CAs for these high-dollar, high-risk projects, it is imperative that it exercise strong cost surveillance controls over the lifecycle of such ventures. We found that NSF was not conducting audits of awardees' proposed budgets and accounting systems at the pre-award stage, nor was it routinely requiring incurred cost audits post-award. While none of these actions is required by law or regulation, they are essential tools for ensuring accountability in high-risk, high-dollar projects. In their absence, unallowable costs may go undetected. Given the critical importance of the projects NSF funds through Cooperative Agreements and the billions of taxpayer dollars at stake, it is vital that NSF strengthen end-to-end cost monitoring over high-risk Cooperative Agreements.
- An audit of the National Ecological Observatories Network's \$433.7 million proposed construction budget disclosed more than \$154 million in questioned and unsupported costs. Based on the severity of these deficiencies, an adverse opinion was issued stating that the proposal was not prepared in accordance with OMB requirements and did not form an acceptable basis for the negotiation of a fair and reasonable price.
- An audit of NSF awards at the University of California, Santa Barbara, (UCSB) questioned more than \$6.3 million of the costs claimed by the University to NSF because UCSB did not comply with Federal and NSF award requirements. The questioned costs included nearly \$2 million of overcharged summer salaries; over \$2.8 million because UCSB did not fulfill its grant cost share requirements; and approximately \$500,000 of inappropriate cost transfers into NSF awards for costs such as salary incurred after the awards had expired.
- Our investigation involving fraud related to NSF and Department of Education grants led to a former school superintendent in California being ordered to pay more than \$325,000 and being sentenced to prison.
- Our investigative work has identified several areas where the Small Business Innovation Research program is vulnerable to fraud, waste, and abuse, and we have provided a Management Implication Report to NSF based on this work. NSF has acted on a number of the report's recommendations to reduce the risk of fraud in the program

