

National  
Science  
Foundation



Office of  
Inspector  
General



# Semiannual Report to Congress

March 2008

### ***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.

### ***About the Cover...***

Under the Antarctic Ice -- A jellyfish, species *Diplulmaris Antarctica*, floats with the current just offshore of McMurdo Station, Ross Island. This species is generally found in Antarctica and the Antarctic Peninsula near the surface in continental shelf waters. The Antarctic waters are teeming with species of fish and other sea creatures like urchins, brittle stars and sea stars, jellyfish and sponges, worms and spiders, krill and shrimp, as well as marine mammals and penguins, to name a few. Credit: Steve Clabuesch, National Science Foundation

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## From the Inspector General

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This Semiannual Report to Congress highlights the activities of the National Science Foundation (NSF) Office of Inspector General (OIG) over the six months ending March 31, 2008. During this period, we issued 14 audit reports with questioned costs of \$840,490. Our investigators closed 30 civil/criminal cases, 31 administrative cases, and recovered \$1,513,135 while making 11 referrals for prosecution. As always, we are grateful to our agency colleagues for their assistance and cooperation in attaining these results. More about OIG's accomplishments over the past year can be found in our annual performance report on page 47.

Among the significant findings that appear in this report are the results of three new audits of labor-effort reporting systems at large universities, part of a series of audits planned to examine this important grant management issue. Our auditors continue to find that the systems they review lack effective controls for certifying labor effort and may fail to account for the actual time worked on the grants. This is a significant cause for concern because in FY 2006, charges to salaries and wages for NSF grants totaled \$62 million. The auditors' specific findings and recommendations are presented on pages 15-17. At another university, our investigators found two unrelated instances of credit card abuse and worked with the FBI and federal and state prosecutors to indict the two individuals responsible. In total, the two are alleged to have improperly charged \$489,000, most of it to NSF awards. The facts uncovered by these investigations are described on pages 27-28.

Lastly, I appreciate the cooperation that the OIG is given by NSF management, staff and the many awardees that benefit from NSF funding. They too share the responsibility of safeguarding public resources that are invested in science and engineering research and education. I would also like to acknowledge the contributions of eight key members of the National Science Board whose terms expired in May 2008. I thank those members for their service to the Board and their support for my office in our efforts to promote efficiency and strengthen the integrity of NSF programs. The members are: Dr. Barry Barish, Dr. Ray Bowen, Dr. Kenneth Ford, Dr. Daniel Hastings, Dr. Karl Hess, Dr. Elizabeth Hoffman, Dr. Douglas Randall, and Dr. Jo Anne Vasquez.

Christine C. Boesz, Dr.P.H.  
Inspector General  
March 2008

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# Report Highlights

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- An audit of NSF's FY 2007 financial statements resulted in an unqualified opinion but repeated the prior-year significant deficiency on contract monitoring and also identified a significant deficiency related to property, plant, and equipment. Separately, the FY 2007 Management Letter used to communicate issues of concern arising from the financial statement audit identified nine findings. **(See pp. 11-13)**
- A recent audit of NSF's controls over its eight research center programs found that NSF could enhance its management and oversight by developing and issuing written policies and establishing a forum for its program officers to share best practices. The eight center programs, engaged in fields of research such as nanoscale technology, engineering, and the science of learning, funded 99 individual research centers for a total of approximately \$250 million in fiscal year 2005. **(See p. 13)**
- Reviews of labor effort reporting systems at three universities found that they each lacked effective and timely controls for certifying labor effort, resulting in decreased assurance that \$62 million of salary and wages charged to NSF in FY 2006 reasonably reflected actual time worked on NSF sponsored projects. **(See pp. 15-17)**
- In two unrelated cases at the same university, an accountant and a program coordinator were each indicted for using purchase cards (P cards) to pay for personal purchases. Combined, the two are alleged to have improperly charged \$489,000, most of it to NSF awards. **(See pp. 27-29)**
- NSF terminated an education award and debarred the PI for making false statements in his proposal claiming the participation of a particular collaborator who had declined to be involved. The termination of the award enabled NSF to put \$1.25 million to better use. **(See p. 28)**
- OIG and university investigations concluded that a student, who was receiving funds through an NSF award to her advisor, fabricated the underlying data for graphs presented to her thesis committee at a Washington university. The student was found to have improperly used "correction factors" to achieve the results she desired in an effort to demonstrate their validity. **(See p. 33)**
- The 2007 OIG Performance Report summarizes the progress made over the past year in achieving our three goals: 1) to promote NSF efficiency and effectiveness; 2) safeguard the integrity of NSF programs and resources; and 3) utilize OIG resources effectively and efficiently. **(See p. 47)**

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# OIG Management Activities

## Legal Review

### Program Fraud Civil Remedies Act of 1986

As we reported in our last Semiannual Report, the 2007 NSF Reauthorization Act, which passed in August 2007, amended the Program Fraud Civil Remedies Act (PFCRA) to bring the National Science Foundation (NSF) within the statute's coverage. With this amendment, the agency now has authority to administratively recover losses resulting from fraud cases under \$150,000 when DOJ declines to prosecute. We understand that NSF is currently drafting regulations to implement PFCRA and OIG expects that final regulations will be published by early August. Once implemented, PFCRA will provide the Foundation with a valuable and important opportunity to protect appropriated dollars and to ensure such funds serve their intended purposes.

## Outreach

During this semiannual period, we sought to maintain essential outreach contacts with major institutions, national and international research organizations, and other federal agencies and their OIGs. Challenged by budget constraints, we managed to achieve greater economies in our outreach efforts while making it easier for the communities we serve to interact with OIG. We updated our website to include significant outreach presentations, and created new informational material for distribution throughout NSF and the research community.

Our efforts to encourage the research community to adopt compliance-based programs<sup>1</sup> at every research institution continued throughout this semiannual period. We presented at outreach events attended by university officials, research administrators, PIs, students, post-doctoral students, and international funding agencies, in an effort to explain the significant value of such programs and the needless risks that are assumed when universities and other members of the research community fail to develop and implement appropriate compliance programs. For this reason, interest in compliance programs continues to increase throughout the research community. In addition, the definition of responsible conduct in research is expanding to include elements of professional development necessary to produce a well-rounded

<sup>1</sup> Compliance programs are a set of policies or actions taken by an institution to enhance operational integrity and ensure that federal research funds are properly handled.

professional researcher. These positive developments provide encouragement to those interested in the establishment and maintenance of a research environment where compliance and ethical conduct are the norm.

During this semiannual period, an article written by OIG staff members was published in *The Journal of Public Inquiry*, a publication read widely within the community. The article described the positive impact compliance programs can have on research institutions and organizations. It also highlighted the benefits to the institution of taking the initiative to develop such programs tailored to its particular risks, rather than taking a chance of having a more comprehensive compliance program imposed on it in the aftermath of a civil/criminal investigation.

## **Working with Other Nations**

The Inspector General continued to participate in international forums addressing the identification, prevention, and handling of instances of research misconduct. Dr. Boesz hosted a meeting of the Global Science Forum (GSF) at the National Science Foundation on December 3 and 4. Ongoing efforts to develop common principles for investigation and resolution of research misconduct allegations with international implications remained an important focus of these meetings. Representatives of 18 countries, the European Commission, and the Organization for Economic Cooperation and Development (the GSF's sponsoring organization) attended the meetings.

In addition, OIG staff made presentations to or held discussions with delegations from the European Science Foundation, the U.S.-Israeli Bi-National Science Foundation, the Irish Health Research Board, the Korean Board of Audit and Inspection, and the Chinese Ministry of Science and Technology, to provide their expert opinions and personal insights concerning the oversight of scientific research and science funding.

## **Working with the Research Community**

OIG personnel sought out the most valuable opportunities from among the wide range of workshops, conferences, and other events sponsored by institutions and associations of research and university professionals, such as the Society of Research Administrators, the Rutland Institute for Ethics, and the National Council of University Research Administrators. We also visited with faculty, students, and administrators at eight universities. Through these presentations we sought to educate the community on best practices and to encourage the development of systems and tools to identify, resolve, and prevent the occurrence of misconduct or mismanagement within the research enterprise. In addition, in recognition of the fact that 50% of all undergraduates attend community colleges, we crafted and provided a presentation directed at community colleges to encourage them to incorporate ethics and compliance training into their curricula.

## Working with the Federal Community

During this semiannual period, NSF OIG personnel interacted with their counterparts in the federal community, including federal agency OIGs, in a number of capacities. We hosted a very successful Grant Fraud Training Program, in which more than thirty agencies were represented by over 125 investigators who attended. Our expertise in the area of investigations of grant fraud and research misconduct enabled us to continue to make significant contributions toward federal efforts to limit fraud and misconduct. We participated in numerous events and initiatives established to coordinate the efforts of those fighting against grant fraud and research misconduct, including:

- *The Grant Fraud Subcommittee of the Department of Justice National Procurement Fraud Task Force*
- *The Federal Law Enforcement Training Center*
- *The Eastern District of Virginia Regional Procurement Fraud Working Group*
- *The PCIE/ECIE Misconduct in Research Working Group, chaired by the NSF IG*
- *The Investigations Subcommittee of the PCIE Information Technology Committee*

In addition, we met with representatives from Office of Management and Budget to provide comments on best practices for coordinating federal financial statement audits, and on revisions to OMB Circular 136 *Financial Reporting Requirements* and discussed actions NSF has taken in response to Single Audit (OMB Circular A-133) findings. We also actively participated in the GAO/President's Council on Integrity and Efficiency (PCIE) workgroup to update the *Financial Audit Manual* and continued to participate in the PCIE Inspections and Evaluation Committee, the PCIE GPRA Roundtable, the Federal Audit Executive Council, the Single Audit Roundtable, and the Financial Statement Audit Network.

## Working with NSF

A surprising finding in the 2007 National Government Ethics Survey reported that only two percent of federal government employees made use of whistleblower hotlines. In order to increase awareness of our hotline within NSF, we created an electronic advertisement to provide information to potential whistleblowers. Shown in all common areas throughout the agency on a repeating basis, the advertisement highlights the value and availability of our hotline and reminds employees of the confidentiality and anonymity it provides.



Assistant Attorney General Alice Fischer addresses the Grant Fraud Training Program sponsored by NSF OIG.

Through regular presentations to the National Science Board and senior NSF officials, OIG keeps the leadership of NSF informed of audit and investigative matters of importance for the oversight of agency operations. In addition, we have provided input to NSF on important new initiatives. For example, in January 2008 audit staff met with the coordinator of NSF's draft Human Capital Strategic Plan to discuss NSF's human capital goals and its workforce and succession plans. We have also continued our extensive liaison outreach to NSF staff and programs.

We continue to participate in NSF's Regional Grant Conferences and its Program Management Seminars, which provide new NSF staff with detailed information about the Foundation and its activities. The Seminars provide OIG staff an opportunity to develop personal and professional relationships with their NSF colleagues, while educating them about the mission and responsibilities of NSF OIG. Our staff serve on various NSF committees such as the NSF Student Loan Repayment Working Group, and remain active in NSF-sponsored activities.

We recently began participating in NSF's New Employee Orientation Program, presenting to every "class" of new employees coming into NSF. These twice-monthly orientations provide us an opportunity to introduce employees to the OIG, to communicate to them how we can work together to enhance NSF programs and operations, and to ensure that they understand the channels through which NSF employees can bring matters to our attention. We thank NSF's Human Resources Office for the opportunity to participate, and look forward to a fruitful relationship between our offices.

# Audits & Reviews

In this semiannual period we completed the required audit of NSF's fiscal year 2007 financial statements, an audit of NSF's oversight of its eight research center programs, and an assessment of certain National Science Board (NSB) policies and procedures governing its ad hoc business activities. In addition to these internal audits of NSF, we completed seven audits on NSF's awardee institutions, including reviews of purchase cards, labor effort reporting and other grants management procedures at a federally funded research and development center, three universities and three non-profit organizations. We also reviewed 97 annual single audits of NSF awardees that reported a total of 150 findings. Finally, in the last six months we worked with NSF to resolve findings and recommendations in five audits completed in prior periods. Work continues on audits of the adequacy of the information NSF collects from its research centers, the sufficiency of its cooperative agreements for large facility projects, its handling of personally identifiable information, and its audit resolution policies and practices.

## Significant Internal Reports

### ***FY 2007 Independent Auditors Issue Unqualified Opinion, Cite Need for Improved Contract Oversight and Accounting for Property***

During this reporting period we completed an audit of NSF's Fiscal Year (FY 2007) financial statements, as required by the Chief Financial Officers Act. Under a contract with OIG, Clifton Gunderson LLP issued an unqualified opinion but repeated the prior-year significant deficiency on contract monitoring and also identified a significant deficiency related to property, plant, and equipment.

In FY 2007, NSF expended approximately \$551 million on active contracts and interagency agreements. Of this amount, \$212 million was disbursed through advance payment programs with three contractors, including \$148 million for logistical support of the U.S. Antarctic Program. The auditors reported that NSF's procedures were not adequate to ensure that contractors used NSF funds consistent with the objectives of the contract. The auditors recommended that NSF: (1) expand the contract oversight program to include comprehensive post-award monitoring policies and training to ensure that the requirements of the contracts are met; (2) implement guidance to ensure that a thorough review of the contract folder is performed and that documentation is complete; (3) continue to review the contractors' Quarterly Expenditure Reports supplemented with additional testing on higher risk contracts to

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identify unreasonable and unrelated costs; (4) resolve the outstanding OIG audits of NSF's largest contractor for FY 2000-2004; (5) implement a system to track the status of invoices from receipt to payment processing; and (6) provide training to all employees responsible for the acceptance of services and/or goods.

NSF relied extensively on its contractor to manage and account for the approximately \$225 million of real property needed to carry out research activities in the Antarctic. The contractor and NSF used numerous, nonintegrated systems and manual processes to account for property. In addition, the auditors encountered difficulties in obtaining supporting documentation for property transactions from the contractor; identified errors in testing; and found NSF's accounting for freight costs to be complex and at risk for error because of its manual nature. The auditors recommended that NSF: (1) continue to validate a sample of asset acquisitions and disposals each year; (2) periodically confirm with the contractor the status and availability for use of property under construction; (3) develop a plan to implement an integrated entity-wide property management system that would fully automate the recording, tracking, and analysis of all property accounting processes; (4) consider incorporating a requirement in the upcoming United States Antarctic Program (USAP) contract solicitation for the contractor to provide an accounting system for property, plant, and equipment in the Antarctic to support the entity-wide system; and (5) implement procedures to streamline the freight cost calculation and improve the accuracy and timeliness of reporting transportation costs to the Antarctic.

In February, NSF submitted its proposed action plans to address the recommendations. The proposed corrective actions were reasonable and generally responsive. NSF proposed an alternative approach to resolve the recommendation on implementing a system to track the status of contractor invoices. However, NSF did not address developing a plan to implement an integrated property management system or incorporating a requirement in the upcoming USAP solicitation for the contractor to provide an accounting system for USAP property. Rather, NSF proposed to document and test system controls before determining future actions. The OIG and Clifton Gunderson will continue working with NSF management to ensure that these issues are resolved.

### ***Management Letter Cites Need for Improved Post-Award, Contract Monitoring, and Property Accounting Practices***

The FY 2007 Management Letter identified nine findings, some of which incorporated elements of prior years' findings related to NSF's operations and financial reporting controls.<sup>2</sup> The Management Letter reported continuing weaknesses in NSF's grants processing and documentation. For example, the auditors found late grantee annual project reports, late final project reports, incomplete documentation in NSF's monitoring files to support the results of its oversight reviews, and lack of follow-up on corrective actions for desk review findings. Once again, the auditors recommended that NSF revise its Site Visit Review Guide to provide specific guidance for documenting the review steps, the closure of site visit recommendations, and any delinquency letters to the

<sup>2</sup> Auditors issue a management letter to separately communicate findings arising from the financial statement audit that are not reported in the audit report but are still important to ensuring a sound overall internal control structure and require management's attention.

grantees. The auditors also recommended that NSF issue site visit reports and letters timely and revise the desk review protocol to establish a deadline for follow-up on corrective actions with grantees.

The auditors reported a new finding related to reporting property, plant, and equipment. A physical inventory of USAP real property and construction in process and a reconciliation of the physical inventory listing to the general ledger were not performed, which could allow errors in property accounts to remain undetected. The auditors recommended that NSF review real property assets once a year to identify assets that are permanently impaired, prepare a journal entry to write-off such assets, perform an annual physical inventory of real property, and reconcile the property inventory listing to the general ledger.

NSF management generally concurred with a number of the recommendations in the Management Letter. In some instances NSF is developing alternative approaches to resolve the findings. For those recommendations that NSF did not agree with, the OIG and Clifton Gunderson will continue to work with NSF management to either reach resolution or to assess whether any further recommendations are necessary. The FY 2008 financial statement audit will evaluate NSF's actions in response to the findings and recommendations to determine whether these issues have been adequately addressed.

### ***Policy for Overseeing Research Center Programs Should Be Formalized***

A recent audit of NSF's controls over its eight research center programs found that NSF could enhance its management and oversight by developing and issuing written policies and establishing a forum for its program officers to share best practices. The eight center programs fund individual research centers in fields such as nanoscale technology, engineering, and the science of learning. These eight research center programs funded 99 individual research centers for a total of approximately \$250 million in fiscal year 2005.

The audit found that the NSB and NSF senior management had issued a set of principles and general guidance for center programs that provided a broad framework to ensure effective management, oversight, and accountability. Nevertheless, the eight center programs did not consistently follow this guidance, leading to differences among the programs in important areas such as strategic planning, reporting requirements, funding levels, and duration of NSF support. In addition, NSF had not incorporated the guidance into its written agency policies and procedures for NSF center program managers. Without written policies, NSF is at risk of not having effective management and oversight practices to ensure the center programs meet their goals.

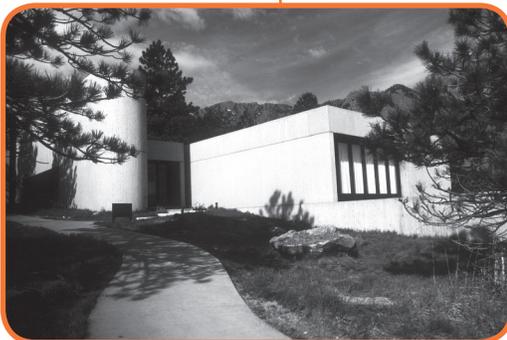
The audit recommended that NSF develop and issue a written policy for its center programs that includes the NSB's and senior management's framework of principles and guidance and explains NSF's expectations of how center programs are to use this framework. The audit also recommended that NSF reinstitute a forum through which center program managers can identify and exchange promising practices as well as discuss common issues. NSF agreed with our findings and recommendations

## ***The NSB Clarifies its Processes and Procedures for Conducting Ad Hoc Business Activities***

At the request of the National Science Board Chairman, we performed an assessment of the policies, procedures and guidance governing the circumstances surrounding the June 2007 signing of a ceremonial Joint Statement of Understanding between the NSB Chairman and the Governor of Hawaii expressing mutual support for Science, Technology, Education and Mathematics (STEM) education. We found that the NSB did not violate any existing policies, procedures, or guidance for conflict of interest, open meetings, or internal NSB practices. However, we did recommend actions the NSB could take to improve its policies and procedures, including developing a process for how it conducts impromptu business outside of its regularly scheduled meetings, and defining the roles and responsibilities of the NSB Chairman. The NSB has taken steps to implement all of our recommendations.

## **Significant Grant Audits**

### ***Federally Funded Research Center Needs to Improve Controls over Purchase Card and Timekeeping Systems***



The Fleischmann Building, designed by I.M. Pei, is the headquarters of the University Corporation for Atmospheric Research (UCAR). Copyright: UCAR

Concerned that serious internal control deficiencies may exist in the University Corporation for Atmospheric Research's (UCAR's) purchase card program after fraudulent use was investigated, the OIG audited UCAR's purchasing and payroll systems. UCAR, a consortium of over 100 university members and affiliates, receives over 90 percent of its funding from NSF and other federal agencies.

Our audit found that while the internal control structure for UCAR's purchase card program contained some basic elements of an effective internal control system, it was not always implemented or effective in preventing or detecting fraud. Although UCAR has revised its purchase card policy and addressed many of the significant deficiencies that existed at the time of the fraud, further improvements are needed to ensure that the \$5 million of goods and services purchased annually with UCAR purchase cards are for authorized business purposes. We recommended that UCAR 1) develop policies and assign responsibilities for implementing a refresher training plan for using purchase cards, 2) conduct random checks to assess whether purchases were proper and approved by cardholders' supervisors, 3) periodically perform risk assessments to identify potential risks in the purchase card program, and 4) perform inventories on purchased items costing less than \$5,000, which are susceptible to theft.

Furthermore, at the time the fraud occurred, UCAR did not have an internal auditor on staff, a position that was left vacant for a five-year period. An internal auditor may have identified the need for improved controls over purchase cards in time to prevent or reduce UCAR's vulnerability to fraud. UCAR has recently hired an internal auditor.

We also evaluated whether UCAR salaries and wages were properly and accurately charged to federal awards. The audit found that UCAR employees 1) were not recording all of their worked hours, 2) charged budgeted rather than actual hours, 3) earned and used unrecorded compensatory time (although UCAR does not officially allow compensatory time), and 4) inaccurately recorded their time as worked when they were on leave. Furthermore, UCAR did not have detailed written justification to support over 80 percent of the sampled labor costs UCAR transferred between awards. Without a reliable basis of support, UCAR's \$58 million of labor costs charged to NSF and other federal agency awards are at risk of not being accurately allocated. UCAR needs to develop a timekeeping system to accommodate all hours worked by salaried employees, provide its employees specific guidance on timecard completion, and provide more oversight of accounting for leave and transferring of labor costs between awards.

UCAR agreed with most of the audit findings and recommendations but did not believe it would be cost effective to conduct periodic inventories of items purchased under \$5,000, which are vulnerable to theft. We affirmed our position that conducting inventories, even if at a minimal level, is necessary to prevent and deter instances of theft.

### ***Processes for Certifying Labor Charges on NSF Awards Should be Strengthened***

As noted in previous semiannual reports,<sup>3</sup> 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 at three universities found the labor effort reporting systems at each lacked effective and timely controls for certifying labor effort, resulting in decreased assurance that \$62 million of salary and wages charged to NSF in FY 2006 reasonably reflected actual time worked on NSF sponsored projects. A similar concern exists for the salary portion of the \$580 million of costs charged to the universities' other federal grants.

#### **University of California, Berkeley Needs to Ensure Reasonableness of NSF Labor Charges**

The University of California, Berkeley's (UCB's) labor effort certifications did not always ensure that salary and wages charged to NSF awards reasonably reflected actual work performed on sponsored projects. Specifically, we found that for 8 of 30 employees tested, representing 14 percent of the NSF salary charges reviewed, UCB did not have appointment letters documenting employee institutional base salary rates, improperly charged employee work activities to NSF grants, and/or did not have "suitable means of verification" that the work effort charged was actually performed. Furthermore, 44 of 56 labor effort reports

<sup>3</sup> March 2007 Semiannual Report, p. 18.

reviewed (representing 61 percent of the NSF salary charges reviewed) were either certified after the university-established due date or had inadequate documentation to determine the certified date.

As a result, we identified \$103,637 of salary costs charged to NSF (12 percent) that lacked adequate documentation to validate the reliability of actual employee labor effort. Furthermore, UCB inappropriately charged NSF \$15,543 (2 percent) in salaries for employee activities not directly benefiting NSF-sponsored projects. The systemic nature of the control weaknesses raises concerns about the reasonableness of the remaining \$25 million in annual labor costs charged to NSF projects.

Given the University's decentralized organizational structure for grants management, UCB needs to establish detailed written guidance for all labor effort processes to ensure full compliance with federal requirements, provide training to all staff involved in the labor effort certification process, and monitor department-level compliance with established labor effort policies and procedures. To comply with federal standards, UCB also needs to perform an independent internal evaluation of its labor effort reporting system to ensure its effectiveness. In general, the University agreed to implement the audit recommendations and believed its new web-based Effort Reporting System will address many of the cited control weaknesses.

### **University of Illinois at Urbana-Champaign Should Utilize Employee Workload Information During Labor Effort Certification Process**

An OIG review of the University of Illinois, Urbana-Champaign (UI) found that UI needs to improve the reliability of after-the-fact confirmation of actual salary charges to federal awards. While the University's labor distribution system accounts for 100 percent of each employee's work activities, UI does not provide such information to certifying officials during the certification process to ensure that labor costs charged to NSF grants are reasonable and equitable relative to the employee's other sponsored and non-sponsored activities. In addition, certifying officials approved 49 of 77 labor confirmation reports, representing 61 percent of the NSF salary charges reviewed, after the University-established due date. As such, there is an increased risk that a portion of the \$29 million of annual salary costs could be misallocated to NSF projects, as certifying officials do not have complete or timely supporting documentation.

Although employee workload information was available, the university did not believe that certifying officials needed such information to correctly certify the reasonableness of direct labor charges to NSF-sponsored projects and therefore did not have procedures requiring its distribution or use. In addition, UI did not have written policies or procedures regarding timely completion of labor confirmation reports and had not assigned clear accountability to ensure reports were timely reviewed and certified. Further, the University had not performed the federally-required independent internal evaluation of its labor effort reporting system. We made recommendations to improve the effectiveness and timeliness of UI's labor confirmation process, which the University generally agreed to implement. UI also noted in its response that it is currently developing a new web-based electronic labor confirmation system.

## **Significant Changes in Employee Salary Distributions to NSF Awards Require Timely Recording at University of Utah**

The University of Utah (Utah) needs to enhance its written policies and procedures to provide clear and comprehensive guidance for a labor effort reporting system that is fully compliant with federal regulations. Our review of 30 employees disclosed that, lacking clear guidance, the University had certified 51 percent of its salary charges to NSF late; had not appropriately recorded significant changes in estimated labor causing a redistribution of 25 percent of actual salary charges allocated to NSF projects; and certified two percent of the salaries without “suitable means of verification” to validate the actual labor effort expended. Without timely or appropriate controls for certifying labor effort reports, NSF has less assurance that the \$8 million of annual salary and wages reasonably reflect actual hours worked on NSF sponsored agreements.

These weaknesses occurred because Utah had not updated its labor effort procedures in recent years to establish clear, concise, and well-documented guidance to ensure full compliance with federal requirements. Also, the University had not performed the required independent internal evaluation to ensure that the labor effort reporting system was effective, forfeiting an opportunity to identify and address needed improvements. Utah generally agreed with all the audit recommendations, agreeing to make changes to its policy and procedures to improve its internal control structure for administering and managing its labor effort reporting system.

## ***Audits of Three Non-Profits Find \$808,383 Questioned Costs and Non-Compliance with Licensing, Appropriations, and Accounting Requirements***

During this semiannual period, auditors reported internal control weaknesses at three non-profit organizations. Among their findings, they identified \$808,383 of questioned costs and specific instances of non-compliance with federal appropriations law, a Canadian licensing requirement, and federal accounting regulations. In each case, we recommended that the grantee institute policies and procedures to strengthen its internal controls and ensure future compliance with applicable requirements.

## ***Grantee Claims \$775,939 in Advance of Incurring Expenses to Avoid Losing Funds Set to Expire***

An audit of WGBH Foundation, a non-profit television production organization questioned \$808,383 of the approximately \$9.4 million in total costs claimed on five NSF awards. WGBH did not comply with either NSF or its own policies when it claimed costs on one award that it had not yet incurred. WGBH claimed \$775,939 for future employment and rental contract costs that, while allocable to and in support of the NSF project, were not valid for the period in which they were charged. Further, the NSF appropriation supporting the grants expired prior to WGBH receiving and paying for the contracted services. Therefore, WGBH claimed costs that, under federal law, were no longer available to NSF for use in supporting the WGBH grants. WGBH claimed these costs in advance

to prevent losing access to these expiring funds. Auditors also questioned a total of \$25,707 in salaries, wages, fringe benefits, other direct costs and indirect costs that did not relate to or benefit the NSF awards and \$6,737 in travel, other direct costs and indirect costs that did not have adequate supporting documentation.

In addition, the auditors found that WGBH did not have controls in place to ensure that 1) proper documentation was maintained to support all award charges; 2) charges were recorded accurately on all NSF awards; 3) service center charges were reviewed to ensure actual costs were charged; or 4) sub-award expenditures claimed in foreign currency and paid for in U.S. dollars were monitored and reconciled.

WGBH believes that it had NSF's consent in claiming the \$775,939 of future costs and therefore disagreed with these questioned costs. However, it reported instituting procedures for annual reviews of service center charges and hiring a new accounting manager to better ensure future compliance with grant requirements.

### ***SRI Jeopardizes Radar Project by Failing to Timely Renew Licenses and File Complete Reports with Canadian Authorities***



The EPCO building at Resolute Bay Observatory is located at Cornwallis Island in the Canadian Arctic. Credit: SRI Intl.

A financial audit of \$30 million of costs claimed on an NSF cooperative agreement with SRI International, a non-profit research institute, to design, construct, and deploy the Advanced Modular Incoherent Scatter Radar (AMISR), found that the costs claimed were allowable and conformed with federal and award requirements. However, SRI had not requested and/or maintained all annual licensing renewals

required by Canadian authorities to conduct scientific research activities at the Resolute Bay Observatory, on a timely basis. In addition, SRI did not keep Canadian authorities fully apprised of the scientific research activities performed on the AMISR project through its annual license renewal reporting process, or obtain NSF review and approval of all agreements with the Canadian authorities as required by its agreement.

SRI's lack of a written policy and procedure for obtaining license renewals and its misunderstanding of the license renewal process and requirements contributed to SRI's noncompliance with the requirement to maintain timely license renewals. Lacking a proper license due to untimely renewals, there were periods of time when SRI did not have permission from the Canadian authorities to conduct any scientific research at its observatory, including activities for the AMISR project, because they were not reported to the Canadian authorities in the annual report. As a result, SRI and NSF run the risk of poor government relations with Canadian authorities and the local community of Resolute Bay, loss of property rights to the AMISR project, project delays, and increased project costs.

We recommended that SRI establish and implement written license renewal

policies and procedures, obtain and maintain the required international Scientific Research License renewals needed for all NSF projects, and coordinate the license application process with NSF as required in the award agreement. SRI agreed with all our recommendations.

### ***Non-Profit's Accounting System Fails to Record Actual Indirect Costs but Most Award Records Are Accurate***

OIG conducted two reviews of the Bermuda Institute of Ocean Sciences's (BIOS): an accounting system review, and an audit of 4 awards. BIOS is a non-profit organization providing ship operations and equipment for two research vessels and Atlantic Ocean current studies.

In the accounting system review, auditors found that BIOS did not comply with a federal requirement to use actual indirect cost rates to close out all of its awards in its account records, rather than budgeted indirect rates. While NSF grant policy limits BIOS to recovering indirect costs at the award budget's lower proposed rates, it is important that BIOS capture the full costs of its research programs in its accounting records in order to recognize the need to secure other sources of funding for costs not reimbursed by NSF. The under-recovery of indirect expenses, coupled with costs incurred for an expanded research program, could impact BIOS's ability to operate without additional funding, cost reductions, or increased revenues. In light of the expansion of research efforts, we recommended that NSF ensure that: 1) BIOS records actual indirect costs in its accounting records, 2) BIOS's financial condition is monitored, and 3) BIOS makes any necessary adjustments to its program expectations and funding. BIOS explained that it correctly billed NSF using its lower proposed indirect cost rates.

A second audit was performed to examine the \$9.2 million of costs BIOS claimed on four NSF awards to provide equipment and ship operations for the Weatherbird II, a research ship which was subsequently sold; and the Atlantic Explorer, a newly-acquired research vessel. Only \$253 of unallowable costs were found. Auditors were able to verify that costs charged for fuel and a reserve account for ship rehabilitation costs were accurate; that NSF was not charged for costs for the Weatherbird II while it was for sale; and that allocations of costs charged for "at sea" versus "at dock" ship time were accurate.

## A-133 Audits

### ***Auditors Report Qualified or Adverse Opinions on 26 of 97 Single Audits***

OMB Circular A-133 provides audit requirements for state and local governments, colleges and universities, and non-profit organizations receiving federal awards. Under this Circular, covered entities that expend \$500,000 or more a year in federal awards are required to obtain an annual organization-wide audit that includes the entity's financial statements and compliance with federal award requirements. Non-federal auditors, such as public accounting firms and state auditors, conduct these single audits. The OIG reviews the resulting audit reports for findings and questioned costs related to NSF awards, and to ensure that the reports comply with the requirements of OMB Circular A-133.

The 97 audit reports reviewed this period, covering NSF expenditures of more than \$3.1 billion, identified 85 instances where awardees failed to comply with federal requirements and 42 instances where weaknesses in internal controls could lead to future violations. In particular, the auditors issued qualified or adverse opinions on 26 of the 97 awardees' compliance with federal grant requirements, on their financial statements, or on both. Further, 23 instances of non-compliance with federal requirements resulted in \$6.4 million in questioned award costs and \$64,730 cost-sharing shortfalls on NSF awards. As detailed in the table below, the most common violations were related to financial and award management and salary/wages.

#### **Findings Related to NSF Awards**

Category of Finding	Type of Finding			
	Compliance	Internal Controls	Monetary	Total
Financial and Award Management	37	32	4	73
Salary/Wages	12	4	9	25
Fringe Benefits	1	1		2
Subawards	9		1	10
Procurement System	7		2	9
Equipment	7		1	8
Cost-Sharing	1		1	2
Indirect Costs	5	3	1	9
Property Management System		1		1
Other Direct Costs	2		3	5
Travel	2	1		3
Participant Support Costs	1		1	2
Interest Earned	1			1
<b>TOTAL</b>	<b>85</b>	<b>42</b>	<b>23</b>	<b>150</b>

We also examined 53 management letters accompanying the A-133 audit reports. Auditors use these letters to identify internal control deficiencies that are not significant enough to include in the audit report, but which could become more serious over time if not addressed. The letters disclosed a total of 93 deficiencies that could affect NSF awards in areas such as tracking, managing, and accounting for NSF costs and segregation of duties.

### ***Timeliness and Quality Deficiencies Found in 76 Percent of A-133 Audit Reports***

The audit findings contained in A-133 reports help to identify potential risks to NSF awards and are useful to both NSF and the OIG in planning site visits, post-award monitoring, and future audits. Because of the importance of A-133 reports to the process of overseeing awardees, the OIG returns reports that are deemed inadequate to the awardees to work with the audit firms to take corrective action.

Of the 46 audit reports we reviewed in which NSF was the cognizant or oversight agency for audit,<sup>4</sup> 35 (76 percent) did not fully meet federal reporting requirements. For example, we found that 22 reports (48 percent) were submitted late or the audit reporting package was incomplete. Also, for 20 reports (44 percent), the Schedule of Expenditures of Federal Awards did not provide sufficient information to allow for identification of awards received from non-federal “pass-through” entities, and another 8 reports (17 percent) either did not include a corrective action plan or the plan was incomplete to address the audit findings. Seven reports (15 percent) did not adequately identify the federal award to which the findings applied, the criteria or regulatory requirement upon which the findings were based, and/or the cause and effect of the findings.

The OIG identified each of the potential errors and contacted the auditors and awardees, as appropriate, for explanations. In most cases, the auditors and awardees either provided adequate explanations or additional information to demonstrate compliance with the Circular, or the error did not affect the results of the audit. However, we rejected three reports due to material misstatements and/or significant non-compliance with federal reporting requirements. We issued a letter to each auditor and awardee informing them of the results of our review and the specific issues on which to work during future audits to improve the quality and reliability of the report.

### ***Public Accounting Firm Responds to Deficiencies Identified in Quality Control Review***

Last year, we reported on our Quality Control Review of an A-133 audit performed at the Barrow Arctic Science Consortium<sup>5</sup> (the Consortium). Our review found that the auditor did not adequately assess the risks at the Consortium related to federal grant compliance requirements and did not conduct adequate

<sup>4</sup> The “cognizant or oversight agency for audit” is defined as the federal agency which provided the largest amount of direct funding to an auditee. On a 5-year cycle, OMB assigns a cognizant agency for audit to auditees who expend \$50 million or more in federal funds in a year. On an annual basis, OMB assigns an oversight agency for audit to auditees who expend less than \$50 million in federal funds in a year.

<sup>5</sup> September 2007 Semiannual Report, p. 18.

testing of controls over federal grant compliance requirements. As a result, we were unable to determine whether the auditor identified all instances of material non-compliance with federal grant compliance requirements. Pursuant to the review recommendations, the auditor obtained additional training on the planning and performance of A-133 audits, revised its procedures for planning and performing A-133 audits, and conducted additional audit testing on the Consortium's procurement of certain capital assets and its safeguarding of equipment purchased with federal funds.

## Audit Resolution

### ***NSF Makes Citations of Journal Articles Resulting from NSF-Funded Research Available to the Public***

In 2006, we issued two audit reports<sup>6</sup> on NSF's policies and practices for disseminating the results of the research it funds. These reports noted that, through required annual and final project reports, NSF collects a wealth of information about the research activities it funds. This information includes citations of published journal articles that resulted from the NSF-funded research. However, at the time of the audits, NSF only made abstracts of proposed research it funded available on its public website. We issued a series of recommendations to encourage NSF to also disseminate the research results of the projects it funds, thereby increasing the accountability and transparency of its research enterprise.

During this semiannual reporting period, NSF implemented the last of the recommendations from these reports. In contrast to its previous approach, NSF's public website now contains citations of the journal articles resulting from NSF-funded research, along with the abstracts of the proposed research. By December 2007, over 16,000 publication citations had been added, and this number will continue to grow as NSF receives more annual and final project reports from its principal investigators. In its 2007 E-Government Report,<sup>7</sup> NSF noted that providing journal citations helps "...NSF to better demonstrate the linkage between funded research and impact to the American public."

### ***NSF Allows \$21.3 Million of Questioned Costs Associated with Polar Support Contractor***

NSF decided to allow \$21.3 million or 38 percent of costs questioned and reported in a series of audits of Raytheon Polar Services Company's (RPSC) financial records and its compliance with its Cost Accounting Standards (CAS) disclosure statement. Auditors questioned about \$56 million of claimed costs for the five-year period 2000-2004 and identified \$26.6 million of potential additional contract costs for years 2005-2010. These audits cited RPSC's parent company, Raytheon Technical Services Company (RTSC), for failing to comply with its federally disclosed cost accounting practices in its CAS

6 *Audit of NSF's Policies on Public Access to the Results of NSF-Funded Research*, NSF OIG, Report No. OIG 06-2-004, February 16, 2006; and *Audit of Interest in NSF Providing More Research Results*, NSF OIG, Report No. 06-2-013, September 26, 2006.

7 National Science Foundation, "2007 E-Government Report," September 21, 2007.

disclosure statement. As a result, the Department of Defense (DoD), which is responsible for overseeing RTSC's compliance with its accounting disclosure statement, cited RTSC with a final determination of noncompliance for 2000-2002 and an initial determination of noncompliance for 2003-2004. However, as reported in our last Semiannual Report,<sup>8</sup> the DoD contracting officer responsible for Raytheon withdrew his determinations of noncompliance as it affects \$21.3 million of questioned costs and the \$26.6 million of projected increased costs for the Centennial, Colorado RPSC office operations. The NSF contracting officer concurred with DoD's change in position and in turn, proposed to allow the associated \$21.3 million of costs questioned by the auditors. As a corollary, the \$26.6 million of projected additional costs would also be considered allowable.

We reviewed documentation provided by DoD and NSF supporting their action, including a legal opinion provided by DoD supporting the reversal of its noncompliance determinations and found that NSF's management and administration of its contract with RPSC limited the government's ability to recover the questioned local overhead costs. To prevent the recurrence of these problems in NSF's next polar services contract, we made a number of recommendations to NSF to clarify in its upcoming solicitation its expectations with respect to local overhead costs and to require the next contractor to maintain accurate disclosure statements and comply with its disclosed accounting practices.

Of the remaining \$34.7 million of questioned costs, NSF has proposed the recovery of \$1.3 million or 17 percent of the \$7.6 million in questioned direct costs. NSF did not sustain \$5.3 million because RPSC was subsequently able to support these costs. Efforts to resolve the remaining \$1 million of questioned direct and fringe benefit costs, \$12.2 million in questioned over-ceiling indirect costs, and \$14.9 million in questioned corporate and RTSC management costs are continuing.

In addition, many significant internal control weaknesses remain unresolved, including: billings to NSF that could not be reconciled with RPSC's accounting records; RPSC's inability to maintain adequate receipts and records for costs incurred by its New Zealand subsidiary; and RPSC's lax oversight of AGUNSA, a large foreign subcontractor, where a fraud involving NSF funds was discovered.<sup>9</sup> We will continue to monitor NSF's and RPSC's progress towards resolution of these control deficiencies in the next semiannual period. In addition, we plan to monitor NSF's efforts to develop a solicitation and recompetes its next polar services contract and provide audit assistance and technical expertise as appropriate to support NSF's procurement process.

### ***\$10,317 in Questioned Costs Sustained, and Recommended Policies Established at the University of Puerto Rico***

In our March 2007 Semiannual Report<sup>10</sup> we reported that an audit of two NSF awards to the University of Puerto Rico – Central Administration (UPR) with \$8.8 million of claimed NSF funds found significant deficiencies in the

<sup>8</sup> September 2007 Semiannual Report, pp 21-22.

<sup>9</sup> March 2007 Semiannual Report, p. 14.

<sup>10</sup> March 2007 Semiannual Report, p. 20.

University's subaward monitoring system. UPR did not adequately monitor subaward costs or subawardee cost sharing for one award that included seven subawards amounting to \$3.1 million, or 58 percent of the total costs charged to the NSF award. The auditors questioned \$16,030 of which \$8,530 were unsupported or erroneous subcontractor costs and the remaining \$7,500 were incorrectly billed indirect costs.

UPR submitted additional documentation to support \$5,713 of the questioned subcontract costs and NSF sustained the remaining \$10,317 (64 percent). NSF verified that UPR established written policies and procedures for implementing a subaward monitoring program and ensuring that indirect costs are properly claimed.

### ***Community College Failure to Follow Own Procedures Results in Repayment of \$154,946 to NSF***

Nashville State Technical Community College (NSTCC) has refunded \$154,946 of questioned costs and has taken steps to improve and implement procedures to prevent future unallowable charges to federal awards, in response to an audit report that first appeared in our March 2007 Semiannual Report.<sup>11</sup>

An audit of \$2.7 million awarded to NSTCC found that the college did not always adhere to its established policies and procedures for: 1) maintaining many routine accounting documents; 2) calculating indirect costs charged to its NSF grants; and, 3) maintaining certifications and personnel activity reports for employees working on NSF programs. The auditors questioned \$185,213 of NSTCC's claimed costs.

As indicated above, NSTCC generally agreed with the audit recommendations and stated that it had initiated corrective action. However, NSTCC disagreed that it lacked appropriate documentation for certain costs charged to its NSF awards and that it did not have adequate documentation to support its cost share.

During audit resolution, NSF reviewed documentation submitted by NSTCC in support of its corrective actions including: newly updated NSTCC policies and procedures for document retention and for ensuring indirect costs charged for federal programs are pursuant to federal grant agreements; and the development of additional internal control procedures to ensure that NSTCC employees follow existing policies and procedures related to accountability of federal funds. NSF sustained \$154,946 of the questioned costs.

### ***Nonprofit Improves Its Internal Control Procedures***

In response to a 2007 audit at the American Institute of Mathematics (AIM),<sup>12</sup> NSF completed an on-site review to verify whether recommended corrective actions had been implemented satisfactorily to address over \$2 million of unsupported costs and the control deficiencies in AIM's accounting for NSF award funds. NSF management reported that AIM had improved its administrative

<sup>11</sup> March 2007 Semiannual Report, pp. 19-20.

<sup>12</sup> March 2007 Semiannual Report, p. 19.

policies and procedures to support future employee salaries, developed acceptable subaward agreements, and negotiated an indirect cost rate with NSF. Also, because time and effort records were not available, AIM provided payroll tax summaries and Internal Revenue Service 1099 forms to NSF to substantiate the questioned employee and contractor salaries. In addition, NSF program directors overseeing AIM awards provided assurance that AIM met the award objectives, thereby suggesting the questioned labor costs had actually benefited NSF's awards. NSF will continue to monitor AIM's revision of its chart of accounts to facilitate accurate recording of costs on NSF awards.

The 2007 audit report stated that AIM could not adequately support \$1.57 million of employee salaries, \$882,054 of NSF funds provided to subawardees and independent contractors, and \$23,531 of travel, participant support, and indirect costs. In addition, AIM's accounting system was unable to ensure accurate, current, and complete disclosures of the financial results of its NSF awards. This occurred because AIM used an automated accounting system along with manually prepared records to track and report NSF award costs, and discrepancies were found between the two.

## Work in Progress

### ***NSF's Use of Its Research Center Programs' Programmatic and Financial Information***

Following on our review of NSF's management and oversight of its research center programs, we recently began an audit of the programmatic and financial information NSF collects on these programs. The objective is to determine what and how NSF is using information it collects from its research centers to monitor and assess center performance. We anticipate completion of this audit by the end of 2008.

### ***Sufficiency of NSF's Cooperative Agreements for Large Facility Projects***

As reported in our September 2007 Semiannual Report,<sup>13</sup> the OIG is conducting a series of audits to determine whether the terms and conditions included in NSF's cooperative agreements for the management and operation of its large facilities projects are sufficient for NSF to provide stewardship over its programs and assets. Using a representative sample of six currently operating facilities, we are assessing the sufficiency of NSF's cooperative agreements to ensure: 1) accomplishment of programmatic goals; 2) financial and administrative accountability; 3) protection of NSF assets; and 4) compliance with laws and regulations. Our first report on terms and conditions ensuring the accomplishment of programmatic goals will be issued early in the next semiannual period.

<sup>13</sup> September 2007 Semiannual Report, p. 24.

### ***Audit of NSF Controls over the Collection, Storage, Access and Use of Personally Identifiable Information***

Work continues on an OIG audit of the adequacy of NSF controls for safeguarding electronic and paper forms of personally identifiable information of its employees, visitors, principal investigators and peer reviewers. Our report will be issued during the next semiannual period.

### ***NSF's Audit Resolution Policies and Practices***

The OIG is assessing NSF's procedures to resolve and ensure corrective action is taken on audits of its grantee institutions. In this initial survey phase, we will gain an understanding of NSF's audit resolution policies, procedures, and practices.

# Investigations

## Civil and Criminal Investigations

### ***Two Indicted in Separate Cases of Purchase Card Abuse at Same Georgia University***

In two unrelated cases at the same university, an accountant and a program coordinator were each indicted for using purchase cards (P cards) to pay for personal purchases. Combined, the two are alleged to have improperly charged \$489,000, most of it to NSF awards.

**Accountant Charges NSF for \$316,000 in Personal Items.** A former accountant at an NSF-funded research center at a Georgia university purchased over 3,800 personal items over 5 years at a total cost of more than \$316,000. The accountant used state-issued P cards to buy personal items, primarily from internet vendors which she directed to ship the items to her home or to relatives in Alabama, Florida, and California. In order to conceal her personal purchases, she submitted forged receipts to her supervisor for approval and used the research center accounting system to move her P card charges to several different accounts so they would be difficult to track.

The accountant resigned after the university's internal auditors requested information about her P card purchases. The university referred the matter to OIG for investigation after they identified thousands of purchases from online vendors. We subpoenaed documents related to these transactions, which indicated that she routinely purchased groceries, clothing, and electronics for herself and her family. The accountant also purchased college football season tickets and supplies for tailgating parties at football games. The internal auditors assisted us in tracking the purchases through the university's accounting system to the NSF center account as well as six other state and private research accounts.

After the accountant refused to be interviewed for our investigation, the Federal Bureau of Investigation (FBI) joined our investigation and served a search warrant at her home. Over 50 items the accountant purchased with her P card were seized, including several digital cameras, a lawn tractor, a personal water craft, a 32" flatscreen HDTV, and a frozen drink machine. Many other items were photographed, including a double wall oven, a dishwasher and two RV air conditioners.

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On March 5, 2008, the accountant was indicted in the U.S. District Court for the Northern District of Georgia on 17 counts of mail fraud, and five counts of theft from an organization receiving federal funds.

**Program Coordinator Charged with Theft.** A former program coordinator under an NSF grant to the same Georgia university was indicted on state charges of theft, also involving the personal use of a state-issued P card. The P card misuse was first identified by a state-wide audit of the P card program. The program coordinator resigned from the university after admitting to the state auditor and a state investigator that she used the P Card for personal purchases.

Since the initial audit only looked at a limited number of transactions, we worked with the university's internal audit department to review all possible personal purchases and financial transactions submitted by the program coordinator from 2003 through 2007, the period she was employed. We identified \$173,000 in personal charges by the program coordinator with her P card, and also determined that she received \$5,000 when she submitted a false request for reimbursement.

The program coordinator falsely charged \$120,000 to an NSF grant and \$58,000 to state and private research accounts. Her personal purchases included automobile insurance and repairs, groceries, and jewelry. In order to conceal her personal purchases, the program coordinator altered receipts and used the university accounting system to move her P card charges to several different accounts so they would be difficult to track. When we interviewed the program coordinator, she admitted using the P-card to make personal purchases, and admitted that the \$5,000 reimbursement was false and used to pay personal debts.

On March 21, 2008, the program coordinator was indicted in the Superior Court of Fulton County, Georgia, for Theft By Taking.

### ***Award Obtained Through False Statements Is Terminated, PI Debarred, and \$1.25 Million Put to Better Use***

NSF terminated an education award and debarred the PI for making false statements in his proposal. As discussed in a previous Semiannual Report,<sup>14</sup> the executive director of an education-oriented research firm received an award for over \$2 million, based in part on the participation of a particular collaborator. However, the collaborator had previously told him, in writing, that it could not participate in the project. The executive director submitted an altered letter of support as evidence of the nonexistent collaboration.

We referred the matter with our recommendations to NSF, which concurred, terminated the award, and debarred the executive director for a period of 5 years. The termination of the award enabled NSF to put \$1.25 million to better use.

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<sup>14</sup> September 2007 Semiannual Report, p.27.

## ***PI Who Obtained SBIR Grant Under False Pretenses Is Recommended for Debarment***

As reported in a previous Semiannual Report,<sup>15</sup> OIG determined that a small business wrongfully received a Phase II grant from the Small Business Innovation Research (SBIR) Program because its owner, who was also the PI, falsely told NSF that her company was a “spin-off” of the Phase I awardee company. The PI was an officer and shareholder at the original company, and led the other officers to believe that she submitted the Phase II proposal on behalf of the original company. However, without their knowledge, she then negotiated the change of grant entity with NSF. We informed NSF that the PI’s new company was not a “spin-off” or affiliated in any way with the original company, and NSF terminated the Phase II grant. After the U.S. Attorney’s Office declined prosecution, we recommended that NSF debar both the PI and her company for 3 years.

## ***Debarment Recommended for Two Who Abused Purchase Cards at DC Institution***

OIG recommended that NSF debar two accounting managers at a grantee institution in the District of Columbia who engaged in a scheme to use two organizational purchase cards to pay for unauthorized personal expenditures exceeding \$100,000 each. The two colluded to cover up each other’s fraudulent charges, by abusing their responsibilities for reviewing, reconciling, and accounting for certain purchase card transactions. Their conspiracy was uncovered by an internal audit conducted by the grantee institution initiated as a result of a previous unrelated instance of employee embezzlement. The employees each pled guilty to mail fraud. The employee who served in a supervisory position was sentenced to 15 months incarceration, restitution, and 2 years of supervised release. The other employee, who was the first to plead guilty and provide details of the criminal conduct to the Department of Justice, was sentenced to 5 years of probation, restitution, and 200 hours of community service.

We recommended that NSF debar both of the individuals for 3 years because, even though they did not embezzle federal funds, they were both responsible for management and oversight of federal and non-federal funds. Moreover, their job histories made it reasonable to expect that they will seek similar positions accounting for federal funds in the future.

## ***Agency Debars Former Research Center Employee Convicted of Mail Fraud***

In response to our recommendation, NSF debarred a former employee of an NSF funded research center for 3 years. As reported in previous Semiannual Reports,<sup>16</sup> the employee pled guilty to one count of mail fraud in response to a federal indictment and was subsequently sentenced in federal court to 16 months in federal prison, 3 years of supervised release, and ordered to pay res

<sup>15</sup> September 2007 Semiannual Report, p.26.

<sup>16</sup> September 2007 Semiannual Report, p.25; March 2007 Semiannual Report, p.30.

titution. The employee converted research center funds, including funds from NSF, to her personal use by purchasing items such as books and iPods with the research center's purchasing card. She re-sold the items she purchased on eBay, using the research center's FedEx account to ship the items she sold.

### ***Convicted Professor Is Recommended for Debarment***

OIG recommended that NSF debar for 5 years a former professor at a Tennessee university who pled guilty to making false statements to NSF in violation of 18 U.S.C. § 1001. The former professor was sentenced to six months home confinement, 2 years probation, and ordered to pay restitution of \$25,598, as discussed in a previous Semiannual Report.<sup>17</sup> The professor used her position

as a center director at the university and PI on NSF grants to falsely charge expenses to accounts at the university, including NSF grant accounts, for work that was actually related to a personal consulting contract.

### ***Explicit Material Found on Two Agency Computers***

OIG received information that an NSF employee's computer system contained substantial inappropriate material, in violation of NSF's computer use policies. NSF turned over the employee's hard drive to our office for analysis, which confirmed that numerous sexually explicit image and video files, and dozens of full-length copyrighted movies were present on the computer. The hard drive also contained a peer-to-peer file-sharing program. None of the image or movie files depicted underage subjects, which is illegal and would have resulted in criminal charges. After the employee acknowledged his culpability, we referred our findings to NSF for appropriate action. NSF issued a letter to the subject proposing his termination, but the employee resigned instead.

We conducted a review to determine whether additional NSF employees had been violating NSF computer policies by downloading media files inconsistent with NSF's policy. We identified an NSF employee whose network computer drive contained a large number of sexually explicit files. We interviewed the employee and he acknowledged accessing, viewing, and downloading this material on his NSF computer in violation of NSF's policies regarding the personal use of agency communication resources. We referred the matter to NSF management with a recommendation that they take appropriate action. Their response is pending.

### ***NSF Responds to Recommendations to Strengthen Contracting Practices***

During this semiannual period, NSF responded to our recommendations for improvements in its contracting and administrative practices that arose from an investigation involving a potential Antideficiency Act violation.<sup>18</sup> NSF acknowledged the value of monitoring and, when necessary, mitigating risk in contracting transactions. NSF agreed to consider further refinements to its oversight program, while noting that the circumstances referred to in the investigation

<sup>17</sup> September 2007 Semiannual Report, p.25.

<sup>18</sup> September 2007 Semiannual Report, p.38.

were outside the scope of normal contracting activity, and occurred prior to the implementation of strengthened management controls and procedures recommended by the Chief Financial Officer. NSF agreed with the need for a COTR handbook to be developed as soon as possible and anticipates completion by the end of April 2008, along with implementation of COTR training through the NSF Academy. NSF also agreed to review its procedures for responding to potential Antideficiency Act issues, including a review to ensure compliance with applicable appropriations law and Office of Management and Budget guidance.

### ***PI Debarred for Submitting False Project Reports***

Our investigation into an allegation of false statements to NSF concluded that the PI at a university in Pennsylvania falsified multiple final project reports to NSF, claiming an international collaboration where none existed.<sup>19</sup> We referred the misrepresentations to the U.S. Attorney's Office, which declined prosecution in lieu of strong administrative action. We recommended NSF take specific action to protect federal interests and NSF agreed and debarred the PI for 3 years.

## **Administrative Investigations**

### **Actions by NSF Management**

#### ***PI Plagiarized in Five Proposals Submitted to NSF***

An investigation confirmed that a PI plagiarized substantial amounts of text into his five NSF proposals. We received an allegation that a PI and co-PI from an Ohio university plagiarized material from a published paper into an unfunded NSF proposal. The PI and co-PI explained to our investigators that they had accidentally uploaded a draft version of the proposal, one not meant for submission. However, the university's inquiry committee determined that the PI was responsible for the plagiarism and had misled his co-PI regarding the advent of the plagiarized text. In addition, the university's investigation committee learned that the PI plagiarized identical material in a proposal he submitted to an international science foundation. The investigation committee concluded that the subject knowingly plagiarized material in multiple proposals and recommended that the PI not be reappointed. The PI resigned from the university.

Our office examined the PI's other proposals and found he plagiarized a total of approximately 129 unique lines, 2 unique figures and captions, and 18 unique embedded references from 11 sources in five proposals. We concurred with the university's findings and recommended that NSF: make a finding of research misconduct against the PI; send him a letter of reprimand; require certifications and assurances from PI for 3 years; and require completion of an ethics course with documentation provided to OIG upon completion. NSF's Deputy Director agreed and implemented all of our recommendations.

<sup>19</sup> September 2007 Semiannual Report, p.27.

## **Research Misconduct Findings Made by the Deputy Director**

NSF's Deputy Director made findings of research misconduct and concurred with our recommendations in the following cases that were described in previous Semiannual Reports and forwarded to her office for action:

- Our most recent Semiannual Report summarized a case in which a graduate student at a Washington university admitted he falsified and fabricated NSF-funded research data in four manuscripts, three of which were published.<sup>20</sup> Consistent with our recommendations, the Deputy Director made a finding of research misconduct; sent the student a letter of reprimand; debarred the student for 3 years; required both certifications and assurances for 3 years following debarment; and barred the student from serving as an NSF reviewer for 3 years. The Deputy Director also required the student to complete an ethics training course.
- We received an allegation that a post-doctoral researcher (the subject) at a university in Pennsylvania falsified a figure in a paper that cited NSF support.<sup>21</sup> The university's investigation concluded the subject falsified the figure, and the university dismissed him. We agreed with the university's conclusions and recommended NSF make a finding of research misconduct against him. NSF agreed and took the additional recommended actions of: debarring the subject for 2 years; requiring the subject to retract the publication; and requiring the subject to attend an ethics course. NSF also required the subject to: certify for 2 years after the end of the debarment that any proposals submitted by the subject contain no plagiarized, falsified, or fabricated material; and submit for 2 years after the end of the debarment the assurances of a university official who has reviewed the subject's NSF proposals and reports and concluded they do not contain any plagiarized, falsified, or fabricated material.
- As described in a previous Semiannual Report, we referred an allegation of plagiarism in a proposal submitted to NSF by a PI and two co-PIs to their university.<sup>22</sup> Although the PI blamed his former post-doctoral researcher for the plagiarism, the university concluded the PI was responsible for the copied material in his proposal, and, consequently, committed plagiarism. We agreed with the university and recommended NSF make a finding of research misconduct against him. NSF agreed and took the additional actions of requiring the PI to: certify for 5 years that any proposals submitted by him contain no plagiarized, falsified, or fabricated material; submit for 5 years the assurances of a university official who has reviewed the PI's NSF proposals and reports and concluded they do not contain any plagiarized, falsified, or fabricated material; and certify completion of an ethics course on plagiarism.
- A Michigan university's investigation concluded that its professor knowingly committed significant plagiarism in a total of four NSF proposals, as well as small amounts of plagiarism in numerous proposals he submitted to

<sup>20</sup> September 2007 Semiannual Report, p.31.

<sup>21</sup> September 2007 Semiannual Report, p.31.

<sup>22</sup> September 2007 Semiannual Report, p.32.

other funding entities.<sup>23</sup> NSF agreed with our recommendation to make a finding of research misconduct. For the next 3 years, the professor must certify and obtain assurances from a university official that any proposals or reports he submits to NSF do not contain plagiarized, falsified, or fabricated material. NSF also required the professor to complete an ethics course on plagiarism.

- An investigation of a Massachusetts university PI found that he plagiarized in four NSF proposals, two of which were funded.<sup>24</sup> Consistent with our recommendations, NSF's Deputy Director: made a finding of research misconduct; required that for 3 years the PI certify and obtain supervisor assurance that proposals he submits to NSF do not contain plagiarized, falsified, or fabricated material; and required the PI to complete a research ethics course.

## Reports Forwarded to NSF Management

### *Masters Student Fabricates Data in Thesis*

OIG and university investigations concluded that a student, who was receiving funds through an NSF award to her advisor, fabricated the underlying data for graphs presented to her thesis committee at a Washington university. The student's university found that the student recorded and documented her data properly during some months of her research, but also found improprieties. Specifically, the few electronic files available demonstrated the student's improper use of "correction factors" to achieve the results she desired in an effort to demonstrate their validity. Based on its investigation, the university concluded the student fabricated her research data, and the university expelled the student.

We concurred with the university's findings. We recommended that NSF: make a finding of research misconduct; debar the student for 3 years; require certification of completion of a course in appropriate data handling and record keeping before receiving funds from any NSF award; for 3 years following the debarment period, require certifications by the student and assurances from her employer that any proposals or reports submitted to NSF do not contain research misconduct; and bar the student from serving NSF as a reviewer or in any advisory capacity during the debarment and for 3 years after.

### *New Faculty Member Plagiarizes in First Proposal*

A PI at a Pennsylvania university in his first faculty position plagiarized a significant amount of text from five sources into his first NSF proposal. We reviewed the proposal and completed an inquiry involving the PI and a senior faculty member he had identified as the co-PI. As a result of our inquiry, we referred the matter for investigation to the university with respect to both the PI

<sup>23</sup> September 2007 Semiannual Report, p.33-34.

<sup>24</sup> September 2007 Semiannual Report, p.34, "PI Plagiarizes in Four NSF Proposals," mistakenly stated that we recommended debarment and a bar from peer review.

and co-PI. The university found that the sole responsibility for the text in the proposal lay with the PI, and exonerated the co-PI. The university found that the PI committed knowing plagiarism.

We reviewed the university's report and concurred with its findings. We recommended that NSF: send the PI a letter of reprimand notifying him of the finding of research misconduct; require the PI to submit certification of his completion of an ethics course before submitting any proposal to NSF as a PI or Co-PI; for a period of 2 years require the PI to submit certifications by the PI and assurances from his employer that his NSF proposals and reports do not contain research misconduct; and bar the PI from serving NSF as a reviewer, advisor, or consultant for a period of 2 years.

# Statistical Data

## Audit Data

### Audit Reports Issued with Recommendations for Better Use of Funds

		Dollar Value
A.	For which no management decision has been made by the commencement of the reporting period	\$1,945,240
B.	Recommendations that were issued during the reporting period	\$0
C.	Adjustments related to prior recommendations	\$0
Subtotal of A+B+C		\$1,945,240
D.	For which a management decision was made during the reporting period	\$0
	i) Dollar value of management decisions that were consistent with OIG recommendations	\$0
	ii) Dollar value of recommendations that were not agreed to by management	\$0
E.	For which no management decision had been made by the end of the reporting period	\$1,945,240
For which no management decision was made within 6 months of issuance		\$1,945,240

#### HIGHLIGHTS

Audits	35
Investigations	44

### Audit Reports Issued with Questioned Costs

		Number of Reports	Questioned Costs	Unsupported Costs
A.	For which no management decision has been made by the commencement of the reporting period	29	\$60,878,183	\$2,816,052
B.	That were issued during the reporting period	17	\$7,211,063	\$3,006,768
C.	Adjustment related to prior recommendations	(1)	(\$10,000) <sup>25</sup>	\$0
Subtotal of A+B+C		45	\$68,079,246	\$5,822,820
D.	For which a management decision was made during the reporting period	19	\$4,174,150	\$3,086,139
	i) dollar value of disallowed costs	N/A	\$192,172	N/A
	ii) dollar value of costs not disallowed	N/A	\$3,981,978	N/A
E.	For which no management decision had been made by the end of the reporting period	26	\$63,905,096	\$2,736,681
	For which no management decision was made within 6 months of issuance	10	\$57,130,000	\$165,880

<sup>25</sup> A finding in an A-133 audit was misrepresented in the tables.

## Audit Reports Involving Cost-Sharing Shortfalls

		Number of Reports	Cost-Sharing Promised	At Risk of Cost Sharing Shortfall (Ongoing Project)	Actual Cost Sharing Shortfalls (Completed Project)
A.	Reports with monetary findings for which no management decision has been made by the beginning of the reporting period:	4	\$6,828,044	\$796,730	\$0
B.	Reports with monetary findings that were issued during the reporting period:	1	\$0	\$0	\$64,730
C.	Adjustments related to prior recommendations	0	\$0	\$0	\$0
Total of reports with cost sharing findings (A+B+C)		5	\$6,828,044	\$796,730	\$64,730
D.	For which a management decision was made during the reporting period:	3	\$2,147,780	\$511,792	\$0
	1. Dollar value of cost-sharing shortfall that grantee agreed to provide	3	\$2,147,780	\$511,792	\$0
	2. Dollar value of cost-sharing shortfall that management waived	3	\$2,147,780	\$0	\$0
E.	Reports with monetary findings for which no management decision has been made by the end of the reporting period	2	\$4,680,264	\$284,938	\$64,730

## Status of Recommendations that Involve Internal NSF Management Operations

Open Recommendations (as of 3/31/2008)	
Recommendations Open at the Beginning of the Reporting Period	52
New Recommendations Made During Reporting Period	48
Total Recommendations to be Addressed	100
Management Resolution of Recommendations <sup>26</sup>	
Awaiting Resolution	39
Resolved Consistent With OIG Recommendations	61
Management Decision That No Action is Required	0
Final Action on OIG Recommendations <sup>27</sup>	
Final Action Completed	24
<b>Recommendations Open at End of Period</b>	<b>76</b>

### Aging of Open Recommendations

Awaiting Management Resolution:	
0 through 6 months	35
7 through 12 months	1
More than 12 months	3
Awaiting Final Action After Resolution	
0 through 6 months	13
7 through 12 months	6
More than 12 months	18

<sup>26</sup> "Management resolution" occurs when the OIG and NSF management agree on the corrective action plan that will be implemented in response to the audit recommendations.

<sup>27</sup> "Final action" occurs when management has completed all actions it agreed to in the corrective action plan.

## List of Reports

### *NSF and CPA Performed Reviews*

Report Number	Subject	Questioned Costs	Unsupported Costs	Better Use of Funds	Cost Sharing At-Risk
08-1-001	WGBH Educational Foundation	\$808,383	\$6,737	\$0	\$0
08-1-002	University of Utah Effort Reporting System	\$0	\$0	\$0	\$0
08-1-003	UCAR – University Corporation for Atmospheric Research	\$0	\$0	\$0	\$0
08-1-004	University of California – Berkeley Effort Reporting	\$25,778	\$0	\$0	\$0
08-1-005	University of Illinois at Urbana-Champaign Effort Reporting	\$6,329	\$0	\$0	\$0
08-1-006	SRI International	\$0	\$0	\$0	\$0
08-1-007	WHOI Woods Hole Oceanographic Institution	\$0	\$0	\$0	\$0
08-1-008	BIOS IC Bermuda Institute for Ocean Sciences Internal Controls	\$0	\$0	\$0	\$0
08-2-001	NSF FY2007 Special Purpose Financial Statement	\$0	\$0	\$0	\$0
08-2-002	NSF's Oversight of Centers	\$0	\$0	\$0	\$0
08-2-003	NSF FY2007 Financial Statement Audit Report	\$0	\$0	\$0	\$0
08-2-004	NSF's FY2007 Management Letter Report	\$0	\$0	\$0	\$0
08-3-001	Internal Quality control Review of California Institute of Technology #07-1-013	\$0	\$0	\$0	\$0
08-6-001	OIG Assessment of Joint Statement of Understanding	\$0	\$0	\$0	\$0
	<b>Total:</b>	\$840,490	\$6,737	\$0	\$0

### NSF-Cognizant Reports

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
08-4-001	9-06 UCAR University Corporation for Atmospheric Research	\$0	\$0	\$0
08-4-002	6-05 California Academy of Sciences	\$11,814	\$11,814	\$0
08-4-003	12-06	\$0	\$0	\$0
08-4-004	9-06 California Institute of Technology	\$0	\$0	\$0
08-4-005	6-06 Carnegie Institution of Washington	\$0	\$0	\$0
08-4-006	6-05 Carnegie Institution of Washington	\$0	\$0	\$0
08-4-007	12-05 BBSR/BIOS Bermuda Biological Station for Research, Inc.	\$0	\$0	\$0
08-4-008	12-04 Carnegie Institute	\$0	\$0	\$0
08-4-009	12-05 Carnegie Institute	\$0	\$0	\$0
08-4-010	6-06 Henry E. Huntington Library & Art Gallery	\$0	\$0	\$0
08-4-011	12-06 ICSI International Computer Science Institute	\$0	\$0	\$0
08-4-012	6-06 ITEA International Technology Education Association, Inc. & Foundation	\$0	\$0	\$0
08-4-013	6-04 ITEA International Technology Education Association, Inc. & Foundation	\$0	\$0	\$0
08-4-014	6-05 Earth & Space Research	\$0	\$0	\$0
08-4-015	9-06 Center for Image Processing in Education, Inc.	\$0	\$0	\$0
08-4-016	6-04 ADEC	\$0	\$0	\$0
08-4-017	9-05 Kentucky Science & Technology Corporation	\$0	\$0	\$0
08-4-018	12-04 World Technology Evaluation Center	\$0	\$0	\$0
08-4-020	12-06 Horizon Research, Inc.	\$0	\$0	\$0
08-4-021	12-06 Barrow Arctic Science Consortium	\$0	\$0	\$0
08-4-022	6-04 NSBP National Society of Black Physicists	\$0	\$0	\$0
08-4-023	6-05 NSBP National Society of Black Physicists	\$0	\$0	\$0
08-4-024	6-06 NSBP National Society of Black Physicists	\$0	\$0	\$0

**NSF-Cognizant Reports (cont.)**

08-4-025	9-06 JOI Joint Oceanographic Institutions	\$0	\$0	\$0
08-4-026	12-05 Internet Systems Consortium	\$0	\$0	\$0
08-4-027	12-04 Academy of Natural Sciences	\$0	\$0	\$0
08-4-028	12-05 Academy of Natural Sciences of Philadelphia	\$0	\$0	\$0
08-4-029	12-06 Academy of Natural Sciences of Philadelphia	\$0	\$0	\$0
08-4-031	6-05 ADEC	\$0	\$0	\$0
08-4-032	12-05 World Technology Evaluation Center, Inc.	\$0	\$0	\$0
08-4-033	12-06 WHOI Woods Hole Oceanographic Institution	\$0	\$0	\$0
08-4-034	6-04 NSBP National Society of Black Physicists	\$0	\$0	\$0
08-4-035	6-05 NSBP National Society of Black Physicists	\$0	\$0	\$0
08-4-036	6-06 NSBP National Society of Black Physicists	\$0	\$0	\$0
08-4-037	9-06 AUI Associated Universities, Inc.	\$0	\$0	\$0
08-4-038	12-04 UCAID University Corporation for Advanced Internet Development	\$0	\$0	\$0
08-4-039	12-05 UCAID University Corporation for Advanced Internet Development	\$0	\$0	\$0
08-4-040	12-06 UCAID University Corporation for Advanced Internet Development	\$7,254	\$0	\$0
08-4-041	12-06 American Geophysical Union	\$0	\$0	\$0
08-4-042	12-06 American Anthropological Association	\$0	\$0	\$0
08-4-043	12-06 CUAHSI Consortium of Universities for the Advancement of Hydrologic Science	\$0	\$0	\$0
08-4-044	6-05 ITEA International Technology Education Association	\$0	\$0	\$0
08-4-045	12-06 Rocky Mountain Biological Laboratory	\$0	\$0	\$0
08-4-046	12-06 Shodor Educational Foundation, Inc.	\$0	\$0	\$0
08-4-047	6-06 California Academy of Sciences	\$0	\$0	\$0
08-4-048	12-06 Denver Museum of Nature and Science	\$0	\$0	\$0
	<b>Total:</b>	\$19,068	\$11,814	\$0

### Other Federal Audits

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
08-5-007	6-05 Sisseton-Wahpeton College	\$10,575	\$0	\$0
08-5-009	6-06 State of Rhode Island	\$435,967	\$435,967	\$0
08-5-010	6-06 Claremont McKenna College	\$125,269	\$125,269	\$0
08-5-012	6-06 Mt. San Antonio Community College District	\$141,443	\$141,443	\$0
08-5-014	6-06 Rochester Institute of Technology	\$162,965	\$0	\$0
08-5-023	6-05 Fisk University	\$1,985	\$0	\$0
08-5-024	6-06 Fisk University	\$3,126	\$0	\$0
08-5-028	8-06 Long Island University	\$47,996	\$47,996	\$0
08-5-030	6-05 University of Medicine and Dentistry of New Jersey	\$12,838	\$92	\$0
08-5-032	6-06 State of Louisiana	\$130,755	\$130,755	\$0
08-5-034	6-06 Howard University	\$291,910	\$211,059	\$0
08-5-035	6-06 University of Missouri System Office	\$4,986,676	\$1,895,636	\$0
	<b>Total:</b>	<b>\$6,351,505</b>	<b>\$2,988,217</b>	<b>\$0</b>

### **Audit Reports With Outstanding Management Decisions**

*This section identifies audit reports involving questioned costs, funds put to better use, and cost sharing at risk where management had not made a final decision on the corrective action necessary for report resolution with six months of the report's issue date. At the end of the reporting period there were eight reports remaining that met this condition. The status of recommendations that involve internal NSF management is described on page 38.*

## Investigations Data

(October 1, 2007 – March 31, 2008)

### Civil/Criminal Investigative Activities:

Referrals to Prosecutors	11
Criminal Convictions/Pleas	0
Civil Settlements	0
Indictments/Information	3
Investigative Recoveries	\$1,513,135.51

### Administrative Investigative Activities:

Referrals to NSF Management for Action	17
Research Misconduct Findings	6
Debarments	8
Administrative Actions	32
Certifications and Assurances Received <sup>28</sup>	4

### Investigative Case Statistics:

	<u>Preliminary</u>	<u>Civil/Criminal</u>	<u>Administrative</u>
Active at Beginning of Period <sup>29</sup>	59	66	62
Opened	76	39	32
Closed	93	30	31
Active at End of Period	42	75	63

28 NSF accompanies some actions with a certification and/or assurance requirement. For example, for a specified period, the subject may be required to confidentially submit to OIG a personal certification and/or institutional assurance that any newly submitted NSF proposal does not contain anything that violates NSF regulations.

29 Last period we reported 60 Preliminary cases and 67 C/C cases. During this period, a duplicate Preliminary case was deleted and a C/C case was closed, which should have been counted as closed last period

## Freedom of Information Act and Privacy Act Requests

Our office responds to requests for information contained in our files under the freedom of Information Act (“FOIA,” 5 U.S.C. paragraph 552) and the Privacy Act (5 U.S.C. paragraph 552a). During this reporting period:

- Requests Received 16
- Requests Processed 15
- Appeals Received 2
- Appeals Upheld 2

Response time ranged between 2 days and 20 days, with the median around 13 days and the average around 11 days.

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# Performance Report

## Goal 1

### **Promote NSF Efficiency and Effectiveness**

#### **1. Identify and implement approaches to improve product quality and timeliness.**

- *Initiate a process to convert to electronic audit workpapers.*
- *Establish a team to develop standard audit report content and presentation formats for performance and grant audit reports.*
- *Develop and finalize a policy on audit reporting.*
- *Conduct a training session to provide guidance and examples of quality audit reports and quality Semiannual Reports write-ups.*
- *Complete most OIG audits within one year of conducting the planning conference.*
- *Complete 75% of all audits carried over from prior year.*
- *Develop and finalize a policy on relying on the work of others.*
- *Develop and finalize a policy on A-133 audit desk review and oversight.*
- *Identify and monitor quarterly workload targets for each audit team.*
- *Discuss performance-based contracting with the Contracting Officer; present options on how to include performance-based language in our contracts.*
- *Contact and solicit bids from at least five new IPA firms.*
- *Solicit staff proposals for increased quality and timeliness of investigative product.*
- *Review OI operations for compliance with ECIE standards of performance.*
- *Ensure sufficiency of all investigative products.*
- *Review Investigations Manual and forms.*

**Audits.** OIG continued its efforts to improve audit timeliness and quality during this performance period. To convert from paper to electronic workpapers, a task force within the Office of Audit conducted technical and cost comparisons of four electronic workpaper packages and recommended purchasing software from an outside vendor. This year, the Office hoped to begin the process of converting to electronic workpapers in keeping with most other OIG and professional audit organizations. However, due to budget constraints, office-wide conversion to electronic workpapers has not yet been feasible.

To improve the quality of audit reports, the Office of Audit developed a standard audit report format for the content and presentation of grant audit reports. The Office also issued a policy on audit reporting, which will help ensure that audit reports are accurate, fair, and objective by requesting at the draft report stage the views of those responsible for managing the auditee or the activity audited. The policy will also help ensure effective corrective action on audit findings and recommendations through the distribution of the final report to those charged with governance and other stakeholders, such as the Congress and the National Science Board. In addition, the policy will help ensure transparency of audit work by requiring the publication of redacted final reports on the OIG website within one day of issuance.

To increase the quality and timeliness of audit products, the Office of Audit provided training to its staff on writing audit reports and initiated training on writing articles for Semiannual Reports. During the training, staff analyzed the format and presentation of a well-written report and why it was effective in telling the audit “story.” Staff also examined a report that lacked clarity to demonstrate the importance of structure and organization in stating audit findings, conclusions, and recommendations.

In the past year OIG completed 56 percent of the audits contracted to CPA firms and 57 percent of audits performed by OIG staff within one year. Both categories showed improvement over the percentages reported for the previous performance year.<sup>30</sup> OIG also completed 61 percent of the audits carried over from the prior year, somewhat less than the comparable percentage reported the previous year.<sup>31</sup> Although the completion rate for carryover audits was less than the target rate of 75 percent, some of our reports were delayed by circumstances beyond our control, as work was delayed by a concurrent investigation at one auditee and turnover in staff at CPA firms under contract to OIG for three other audits.

The Office of Audit developed two new policies to improve audit quality and timeliness: one provides standards for monitoring the work of the CPA firms and the Defense Contracting Auditing Agency, and the other provides guidance on the review and oversight of Single Audit Reports for awardees that receive NSF funds. The contractor monitoring policy will increase the quality and timeliness of audit work by standardizing audit planning and procurement, oversight, reporting, documentation, supervision, quality control, contractor-evaluation, and invoice-processing functions within the Office. The policy on Single Audit Report oversight will enable the Office to process the 100 or more audit reports reviewed each semiannual period more effectively and efficiently. Because the OIG has sufficient resources to audit only five percent of the NSF funds that are considered high risk, the increased coverage provided by the Single Audit Report enables both NSF and OIG to monitor a larger number of awardees. The new policy will facilitate this important function.

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<sup>30</sup> March 2007 Semiannual Report, p. 40. Last year we completed 55 percent of the audits contracted to CPA firms and 56 percent of audit performed by OIG staff within one year.

<sup>31</sup> March 2007, Semiannual Report, p. 40. Last year we completed 68 percent of audits carried over from the prior year within one year.

Other steps taken to improve audit quality and timeliness include tracking audit workload targets each quarter, increasing the pool of CPA firms with which the Office contracts, and developing performance-based language in OIG contracts. Specifically, during this performance period, auditors interviewed seven new CPA firms, posted a *Request for Information Sources Sought* on FedBiz Ops, and received capabilities information from nine additional new CPA firms. The inclusion of performance based language in contracts will provide firms with incentives for producing quality, timely work and penalties for failing to do so.

**Investigations.** The OIG's Office of Investigations also made substantive improvements in product quality and timeliness. Based on the recommendations of a staff task force, the Office is testing increased use of electronic communications to expedite communications and reduce our use of paper products.

Office management met to review investigative milestone completion records in our ongoing effort to ensure that proper measures of performance are established and maintained. We determined that the electronic milestone tracking ability incorporated last year into OIG's Knowledge Management System (KMS), which included a "flagging" system that alerts individual investigators of approaching milestones, has effectively assisted investigators in assuring milestones are met.

In preparation for our external peer review, the Office reviewed investigative operations for compliance with PCIE/ECIE standards of performance. To help ensure the impartiality of investigations, we developed an Investigator Statement of Personal Independence to be executed by all investigators working on any investigation. The document is posted in the investigative file for future reference. We also reviewed past peer review reports to ensure that all action items were resolved. The Office subsequently underwent peer review by another OIG and was found to be in compliance with all investigative standards of performance.

Internal processes continue to ensure that appropriate quality control and quality assurance are being applied in the production and dissemination of Investigative Reports and Management Implication Reports, the products by which we are measured outside OIG. We also reviewed and updated our Investigative Manual, and corresponding forms, to respond to guidance the Department of Justice provided to federal Offices of Inspectors General and to incorporate efficiency initiatives implemented by management.

## **2. Strengthen our focus by refining approaches for selecting work and setting priorities.**

- *Develop and execute the annual audit plan.*
- *Document decision for final selection of audits included in the audit plan.*
- *Develop a risk analysis of NSF funding by program and Directorate.*
- *Identify and maintain focus on risk factors present in NSF programs and operations.*
- *Identify and maintain focus on high-risk institutions.*

**Audits.** The Office of Audit conducted staff “brainstorming” sessions in May 2007 to begin preparation of the FY 2008 Audit Plan. We incorporated ideas from those sessions along with risk assessments of NSF awards and awardee institutions, OIG’s annual *Management Challenges Letter*, referrals from the Office of Investigations, and NSF’s audit requests into the FY 2008 Audit Plan, which we presented to the National Science Board in October 2007. We documented the methodologies used in developing the risk analysis employed to select audits for the Plan for future reference during audit planning. In addition, we identified costs by program for all NSF’s directorates and divisions as an important risk factor. To maintain focus on risk factors present in NSF operations and programs, Audit staff attended Congressional hearings, NSB meetings and NSF advisory committee meetings, and read Committee of Visitors Reports and external reports on NSF programs. Identifying and focusing on risk factors in NSF programs and operations and on high-risk awards and institutions makes the most effective use of OIG’s limited resources.

**Investigations.** During this performance period, we sought input from Office staff regarding the identification of risk factors relevant to NSF programs and operations. Based upon that input, 13 proactive reviews were opened, resulting in the development of a number of meaningful investigations.

Quarterly meetings between the Office of Audit and the Office of Investigations to monitor and coordinate activities at high-risk institutions serve as a means to exchange information, identify common concerns, proactively identify and address possible conflicts, and monitor referrals made between the two offices. These meetings have also resulted in our improved ability to select matters to investigate as a result of audit recommendations.

## Goal 2

### ***Safeguard the Integrity of NSF Programs and Resources***

#### **1. Detect and address improper, inappropriate, or illegal activities.**

- *Improve our ability to detect falsified figures in NSF proposal.*
- *Assess available software packages for enhanced financial analysis.*
- *Improve and accelerate the research misconduct investigative process.*
- *Implement a program to encrypt remotely stored or accessed sensitive information on OIG laptops and other data storage devices.*

During this performance period, the Office of Investigations field tested different types of software to be used in the identification of falsified figures in NSF proposals. A commercial software package was selected, and the new capability will provide a valuable tool in our investigative efforts. Additionally, this initiative resulted in a Management Implication Report to NSF management proposing that NSF provide substantive guidance on how figures should be presented by researchers in their proposals and reports.

We surveyed the research community to determine the most efficient and economical means of facilitating the electronic transmission of financial data. This has resulted in the increased provision of electronic records for review and analysis during the investigative process and has enhanced our ability to conduct such analysis.

To improve and accelerate the research misconduct investigative process, we updated the text of the letter that we use to refer matters to institutions for inquiry and investigation. The improved wording of the letter resolves issues that had been raised in the research community regarding confidentiality of OIG records. Further, it provides guidance to inquiry and investigation committees to assist them in performing their duties when research matters are brought to the attention of the institution by OIG.

Finally OIG IT specialists successfully implemented a program to encrypt sensitive information residing on OIG laptops. We encrypted all of the office's 22 laptop computers to ensure compliance with recently adopted federal security requirements.

#### **2. Strengthen OIG proactive activities**

- *Assess efficacy of current approach for identification of cases and priorities.*
- *Enhance proactive review planning process.*
- *Broaden scope of proactive activities appropriate for programs and grantees within NSF OIG jurisdiction.*



Attendees at OIG's Grant Fraud Conference listen to a presentation on compliance agreements

Throughout this performance year, the Office of Investigation has continued to enhance its proactive activities. We developed a proactive review plan based upon the investigative risk areas identified by our staff. As a result, proactive reviews are now even more focused on high-risk programs and institutions. These proactive reviews have proven to be effective, not only in terms of investigations opened, but also in terms of surfacing systemic issues that are raised to NSF through OIG Management Implication Reports.

Proactive preventative work has also been accomplished through sharing our practices and products with other federal OIGs overseeing grant programs. These include posters, hand-outs, fact sheets, slide shows, and other proactive materials we have developed. Prior to this year's NSF OIG Grant Fraud Workshop, which was attended by approximately 130 investigators from 30 departments and agencies, we collected outreach materials from many federal OIGs and made them available to attendees during the workshop.

OIG also provided assistance to the independent auditor performing the annual evaluation of NSF's IT security system. This effort is intended to help safeguard the integrity of the agency's programs and resources.

## Goal 3

### ***Utilize OIG Resources Effectively and Efficiently***

#### **1. Strengthen and utilize the professional expertise and talents of all OIG staff.**

- *Conduct a bi-annual survey of OIG staff to obtain its views on the effectiveness of :*
  - *OIG use of its resources in personnel, equipment, technology and contracting,*
  - *Management planning, policies, and procedures,*
  - *Internal communications and coordination,*
  - *OIG impact on NSF, and*
  - *KMS and other management tools.*
- *Analyze survey results and develop and implement corrective actions for any problems identified.*
- *Make system enhancements to KMS.*
- *Conduct KMS and other IT training, as necessary.*
- *Update KMS user manuals.*
- *Provide prompt, effective responses to requests for IT support.*
- *Identify and replace outdated computer systems.*
- *Implement an automated calling system for continuity of operations planning and testing.*
- *Conduct at least one new employee orientation each year.*
- *Develop and implement annual audit training plan.*
- *Develop position descriptions for OA attorney-advisors.*
- *Develop an employee exit survey form with instructions. Conduct exit surveys with all exiting staff to obtain feedback on any issues and areas for office improvement.*
- *Conduct all-hands meeting once a quarter. Audit staff will be invited to suggest agenda topics to their respective SAMS or DAIGA.*
- *Provide basic FOIA/PA training to OIG staff.*
- *Conduct meetings between the Employee Survey Advisory Group and the AIGA on a quarterly or other mutually agreed upon schedule to discuss issues of continuing concern among audit staff.*
- *Incorporate instructional opportunities into investigatory training requirements.*
- *Complete training identified in Individual Development Plans.*
- *Participate in interagency training.*
- *Maintain investigative training records and review investigative core competency requirements.*

OIG conducted a biennial survey of its staff in February 2008 and received responses from 78 percent of the office's full-time employees. The results are being analyzed by a committee of staff members, who will present their findings at an upcoming meeting with all OIG staff. A preliminary review indicated that the office received positive ratings on all questions involving its use of resources, management planning, internal communications and coordination, OIG impact on NSF, and the OIG Knowledge Management System (KMS). This

continues a trend in the surveys of the past few years showing improvement in performance, especially in those areas that had previously been identified as needing more management attention. Once the results have been discussed in the office-wide meeting, OIG will develop a plan for correcting any problems identified in the survey.

Numerous enhancements were made to the KMS to improve the efficiency of administrative, audit, and investigative functions. These included a time-tracking system for investigations staff, improved procedures for entering personnel data, and new modules for monitoring OIG contracts, conducting audit planning, maintaining staff training records, and tracking OIG outreach activities. The KMS user manual was updated to reflect these improvements. The IT specialists also used the OIG monthly meetings to update office staff on system changes and conduct training on the use of new modules.

The IT specialists within the office provided training to all new employees and to staff promptly as problems were identified or new system configurations were implemented by NSF. They replaced 30 aging desktop computers, procured 8 new laptop computers, and provided upgrades for existing equipment. OIG obtained a new high-speed internet connection for the Denver office that not only resulted in significant cost savings, but also enabled videoconferencing to improve Denver staff participation in office-wide meetings, audit staff meetings, team/project conferences, and other interactive group activities. OIG tested and implemented a new automated-dialing system for fast and reliable communications with OIG staff in the event of a disruption of NSF operations or other emergency. A subsequent test resulted in successful contact with all but one staff member.

To provide developmental opportunities for students and others outside OIG, the office continued its policy of recruiting interns and other staff for part-time or temporary positions. Over the past 12 months, we have had four students under the federal Student Temporary Employment Program and Student Career Experience Program, one summer intern under the Hispanic Association of Colleges and Universities program, one student from the Washington Internships for Native Students, and six student interns to provide investigation support while they attend law school. We have also used the Federal Career Intern Program for hiring one full-time employee, and OIG accepted two detailees from NSF and one volunteer from the faculty of a Pennsylvania university who wanted to learn about preserving scientific integrity and preventing research misconduct.

Annual training was conducted for all OIG staff on the Freedom of Information and Privacy Acts, conflicts of interest, and Office of Special Counsel requirements. The agency also conducted its annual IT security awareness training for all staff, and the OIG monthly meetings were used to convey training on a variety of topics involving OIG procedures for handling audits and investigations, administrative processes, updates on IT modifications, OIG outreach activities, NSF directorate functions and priorities, and other areas related to OIG work. We were also committed to making as much individual and group training available as the budget allowed to provide basic skills to new staff and enhance the capabilities of more experienced employees. As a result, virtually all OIG staff received job-related training approved by their supervisors during

the 12-month period, and all peer-review and audit standards for training were met. In total, OIG staff attended 363 training events. OIG also conducted employee orientation for all new staff and used the NSF clearance form to process out departing employees.

**Audit.** To comply with the *Government Auditing Standards* requirement that all government auditors complete 80 hours of continuing professional education (CPE) every two years, all auditors identify in their Individual Development Plans courses that will fulfill their CPE requirements as well as enhance their professional expertise. The Office of Audit tracks training hours for each audit staff member and approves a training plan that will ensure that all auditors comply with the CPE requirements standards. In addition, to further strengthen the professional expertise of staff, the Office has developed position descriptions for attorney advisors. This action completes a project initiated last year to develop position descriptions and competencies for all audit staff. The development of the new position descriptions and competencies, the use of Individual Development Plans to identify courses that will most effectively meet federal auditing requirements and enhance professionalism, and the monitoring of staff training helps ensure a competent, well-trained staff, which is essential to high-quality work.

Improving office operations also serves to raise employee morale and strengthen the professional expertise of OIG staff. During this performance year, the Office of Audit implemented three new strategies to obtain feedback on employee satisfaction. First, it initiated quarterly all-hands meetings to improve communications among the audit teams and discuss issues of common interest. Second, as a follow-up to the 2006 employee survey, the Office established an Employee Survey Advisory Group, which meets approximately quarterly with the Associate Inspector General for Audit to discuss issues of continuing concern to audit staff. Third, this year the Office instituted an employee exit survey form to obtain ideas on improving working conditions. By improving communications and providing regular feedback to management, these new strategies help retain talented staff and foster professionalism.

**Investigations.** During this performance period, the Office of Investigation maintained the high degree of motivation and professional competence possessed by our well-trained staff. All Office staff prepared Individual Development Plans that identified training opportunities deemed appropriate for professional development and career enhancement. Approximately 80 percent of the proposed training was accomplished. All training certificates were entered into our training system electronic records, ensuring that management can effectively monitor staff achievement of required core competency training.

OIG staff participated in the provision of interagency training. As noted above, we hosted the widely acclaimed NSF OIG Grant Fraud Workshop, during which veteran investigators provided training to 130 attendees from over 30 departments and agencies. Office staff also provided interagency training at the Federal Law Enforcement Training Academy, as well as extensive internal training to OIG personnel.

## 2. Improve communication and collaboration within OIG.

- *Facilitate information exchange and referrals among the Audit, Investigation, and Administrative units.*
- *Share information about audit, investigative, and administrative activities at all-staff meetings.*
- *Strengthen Investigations/Audit/Administrative teams performing OIG/NSF liaison duties.*
- *Conduct periodic meetings between audit and investigation managers to discuss cross-cutting issues, mutual concerns, and cooperative efforts.*
- *Use office-wide committees for completion of various OIG projects and activities.*
- *Conduct periodic informational meetings for administrative staff from each OIG unit.*
- *Ensure staff participation in the development and implementation of the annual OIG Performance Plan.*

The exchange and referral of information among OIG units has improved significantly since they were identified in the employee survey several years ago as an area needing attention. All units have contributed to improved communication and collaboration within OIG through participation in formal and informal meetings, activities, and training events. Audit and Investigations staff met quarterly this year to discuss issues of mutual concern and to monitor matters that have been referred between the offices. Many referrals are explored during these meetings, and while some are found to lack substance, action is taken on any deemed to be significant. Over the past 12 months, seven formal referrals were made between the audit and investigation units. In addition, a number of brainstorming sessions between Audit and Investigations staff have been convened to generate ideas for proactive reviews, investigative priorities, and audit planning.

At every OIG “all-hands” monthly meeting, members of the individual OIG units gave presentations to the entire staff about recent audits, investigations, and administrative matters of interest. Weekly senior staff meetings were used by managers to discuss cross-cutting issues and promote cooperation in mutual efforts, and individual managers met whenever necessary to coordinate the different units’ activities. OIG established committees composed largely of volunteers from all three units to handle a variety of tasks, from tabulating and analyzing the employee survey results to planning the annual office retreat. The OIG Administrative Manager convened regular meetings of the administrative staff from each unit to disseminate information about office and agency procedures, discuss common issues, and meet with representatives of such NSF offices as the Human Resources and Management Division. Staff members from across the OIG are also involved in developing the annual OIG Performance Plan.

There was strong participation in the OIG liaison program, in which staff members from different OIG units are paired to establish an ongoing channel of communication with their designated NSF directorate, division, or office.

### 3. Ensure effective external communications and consultation with our stakeholders.

- *Produce timely external reports on OIG results and issues.*
- *Provide testimony and other requested information to congressional committees.*
- *Provide briefings to the NSB, Congress, OMB, NSF, and others regarding OIG plans, priorities, and progress.*
- *Prepare timely OIG budget requests.*
- *Issue two OIG Newsletters by email.*
- *Revise statistical section of Semiannual Report to make it more useful.*
- *Update NSF leadership regularly on OIG activities and concern.*
- *Participate in committees and task forces, as appropriate.*
- *Collaborate with federal and international agencies to advance common audit, investigative, and management goals.*
- *Provide leadership and active participation in the IG community.*
- *Track and coordinate GAO audits of NSF programs.*
- *Develop guidance for the OIG/NSF liaison program.*
- *Conduct active outreach to NSF and the research community.*
- *Ensure that most liaison teams include representatives from more than one OIG unit.*
- *Improve presentation and content of OIG website.*
- *Track usage of OIG website.*
- *Ensure that FOIA/PA requests are processed in a timely manner.*
- *Submit article(s) for publication in appropriate journals.*

During the past year, OIG prepared all reports for which it was responsible, including two Semiannual Reports to Congress, NSF's Financial Statement Audit Report, the FY 2007 Federal Information Security Management Act (FISMA) evaluation, an OIG Performance Report, and a Management Challenges Letter, all of which were issued within the timelines prescribed either by law or by specified due dates. We also issued our FY 2008 budget submission and prepared our FY 2009 request according to OMB and congressional requirements.

In May 2007, the IG was appointed Vice-Chair of the Executive Council for Integrity and Efficiency (ECIE) by the Deputy Director of the Office of Management and Budget. The ECIE is comprised of 34 Inspectors General who are appointed by the head of their respective agencies. In that capacity, the IG on several occasions was called upon to deliver congressional testimony on behalf of the IG community about proposed legislation to reform the IG Act. The IG provided testimony to committees in both the House and the Senate, and organized a meeting between ECIE IGs and key Senate staff charged with drafting the legislation. Congressional staff in some instances requested draft legislative language to address specific concerns raised by the ECIE, and NSF/OIG staff prepared the drafts in consultation with the other members of the ECIE. OIG staff members were also called upon to help the IG manage the affairs and meetings of the council.

Our staff and the independent financial statement auditor under contract to OIG gave numerous briefings to the Audit and Oversight Committee of the National Science Board. Several presentations focused on the status of NSF's financial

statement audit, the significance of its findings, and the corrective actions taken by the agency in response to previous financial audits. OIG staff also briefed the committee on the office's proposed budget submission, the annual audit plan, and significant investigations and audits. The IG met with the NSF OMB examiner, congressional staff, and other organizations about agency issues as needed. The IG and Deputy IG conducted briefings for the NSF Director and Deputy Director at regular intervals to apprise them of OIG's activities, discuss opportunities to improve agency operations, and inform them of OIG matters likely to come up in future meetings of the National Science Board.

In between issuances of our Semiannual Report to Congress, we released two electronic newsletters to inform NSF stakeholders on a timely basis of OIG's significant audits and investigations. The planned revisions to the statistical section of the Semiannual Report were not accomplished this year, as it will take more time to adjust our computer system to a new format. The OIG website experienced heavy usage, with over 245,000 hits during the past 12 months.

OIG was active in organizing international meetings to promote a better understanding of the different countries' approaches to oversight of science and technology funding, discuss areas of common concern, and identify best practices that could be applied more widely. In June 2007 the IG co-hosted an International Workshop on Accountability Challenges with the European Science Foundation in Strasbourg France. The agenda focused on evaluating and managing risks, misconduct in research allegations, and general auditing and internal control issues.

In September 2007, the IG and the Associate Inspector General for Investigation attended a World Conference on Research Integrity in Lisbon, Portugal. The purpose of the conference was to further world dialogue on the topic of research misconduct, as regulations and practices vary widely from one country to another. The event was closely linked to the OECD Global Science Forum (GSF) and attracted many of the same participants. Then in December 2007, the IG hosted a meeting of GSF at the National Science Foundation. Ongoing efforts to develop common principles for investigation and the resolution of research misconduct allegations with international implications were the primary focus of these meetings.

OIG staff made presentations to, or held discussions with delegations from the European Science Foundation, the U.S.-Israeli Bi-National Science Foundation, the Irish Health Research Board, the Korean Board of Audit and Inspection, and the Chinese Ministry of Science and Technology, to provide their expert opinions and personal insights concerning the oversight of scientific research and science funding.

OIG staff continued to actively participate in NSF committees. For example, Audit staff members were active in the Audit Coordinating Committee, which resolves coordination issues with NSF associated with the financial statement audit. The Senior Policy and Operations Advisor serves as an executive secretary to the Audit and Oversight Committee of the National Science Board. The Deputy IG participated in quarterly Division Director retreats and served as the OIG liaison for the agency's Office of Equal Opportunity. During the

past year we continued to advance our goal of enhancing communications with agency staff by presenting at NSF-organized events. OIG staff gave presentations at each of the NSF Program Manager's Seminars, which provide new NSF program managers with detailed information about the Foundation and its activities. OIG staff initiated 55 outreach events and participated in numerous other meetings and interactions with their NSF colleagues. We created a Liaison Guide to assist new personnel in this important role. Finally, we posted additional information and presentations to our website to enhance its value to our external audience.

OIG also continues to actively participate in committees, projects, and events supported by the IG community. Auditors provided leadership to interagency groups established to advance common audit goals. For example, the Associate Inspector General for Audit is the co-chair of the Financial Statement Committee of the Federal Audit Executive Council, audit staff are members of the President's Council on Integrity and Efficiency committee working with the Government Accountability Office (GAO) to make substantial revisions to the government-wide *Financial Audit Manual*, and have actively participated in the government-wide Single Audit Roundtable and the Financial Statement Audit Conference. OIG auditors also met monthly during this performance year with auditors from other federal OIGs in the Financial Statement Audit Network to discuss proposed accounting standards and requirements for federal financial statement audits, participated in IG committees working on human resource and training issues, and coordinated and tracked 12 GAO audits related to NSF.

Investigations staff have provided leadership within the IG community through their active participation with the National Procurement Fraud Task Force Grant Fraud Subcommittee, the Inspector General Academy, and the Federal Law Enforcement Training Center. Investigators have provided over 20 presentations to the research community, including presentations to universities, professional associations, and groups of NSF grant recipients. We have maintained effective communications with the public through our prompt responses to requests under the Freedom of Information Act, during which we have met 100 percent of our processing milestones. Finally, a member of our staff published an article in the *Journal of Public Inquiry* describing the positive impact compliance programs can have on research institutions and organizations.

## Reporting Requirements

Under the Inspector General Act, we report to the Congress every six months on the following activities:

Reports issued, significant problems identified, the value of questioned costs and recommendations that funds be put to better use, and NSF's decisions in response (or, if none, an explanation of why and a desired timetable for such decisions). (See pp. 5, 11, 35)

Matters referred to prosecutors, and the resulting prosecutions and convictions. (See pp. 27, 44)

Revisions to significant management decisions on previously reported recommendations, and significant recommendations for which NSF has not completed its response. (See pp. 22, 43)

Legislation and regulations that may affect the efficiency or integrity of NSF's programs. (See p. 7)

OIG disagreement with any significant decision by NSF management. (None)

Any matter in which the agency unreasonably refused to provide us with information or assistance. (None)

## ACRONYMS

AMISR	Advanced Modular Incoherent Scatter Radar
AOR	Authorized Organizational Representative
CAS	Cost Accounting Standards
CFO	Chief Financial Officer
CO	Contracting Officer
COTR	Contracting Officer's Technical Representative
COI	Conflict of Interest
COV	Committee of Visitors
DACS	Division of Acquisition and Cost Support
DCAA	Defense Contract Audit Agency
DD	Deputy Director
DGA	Division of Grants and Agreements
DIAS	Division of Institution and Award Support
DoD	Department of Defense
DoJ	Department of Justice
ECIE	Executive Council of Integrity and Efficiency
EPSCoR	Experimental Program to Stimulate Competitive Research
FFRDC	Federally Funded Research and Development Centers
FISMA	Federal Information Security Management Act
GAO	Government Accountability Office
GPRA	Government Performance and Results Act
GSF	Global Science Forum
HHS	Department of Health and Human Services
IG	Inspector General
MIRWG	Misconduct in Research Working Group
MREFC	Major Research Equipment and Facilities Construction
NSB	National Science Board
NSF	National Science Foundation
OECD	Organization for Economic Co-operation and Development
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPP	Office of Polar Programs
P Card	Purchase Card
PCIE	President's Council on Integrity and Efficiency
PI	Principal Investigator
PFCRA	Program Fraud Civil Remedies Act
QCR	Quality Control Review
SBIR	Small Business Innovation Research
STC	Science and Technology Centers
STEM	Science Technology Education and Mathematics
USAP	United States Antarctic Program



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