



**SEMIANNUAL REPORT TO CONGRESS
SEPTEMBER 2008**

**National Science
Foundation**

**Office of
Inspector General**

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 over \$5 billion per year in a portfolio of approximately 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.

Cover photo by Dr. Ken Busch, OIG.

Table of Contents

- OIG Management Activities7**
- Legal Review7
- Outreach7
- Other Matters 11
- Audits & Reviews 13**
- Significant Audits Internal to NSF 13
- Significant Audits of Grants & Contracts 15
- A-133 Audits 19
- Audit Resolution22
- Work in Progress26
- Investigations27**
- Civil & Criminal Investigations27
- Administrative Investigations30
- Research Misconduct Investigations36
- Statistical Data43**
- Appendix55**
- Management Challenges55
- Reporting Requirements63
- Acronyms64
- Awards & Accomplishments65

[Blank Page]



From the Inspector General

This Semiannual Report to Congress highlights the activities of the National Science Foundation (NSF) Office of Inspector General (OIG) for the six months ending September 30, 2008. During this period we issued 11 audit reports with questioned costs totaling \$5,288,102. We also closed out 23 civil/criminal and 35 administrative investigations that recovered \$1,047,170 for the government, while referring nine cases for prosecution. As always, we thank our NSF colleagues for their assistance in helping us to accomplish these excellent results.

As I prepare to retire in January from the National Science Foundation, I want to express my gratitude to the National Science Board for allowing me the privilege of serving the Congress, the administration, and the taxpayers as NSF's Inspector General. During my first year as IG, our entire staff participated in the creation of a strategic plan that has successfully guided our priorities throughout my tenure. Those priorities have been to: focus our investigations, audits, and other reviews on the most significant issues and the highest-risk programs; exercise government-wide leadership in the area of misconduct in research; be proactive in preventing problems before they occur; and ensure that all OIG activities maintain the independence necessary to perform the IG oversight role with integrity and objectivity.

Our office followed the principles presented in the plan, and we take pride in our achievements. Over the past nine years, we have been a strong advocate for improved management of large infrastructure projects and more vigilant post-award administration. I am pleased to report that NSF has made steady progress in these areas. We have also focused attention on several other important management challenges, including the administration of cost sharing, workforce planning, contract administration, and research ethics. With regard to research misconduct, our office has assumed a leadership role within the federal community by founding and chairing the Misconduct in Research Working Group, and internationally as the U.S. representative to the Global Science Forum. In addition, we are one of the few OIGs to invest significant time and resources in an outreach program through which we have engaged our NSF colleagues and the larger research community in an ongoing dialogue about the responsibilities that go along with accepting government funding.

In my view, the accomplishments and reputation of this office were implicitly recognized last year when the OMB Deputy Director for Management appointed me to lead the Executive Council for Integrity and Efficiency (ECIE). The ECIE is comprised of 34 agency-appointed federal Inspectors General. My tenure as Vice-Chair coincided with the passage last month of the IG Reform Act of 2008, the first comprehensive amendment to the original IG Act in two decades. The new law includes measures that further enhance IG independence, while also increasing our accountability to the public. Though many of the inherent difficulties of the Inspector General's role remain, given the natural tension that exists between agency management and a separate overseer, the new law reaffirms the view that IGs best serve their agencies and the nation when their objectivity and credibility are not compromised by a lack of organizational independence.

Finally I would like to thank the many people who have supported me and contributed to the overall success of the OIG. First, there is the OIG staff. I am proud of the dedicated team of individuals who continuously carry out the responsibilities and tasks associated with our complex mission. They do this with the highest standards of professionalism, with high productivity and dedicated perseverance. I thank the

members of Congress for their ongoing support and for their dedicated staff who have worked closely with me to strengthen NSF programs and management. I greatly appreciate the cooperation that the OIG receives from NSF management and staff as the OIG carries out its mission. NSF has many accomplishments and will continue to play a fundamentally important role in the science, engineering, and educational communities. The OIG is a proud partner with NSF as it prepares for the future, striving to enhance the scientific enterprise. Although I previously mentioned the National Science Board, I want to emphasize the support I have received, collectively and from individual members. In its oversight role, the Board shares with the Inspector General the responsibilities for accountability. I greatly appreciate the Board's responsiveness to OIG recommendations. Additionally, I want to express my appreciation to my colleagues in the IG community for their assistance, advice and friendships. I will miss the people. I wish all much future success as government begins its transition to a new administration and faces the many challenges that exist.

Finally I want to express my grateful appreciation to my family and friends who have supported me throughout my career. They have become ardent supporters of Inspectors General, and are avid readers of our Semiannual Reports to the Congress.

With sincere gratitude and great appreciation,



Christine C. Boesz, Dr.P.H.
Inspector General
November 19, 2008

Report Highlights

- An audit found that the terms and conditions included in NSF's cooperative agreements for the management and operation of its large facilities need to be strengthened for NSF to fully ensure its facilities accomplish their programmatic goals and objectives. Only two of the six large facility cooperative agreements reviewed include terms and conditions addressing all four of the primary components of a robust program evaluation and measurement system: 1) clear and agreed upon goals; 2) performance measures and, where appropriate, performance targets; 3) periodic reporting; and 4) evaluation and feedback to assess progress. With NSF's large facilities funded at over \$1 billion annually, it is important that NSF have a process to ensure that all large facility agreements contain each of the four performance evaluation and measurement components. **(See p. 14)**
- The OIG is performing a series of reviews at NSF's top-funded universities to assess the adequacy of accounting and reporting processes for labor costs charged to federal awards. During this reporting period, reviews of two more universities with significant NSF and federal funding were completed and identified significant weaknesses in the documentation, certification and accuracy of labor effort reports supporting approximately \$33 million of research salaries charged to NSF awards. **(See p. 15)**
- Records supporting two awards to the School District of Philadelphia (SDP) were found to be unauditible, as auditors could not determine whether approximately \$13 million of direct and associated indirect costs, and \$3.2 million of cost sharing claimed by SDP were allowable, allocable, and reasonable. This occurred because SDP failed to address significant internal control weaknesses in its financial management of NSF awards first reported in an OIG audit performed in 2000. Due to the significant and repetitive nature of the internal control weaknesses, OIG recommended that NSF make no future awards to SDP until it verified that corrective measures have been implemented. **(See p. 17)**
- A university returned \$283,488 in NSF grant funds that were improperly charged over a five-year period by a PI with personal issues. OIG initiated the investigation based on anonymous allegations that a PI at a Tennessee university misused NSF grant funds by submitting extravagant travel reimbursement requests and questionable supply expenses. A detailed review by our investigators and university auditors and found that some of the travel expenses submitted by the professor were unreasonable, and some purchases appeared personal in nature.

The university determined that many of these unallowable charges were not prevented because department administrators did not stringently supervise her use of grant funds out of concern for her well being. **(See p. 27)**

- A subject who pretended to be an NSF official to lure young women to hotel rooms to carry out “research” agreed to plead guilty of one count of violation of 18 U.S.C. § 912, False Personation of an Officer or Employee of the United States, a felony. Our investigation determined that over 3½ years, the subject placed two dozen advertisements on the internet recruiting people to help with a spurious “research” project in San Francisco. The subject only responded to inquiries from mid-20’s female victims, to whom he sent multiple emails identifying himself (with a false name) as an NSF official. **(See p. 28)**
- An OIG investigation into an allegation of plagiarism, determined that a PI from a South Carolina university, plagiarized material from a proposal he received from NSF for peer review into his own NSF proposal. Based on a review of all the facts, our investigators concluded that the PI purposefully plagiarized a substantial amount of text from the confidential proposal he reviewed, and knowingly plagiarized a small amount of text from one internet source. The Deputy Director: made a finding of research misconduct; debarred the PI for 1 year; required the PI to provide certifications for 3 years after the debarment; and prohibited the PI from reviewing proposals for 3 years. **(See p. 36)**
- OIG’s annual list of the most serious management challenges facing the National Science Foundation appears in the appendix. **(See p. 55)**

OIG Management Activities

LEGAL REVIEW

Program Fraud Civil Remedies Act of 1986

As reported in the past two Semiannual Reports, the 2007 NSF Reauthorization Act, which passed in August 2007, amended the PFCRA to bring the National Science Foundation (NSF) within the statute's coverage. This amendment was supported by both OIG and NSF because it gave the agency authority to use administrative procedures to recover losses resulting from fraud cases under \$150,000 when the Department of Justice declines to prosecute. To take advantage of these provisions, however, the agency must first develop NSF regulations to implement PFCRA. In our last semiannual report, we noted that NSF expected to publish final regulations in early August 2008; to date, however, none have been issued. Until NSF promulgates such regulations, it remains unable to use this powerful tool to recover funds diverted due to fraud and ensure that appropriated funding serves its intended purposes.

OUTREACH

OIG continues to reach out to a broader and deeper audience by partnering with major organizations and associations whose memberships extend across large segments of the research community. Through these organizations, we are able to communicate directly with hundreds of research professionals about: 1) compliance-based operations that promote ethical conduct, and 2) strong accountability of federal research dollars to ensure public confidence and continued support for science. To date, our staff has opened communications with the Association of American Colleges and Universities, the American Association of Community Colleges, the Association of American Universities, the American Council on Education, the Association of Governing Boards, and the National Association of State Universities and Land Grant Colleges. We appreciate the response our message received from these organizations and look forward to working with them to prevent problems in the administration of the research enterprise.

Hotline Survey. Our office also launched an initiative to enhance the effectiveness of our Hotline program, after a recent government survey raised concerns about ethics and the federal workplace. The Ethics Resource Center's National Government Ethics Survey reported that only 30% of federal workers surveyed believe their organizations have well-implemented ethics and compliance programs, and only one in

HIGHLIGHTS

Legal Review	7
Outreach	7
Other Matters	11

10 said there is a strong ethical culture in their agency. The survey also found that confidential whistleblower hotlines, a means for workers to safely report the misdeeds of colleagues or superiors, were not used by most employees who witnessed misconduct. Overall, only 1% of government workers used such hotlines to report misconduct.

OIG decided to conduct its own survey of NSF employees' opinions about our Hotline and to solicit recommendations on how to increase its profile and use among both NSF personnel and the research community. We received numerous suggestions on how to improve both the Hotline and its presentation. Based on the comments received, we have updated our webpage to increase the prominence of the Hotline and to make it easier for even a first-time visitor to our webpage to provide confidential information to our office. We have also asked NSF to include a direct link on its webpage to our Hotline. Highlighting the link will serve two purposes: increase the visibility of the Hotline among those who might use it; and demonstrate to NSF personnel that management is committed to maintaining an ethical workplace. In addition, we have emphasized the use of the Hotline as a topic in our briefings during the NSF new employee orientations. Finally, we drafted an article for inclusion in the NSF Annual Report to Employees, which fully explains the confidential nature of all communications with OIG, including the Hotline, and encourages NSF employees to use one of the many channels available to report any serious concerns.

Working with the International Community

During this semiannual period, the Inspector General participated in international forums addressing issues involving research misconduct and financial accountability. Dr. Boesz presented to the International Network of Research Management Societies in Liverpool England, where she also served as co-host

of an International Workshop on Accountability Challenges. Representatives from 13 countries attended the workshop in which Deborah Cureton, AIG for Audit presented on the Single Audit Act. In her role as U.S. representative to the Global Science Forum (GSF), Dr. Boesz and AIG for Investigations, Dr. Peggy Fischer, attended meetings in Vienna. The GSF is engaged in an ongoing effort to develop common standards for the conduct of research that define plagiarism and data falsification as a prelude to developing a common process for investigation and resolution of research misconduct allegations.



Dr. Boesz and AIGI Dr. Peggy Fischer with other representatives to the Global Science Forum meetings in Vienna.

In addition, other members of OIG participated in numerous meetings and presentations with our foreign counterparts to exchange information and best practices. Members met with and presented to delegations from the European Science Foundation and with Korean scholars participating in the LG Global Challenger Program. In these fora, we explained our processes and oversight procedures and answered questions from our international audiences.

Working with the Research Community

Participation in conferences. We participated in a wide range of workshops, conferences, and other events sponsored by institutions and associations of research professionals, carefully selected to maximize the impact of our outreach efforts. We presented at the Association of College and University Auditors, the Association of Independent Research Institutions, the Association of American Colleges and Universities, the American Association of Community Colleges, the Association of American Universities, and the National Association of State Universities and Land Grant Colleges. Through these presentations to the larger organizations within the research community we sought to disseminate information on best practices, encourage the development of systems and tools to identify, resolve, and prevent the occurrence of misconduct or mismanagement within the research enterprise.

Presentations at universities. We continue to receive many invitations to present at, and provide training to, universities and other organizations associated with the research enterprise. We addressed numerous groups that were involved in either applying for or administering NSF awards, performing supported research, or conducting university-level inquiries into allegations of research misconduct. We also presented to faculty and administration officials involved in the conduct of research misconduct inquiries and investigations at two universities. During each of these outreach events we shared best practices on the enhancement of compliance and ethics programs, answered questions, addressed relevant issues, and provided fact sheets, brochures, posters, and other outreach material.

Working with the Federal Community

Assistance to Congress. During this semiannual period, the NSF Inspector General, who is also Vice-Chair of the ECIE, provided advice to Congress on behalf of the IG community about pending legislation to strengthen federal OIGs. These efforts came to fruition when Congress passed the Inspector General Reform Act of 2008 which promises to make the institution of Inspector General more independent and effective in combating waste, fraud and abuse.

In preparation for hearings on open public access to federally funded research, OIG and Congressional staff discussed OIG audits on the dissemination of its research results and NSF's response to the audit recommendations. OIG staff explained that NSF is now linking scientific journal article citations to NSF's database of award abstracts describing the intended purpose of the research.

Assistance to OMB. OIG provided assistance to OMB in several areas. Staff have actively participated in one of the eight workgroups established by OMB to improve the quality of future Annual Single Audits which federal agencies rely on to ensure grant funds are spent properly (see page 21). In addition, staff are involved in OMB-sponsored workgroups to update OMB Circular A-50, *Audit Followup*, and have provided comments on draft revisions to OMB Circular 136 *Financial Reporting Requirements* and OMB Circular A-127, *Financial Management Systems*.

OIG activities. A committed member of the federal Inspector General community, our office provided both leadership and active participation to numerous OIG initiatives. The Inspector General, who is Chair of the PCIE/ECIE Misconduct in Research Working Group, continued to coordinate efforts within the IG community to identify, investigate, and prevent research misconduct. The AIGI participated in the National Academy of Science Responsible Conduct of Research Workshop. Other OIG staff continued to participate in the Association of Directors of Investigation, the PCIE Inspections and Evaluation Committee, and the PCIE GPRA Roundtable.

In addition, the AIGA co-chairs the Financial Statements Committee of the Federal Audit Executive Council (FAEC). The FAEC Financial Statement Audit Network has worked with the Government Accountability Office to revise the *Financial Audit Manual* (July 2008) to address changes in the Federal financial reporting system and the accounting and auditing standards issued by the American Institute of Certified Public Accountants (AICPA), and the Federal Accounting Standards Advisory Board. An NSF OIG Senior Audit Manager will accept an award in October on behalf of ECIE staff who worked on this substantial project.

Our expertise in the area of grant fraud investigations allowed us to continue to make significant contributions towards federal efforts to limit such misconduct throughout the government. We participated with other OIGs in numerous events and initiatives aimed at combating grant fraud. These included the Grant Fraud Subcommittee of the Department of Justice National Procurement Fraud Task Force and the National Procurement Fraud Working Group. During the past year we worked with the Federal Law Enforcement Training Center to develop a grant fraud investigation training program, and in this semiannual period, we provided instructors for two iterations of that training program. We also participated in the Regional Procurement Fraud Working Group.

We frequently met and worked with individuals from a number of other federal agencies and Offices of Inspectors General on a host of professional matters. These included events in conjunction with the Inspector General Academy, the Federal Law Enforcement Training Center, the Office of Science and Technology Policy, the Department of Justice, the Department of Health and Human Services, and the Government Accountability Office. Finally, we held discussions with OIGs from the Social Security Administration, the Export-Import Bank of the United States, the Department of Energy, the Federal Communications Commission, and the Denali Commission.

Working with NSF

National Science Board. During this semiannual period, we made several presentations to the National Science Board. Through these regular briefings, OIG is able to keep the leadership of NSF informed of matters of importance, necessary for the effective oversight of agency operations. Topics included the NSF Financial Statement Audit, ongoing labor effort audits, and the status of specific ongoing investigations. In addition, we presented to the Board's Executive Officer and staff on the requirements of the Sunshine Act.

Agency outreach. We have also continued our extensive outreach to NSF, primarily through our NSF liaison program. Our liaison teams (generally one investigator and one auditor) served as valuable conduits of information between our offices in the course of approximately 17 liaison events. In addition, we participated in NSF's New Employee Orientation program, through which we introduce OIG's mission to every "class" of new NSF employees coming into the agency. We explain how we can work together to enhance the integrity of NSF programs and operations.



In addition to the orientation of new employees, OIG and NSF staff collaborate in a number of areas. We actively participated and present at Program Management Seminars, which provide new NSF staff with more detailed information about the Foundation and its activities. These sessions are synergistic, in that they provide OIG staff with an opportunity to develop professional relationships and to learn about new developments within NSF program management, while educating our NSF colleagues about the mission and responsibilities of OIG. We continue to participate in NSF's Regional Grants Conferences and other events, such as NSF's Joint Annual Meeting for HRD PIs. Finally, we regularly participate in an internal media communication effort within NSF, in which we explain the OIG mission and responsibilities.

Dr. Boesz and Dr. Patricia Galloway, NSB Vice-Chair, visit Poker Flat Research Range near Fairbanks, Alaska during a recent Board meeting.

OTHER MATTERS

OIG Seeks Reimbursement Due for Audit of NSF Award to the U.S. Civilian Research and Development Foundation

In July 2006, as part of the NSF's Directors Audit Priorities, NSF requested that the OIG initiate an audit of the NSF cooperative agreement provided to the U.S. Civilian Research and Development Foundation (CRDF), a non-profit organization authorized by Congress after the Cold War to support research in the independent states of the former Soviet Union. While the statute allows for the OIG to be compensated for periodic program and financial audits from interagency funds provided for this cooperative agreement, the OIG has not been reimbursed for this audit.

Since 1995, other federal agencies and a private foundation have funded 89 percent of the \$140 million awarded to CRDF; approximately 70 percent has been provided by the U. S. Department of State. Under its interagency agreement, NSF is responsible for administering and monitoring the financial and programmatic performance of the CRDF award on behalf of the Department of State. To cover NSF's internal costs, the interagency agreement provides the agency with an administrative fee as part of the funds transferred for the CRDF award. Beginning in 2003, Congress also allowed for the transferred funds to cover the costs of OIG audits of the CRDF award.

Although NSF has received almost \$3 million in administrative fees for handling the CRDF award since 1995, and legislation specifically allows for OIG recovery of audit costs, the agency has decided not to reimburse OIG for the \$200,000 cost of the audit conducted at its request. NSF maintains that the audit should be funded from OIG appropriations. NSF later requested supplemental funds from the State Department to pay for the audit, but was told that State considers the audit costs to be part of the administrative fee, and therefore the responsibility of NSF.

The OIG will continue to try to resolve this issue with NSF. As the agency increases its volume of interagency awards, it will be difficult for the OIG to provide audit coverage of these other grants without additional budgetary resources and/or a mechanism to recover its costs from NSF's administrative fee.