National Science Foundation

Office of Inspector General

Semiannual Report to Congress

March 2010

About The National Science Foundation...

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

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

And The Office of the Inspector General...

NSF's Office of the Inspector General promotes economy, efficiency, and effectiveness in administering the Foundation's programs; detects and prevents fraud, waste, and abuse within the NSF or by individuals that recieve 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.

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From the Inspector General

This Semiannual Report to Congress highlights the activities of the National Science Foundation Office of Inspector General for the six months ending March 31, 2010. During this period, our office issued fifteen reports, four of which contained more than $115,000 of questioned costs. Our investigative staff closed 28 civil/criminal investigations and 32 administrative investigations, had six research misconduct cases result in findings by NSF, and recovered $1,408,318 for the government.

Our efforts to ensure proper stewardship of NSF's American Recovery and Reinvestment Act (ARRA) funds are ongoing. We are currently reviewing a small sample of ARRA awards to ensure that Recovery Act goals are being met and that awardees are adequately prepared for the Act's additional financial and reporting requirements. We are beginning to focus attention on NSF's ability to manage its largest ARRA projects, such the Alaska Region Research Vessel. During this reporting period, we completed a review of NSF's efforts and controls to oversee the quality of data ARRA recipients are required to report. It is critical that this data be accurate, as it provides evidence to support whether recipients of ARRA funds are meeting the Act's reinvestment and job creation goals. We found that NSF is developing a sound process to review the quality of reported data, and we will continue to provide suggestions for future reporting cycles.

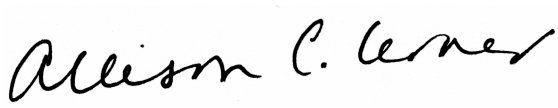
Other audit work completed this period includes labor effort reporting audits at five universities, the last in a series of sixteen reviews on this subject. Later this year we plan to issue a summary report describing the most significant issues found in this series of audits to assist NSF and universities in improving oversight and reporting of their labor effort charges. Finally, we issued two alert memoranda raising concerns about contract monitoring for cost reimbursement contracts, which was reported as a significant deficiency in NSF's FY 2009 financial statement audit. Cost reimbursement contracts are high risk because of the potential for cost escalation and because contractor's costs for performance are paid regardless of whether the work is completed.

Significant investigative results during this period include a university returning $380,000 in CAREER award funds drawn down on the award after the PI had left the university. Examples of our criminal investigations included a settlement agreement that resulted in a university returning $500,000 to NSF after making false claims and certifications related to a cooperative agreement.

Because research misconduct damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in government-funded research, we aggressively pursue such allegations against NSF-funded researchers. In the past six months, we found that a PI breached the confidentiality of NSF's merit review process; a scientist with a Florida company plagiarized

in four Small Business Innovation Program proposals, and another PI plagiarized text from a funded NSF proposal. I am pleased to report that NSF took strong action on several previously reported cases and debarred four individuals in response to our recommendations.

Our work reflects my office's sustained commitment to helping NSF be an effective steward of taxpayer dollars and benefits from the support of NSF management across the Foundation. We look forward to our continued constructive partnership with NSF to this end.



Report Highlights

- The OIG continued its proactive oversight of NSF's management of its Recovery Act funds with an emphasis on the accuracy of data ARRA recipients are required to report to NSF.

- OIG alert memoranda detailed deficiencies in NSF's monitoring of two large cost reimbursement contracts. Contract monitoring for cost reimbursement contracts was also reported as a significant deficiency in NSF's FY 2009 financial statement audit. In FY 2009, NSF obligated approximately $480 million for contracts for products and services. Of this amount, $361 million was obligated for cost reimbursement contracts, of which $270 million allowed for advance payments for three contractors, with the majority going to one contractor.

- Audits of labor effort reporting at five universities, the last in a series of sixteen reports, identified weaknesses such as noncompliance with federal effort reporting requirements, inadequate effort reporting training, and insufficient justification of labor cost transfers between awards. NSF annually provides more than $1.2 billion, approximately one-third of all NSF funds to universities, for salaries and wages.

- A Massachusetts university drew down nearly $200,000 on a CAREER award after the PI had left the university. The university terminated the award and returned $380,000 to NSF.

- Our investigation of fraud and mismanagement of NSF funds under a cooperative agreement at a Georgia university determined that a PI used NSF funds improperly and charged costs that were not related to the NSF project. A settlement agreement resulted in $500,000 in restitution and a five-year compliance agreement.

- In response to OIG recommendations, NSF debarred four individuals, including a former professor who had violated his university's conflict of interests and outside compensation policies for many years.

Audits & Reviews

During this period, our office issued fifteen reports, four of which contained more than $115,000 of questioned costs. Our efforts to help NSF ensure proper stewardship of its American Recovery and Reinvestment (ARRA) funds are ongoing. At the request of the Recovery and Accountability Board, we conducted an audit to determine whether NSF had a process to perform the limited data quality reviews required of recipients' ARRA reports. We have also begun conducting reviews at selected universities, nonprofits, and contractors that received ARRA funds to determine whether they have the ability to segregate ARRA funding and provide accurate and timely quarterly reporting.

Our audits and alert memos resulted in significant recommendations to improve NSF's contract management; to strengthen controls over labor effort reporting; and to help ensure that federal funds are spent properly. In other work, NSF concurred with our recommendation to develop a performance management process appropriate for its senior executives assigned under the Intergovernmental Personnel Act. We found that the National Science Board was generally in compliance with the Government in the Sunshine Act and made several recommendations to increase the Board's transparency and openness. As a result of our report on NSF's audit resolution process, the OIG and NSF are working together to identify ways to improve audit resolution and follow-up in order to effectively address recommendations in audits of awardee institutions.

Additionally, we reviewed 167 single audits of NSF awardees and requested that NSF coordinate with us during the audit resolution process in certain instances involving significant weaknesses. Finally, NSF's FY 2009 financial statements audit, conducted by an independent CPA firm on our behalf, reported a significant deficiency in contract monitoring for reimbursement contracts. We agreed with NSF's proposed corrective actions for nine of the ten audit recommendations and are awaiting additional information on the remaining recommendation.

Efforts to Ensure Proper Stewardship of ARRA Funds are Ongoing

The American Recovery and Reinvestment Act of 2009 provided additional funding of $3 billion to NSF, an approximate 50 percent increase over the agency's $6 billion FY 2009 annual appropriation. As noted in our September 2009 semiannual report, NSF quickly

HIGHLIGHTS

established a methodology for awarding these stimulus funds and produced policies and procedures that include new award terms and conditions specific to ARRA awards.

During this reporting period, the attention of both the government and recipients of ARRA awards has shifted to the recipient reporting requirements. Under ARRA, recipients are required to report quarterly on their spending and activities, and on the number of jobs supported by ARRA funds. In addition, under ARRA, NSF is required to establish a data quality plan that articulates its data quality review process that, at a minimum, meets OMB guidance requirements. An effective data quality review process is a major control for helping NSF ensure the accuracy of information its recipients' report.

At the request of the Recovery Accountability and Transparency Board and in conjunction with other members of the Recovery Board working group (whose members consist of the IGs of agencies that received ARRA funding), we conducted an audit to determine whether NSF had a process to perform the limited data quality reviews required of recipients' ARRA reports. We found that NSF is putting in place an adequate process that meets OMB requirements to identify material omissions and/or significant reporting errors. We made several suggestions for NSF to consider as it refines its process for future reporting cycles. Our suggestions included that NSF define "chronic reporting problems" and that NSF develop plans to incorporate ARRA recipient reporting in its continuing risk assessments. Subsequently, NSF noted that it has developed a multi-stage quality control plan for its federal review of recipient reporting and has successfully conducted data quality reviews for the first reporting period. As more reporting periods pass, we will be able to go back and see how well this process is working.

We are currently participating with other members of the Recovery Board working group on two additional reviews of recipient reporting for ARRA. The first is a follow-up on the just described audit of NSF's quality control process over recipient-reported ARRA information. This audit will look at NSF's data quality processes now that two full reporting cycles, including the review and correction of reported data, have been completed. The second is a review of the information that is being collected and reported by the recipients themselves and includes site visits to some NSF awardees to evaluate their reporting processes. By participating in these reviews, we are able to provide suggestions and recommendations for continuous improvement to the newly-developing recipient reporting processes at all levels.

During this reporting period we also began conducting reviews at large, medium, and small universities and nonprofits which received ARRA funds to determine whether they have the ability to segregate ARRA funding and provide accurate and timely quarterly reporting. As we conduct these reviews, we will inform NSF of any areas of concern we identify that require guidance or clarification from the agency. We believe that this approach will be valuable in assisting institutions in developing systems to control and report their ARRA funding.

Finally, we are beginning to focus on NSF's efforts to manage its largest ARRA projects. Under ARRA, NSF was appropriated $400 million for Major Research Equipment and Facilities Construction awards, which NSF has allocated to three facility projects: the Alaska Region Research Vessel, the Ocean Observatories Initiative, and the Advanced Technology Solar Telescope. We have initiated focused reviews of these projects and plan to develop monitoring strategies for each of them. Currently, we are completing an initial survey of the Alaska Region Research Vessel, the first of the major projects to be awarded. Because of the large dollar amounts of these complex awards, we believe that the strategy of an initial in-depth review followed by continuous monitoring, will allow for a proactive and value-added approach that will provide NSF management with insights that will help contribute to the success of these jobs.

Challenges in Contract Administration Continue

The Foundation continues to face challenges in contract administration. As described later in this report, contract monitoring for cost reimbursement contracts was reported as a significant deficiency in NSF's FY 2009 financial statement audit. Cost reimbursement contracts are high-risk because of the potential for cost escalation and because the contractor's costs for performance are paid regardless of whether the work is completed. In FY 2009, NSF obligated approximately $480 million for contracts for products and services. Of this amount, $361 million was obligated for cost reimbursement contracts, of which $270 million allowed for advance payments for three contractors, with the majority going to one contractor. Given the amount of money it expends to procure goods and services, it is imperative for NSF to have the capability and capacity to perform contract administration tasks adequately on its large cost reimbursement contracts.

During this semiannual period, we issued two alert memos to NSF identifying deficiencies in its monitoring of two large cost reimbursement contracts.

Significant Deficiencies Identified in NSF's Administration of Raytheon Contract

We issued an alert memorandum regarding a significant deficiency in NSF's administration of its contract with Raytheon Polar Services Company (Raytheon), which provides services to NSF's Antarctic Program. Specifically, NSF has not had an approved CAS Disclosure Statement for this contract from 2005 to the present. An approved CAS Disclosure Statement is essential because it is the basis for Raytheon classifying and billing costs to the contract. Currently, NSF does not have a clear understanding and agreement with Raytheon as to how Raytheon should classify and charge direct and indirect costs to its contract. As a result, NSF risks paying unallowable costs on this contract. We recommended that NSF request DCAA to audit Raytheon's Disclosure Statement and that NSF strengthen its contract administration to ensure that contractors' Disclosures Statements are audited in a timely manner.

NSF agreed with our recommendations and has contracted with DCAA to perform an audit of Raytheon's CAS Disclosure Statement and an audit of Raytheon's proposed costs for a one-year extension of that contract. Since the

issuance of the alert memo, DCAA found Raytheon's proposal for the extension period was inadequate, citing many areas where the documentation provided did not support the proposed costs. NSF has indicated that it will continue to work with DCAA to ensure that Raytheon provides an adequate cost proposal and Disclosure Statement and will also continue to improve its contract administration.

Significant Deficiencies Identified in NSF's Administration of Contract and Awards with Non-Profit Organization

We issued an alert memo regarding significant deficiencies in NSF's administration of $1.5 billion in contracts and other awards since 2003 with the Consortium for Ocean Leadership (COL), an entity that resulted from the merger of the Joint Oceanographic Institutions and the Consortium for Oceanographic Research and Education. The Federal Acquisition Regulation (FAR) requires that contractors subject to Cost Accounting Standards submit CAS Disclosure Statements and cost impact proposals before receiving a contract, entering into a merger, or changing accounting practices. Further, the federal agency should determine that the contractor's accounting system is adequate at least every four years. NSF and COL did not fully comply with these requirements.

As a result, NSF does not have a clear understanding or agreement with COL about the cost accounting practices that are being used to charge costs to NSF's contracts and other awards. Therefore, NSF might be paying for unallowable costs. Specifically, we suggested that NSF request an audit of COL's Disclosure Statements since 2007. We encourage NSF to continue to address the issues we identified and and to continue its efforts to improve the overall quality of its contract administration.

Labor Effort Audits at Five Universities Disclose Internal Control Weaknesses

In 2005 the OIG began conducting a series of audits to evaluate whether universities' internal controls are adequate to properly manage, account for, and monitor salary and wage costs; and to determine whether these costs are allowable in accordance with federal costs principles. During this reporting period, we completed the final five audits in this series, to bring the total number of university systems reviewed to sixteen. Later this year we plan to issue a summary report describing the more significant problems found in this series of audits to assist NSF and universities in improving oversight and reporting of their labor effort charges.

It is critical for university labor effort systems to be sound since NSF annually provides more than $1.2 billion for salaries and wages to universities, approximately one-third of the annual NSF grant expenditures at these universities. This figure will increase over the next few years with the addition of ARRA funds.

These audits have continued to identify key weaknesses including the lack of a suitable means to validate the labor charged to NSF grants and understanding of the effort certification process. In addition, the audits identified noncompli-

ance with federal and university effort reporting requirements, ineffective oversight, inadequate effort reporting training and insufficient justification of labor cost transfers between awards.

The systemic internal control weaknesses identified raise concerns about the reliability of the effort reports universities use to support labor costs charged to NSF grants. As a result of these deficiencies, NSF may have paid for unallowable costs or for work that did not benefit its grants. Specific information about the five audits completed in this reporting period follows.

Systemic Internal Control Weaknesses Over Effort Reporting Found at University of Delaware

Although the University of Delaware had established a federal grants management program, our audit disclosed systemic weaknesses in the effort reporting program. Specifically, our review of 30 sampled employees with total FY 2008 NSF salary charges of $696,648, found that the university's system did not ensure salaries and wages charged to NSF awards reasonably reflected actual work performed on the sponsored projects. The significant nature of these deficiencies raises concerns about the reasonableness and reliability of the remaining $6.6 million in FY 2008 labor charges to NSF grants and the $33.3 million salary portion of Delaware's other $115 million of Federal award expenditures. For example:

- Six employees lacked an understanding of their responsibilities for labor effort reporting. As a result, they could not accurately validate the charges made to NSF grants.
- Twenty one of 74 effort reports, representing $192,795 in labor charges were certified up to 600 days after the university's mandated turnaround time. The longer it takes to certify reports, the less reliable the effort reports may be.
- The system was not programmed to capture or upload certain transactions. As a result, $14,435 of our sampled efforts were not approved.
- Seven employees incorrectly charged administrative time or excess salary payments to NSF grants. As a result, the audit questioned $21,522 in salary for charges that did not directly benefit the NSF grants.
- Delaware's internal audit of its effort reporting systems identified similar control weaknesses including late certifications and lack of a policy defining what constitutes suitable means of verification.

These weaknesses occurred primarily due to inadequate oversight in both daily operations and periodic independent reviews of the system. We recommended that NSF work with the University's cognizant agency to ensure that Delaware addresses the weaknesses found in the audit; specifically that it develops policies to comply fully with federal regulations, requires labor effort training, and improves its oversight of the effort reporting process. In response to both its internal audit and to our review, Delaware has taken actions to improve its effort reporting system.

State University of New York - Stony Brook Not Using Suitable Means of Validating Labor Charged to NSF Grants

An audit of the State University of New York - Stony Brook's labor effort reporting system found that employees did not have first-hand knowledge as required by federal regulations when they certified effort reports on NSF grants. Specifically, employees who were not in a position to know whether work was performed, certified 14 of 30 employees' effort reports which represented $235,737 or 33 percent of NSF salaries reviewed. In addition, Stony Brook's effort reporting system was not fully integrated to include all academic, administrative, and research effort for both sponsored and all other work activities. Six of 30 sampled employees did not include all activities on their effort reports.

The systemic nature of these control weaknesses calls into question the accuracy of the $8.1 million for labor costs that Stony Brook charged to its NSF awards in FY 2008 and the salary portion of $125.4 million in other federal awards may be similarly insufficiently supported.

We made several recommendations including that Stony Brook improve policies and procedures, require labor effort reporting training, and fully integrate effort reporting systems Stony Brook agreed with the first two recommendations but asserted that its systems met federal requirements.

University of Nevada - Reno Is Not Complying Fully with Effort Reporting Requirements

An audit at the University of Nevada - Reno determined that, while the university had improved its effort reporting system, it was not in compliance with all federal, NSF, and university effort reporting requirements. For example, contrary to federal requirements, the university's electronic reporting system did not appropriately provide faculty effort reports that consistently reflected all compensated work activities. The instances of noncompliance raise concerns about the reliability of the $2.2 million of FY 2008 labor charges to NSF grants as well as the reliability of the labor costs claimed on the university's other $78 million of federal awards.

Recommendations to address these deficiencies included that Reno improve its policies to ensure compliance with federal and NSF requirements, and that the university require effort reporting training. The university generally concurred with the recommendations and has taken steps to address them.

University of Wisconsin - Madison Needs to Strengthen Controls over Charging Labor to NSF Grants

The audit found that Wisconsin generally had a sound grants management program. Prior to our audit of its FY 2007 labor effort, Wisconsin implemented a new effort reporting system. The new system improved compliance with federal and NSF requirements; however, our review identified remaining weaknesses, the most significant of which were inadequate oversight of the effort reporting process and inadequate training of personnel involved in the labor effort reporting process. Wisconsin has not performed a comprehensive review of its past

or current system. In FY 2007, Wisconsin received approximately $719 million in Federally-sponsored projects, of which $125 million was funded by NSF; $31 million of the NSF funding was for labor.

We made several recommendations including that Wisconsin develop clear written policies for periodic oversight of its effort reporting process and require effort reporting training. The university generally agreed with our recommendations.

Washington University in St. Louis Needs to Enhance Oversight of its Effort Reporting System

An audit of Washington University's (WUSTL) labor effort reporting system found that overall the university had adequate systems to ensure that the time charged to an NSF award represented the actual time spent on that award. The audit did not disclose any significant deficiencies.

However, the audit did identify several areas of concern WUSTL should address to enhance implementation and oversight of its effort reporting. For example, during the period audited, the university did not require effort report training at all of its campuses, and the effort reporting system was not fully integrated to include all academic, administrative, and research effort. Thus, effort reports might misstate the actual effort charged to the various activities. The implementation of a new electronic reporting system is expected to resolve this issue.

We recommended the University address these concerns to ensure reliability of the $6.3 million in labor costs to NSF awards charged in FY 2008, as well as the labor costs claimed on $432 million of other federal awards. During the course of the audit, the university addressed the concerns identified.

Significant Grant Audits

Our grant audits completed this period found that two NSF awardees, a university and a non-profit, had material internal control deficiencies in subrecipient monitoring in addition to other deficiencies. Awardees that pass federal funds through to subrecipients must monitor subrecipients to ensure that their financial systems are adequate to manage the federal money they receive. NSF risks paying subrecipient costs without the assurance that the costs are permissible if such monitoring is insufficient.

University Needs to Strengthen its Controls over Subrecipient Monitoring

An audit of five awards amounting to $14.9 million in costs and $1 million in cost sharing claimed by the University of Missouri at Columbia found significant internal control deficiencies in the areas of subaward and payroll costs. Specifically, subaward costs charged to three of the NSF awards representing $9.1 million or 61 percent of the total costs claimed on all five awards audited, were not adequately monitored. The University's subaward monitoring policies were

not followed and were not sufficiently comprehensive. As a result, the University's internal controls over subaward costs do not provide assurance that the expenditures claimed by the subawardees are accurate, valid, and allowable.

In addition, some labor cost transfers were not consistently approved and supported with proper documentation. Also, effort reports were not recertified after changes were made, which increases the risk that irregularities that affect NSF and other federal grant funds may not be detected.

The audit recommended that Missouri strengthen its policies to ensure adequate supervisory review of subaward risk assessments and that the university require adequate justification for all labor cost transfers.

The University agreed with the recommendations pertaining to labor cost transfers and agreed that the subaward risk assessment process should be reviewed by supervisory personnel, but asserted that its monitoring of subawards was adequate. NSF is working to resolve the findings and recommendations contained in the audit report.

Limited Subrecipient Monitoring Noted at Non-Profit Organization

An audit of $74.8 million in costs claimed by Network for Earthquake Engineering Simulation (NEES) Consortium found that NEES had addressed many financial management issues identified in prior audits; however, it performed limited sub-award monitoring on its nineteen subawards amounting to $64 million (86 percent) of the total costs claimed on the award.

The audit found that the Consortium needed to improve its subaward monitoring process and document its process for approving fringe benefit and indirect cost allocations; cash drawdowns; timekeeping for labor costs allocations; and participant support costs.

NSF has recompeted the award; therefore, the auditors did not make recommendations to the Consortium, but made several suggestions to NSF to enhance the pre-award and overall award portfolio management processes. The suggestions included ensuring that new awardees have a risk-based subaward monitoring process prior to award and properly documenting financial policies and procedures.

Significant Internal Reports

NSF Takes Steps to Address Challenges of Rotating Executive Workforce

To maintain a world-class scientific workforce, NSF supplements its permanent, career workforce with a variety of non-permanent staff. All of the non-permanent appointments are federal employees, except for Intergovernmental

Personnel Act (IPA) assignments, who remain employees of their home institution. At the time of our audit, "rotating directors", in the form of IPA assignees, filled over a quarter of NSF's executive-level, science positions.[1]

The Senate Committee Report accompanying NSF's 2010 appropriations bill expressed "deep concern" with systemic workforce management issues at NSF. While noting the benefits of NSF's rotational director model in bringing the agency fresh scientific insight and perspective, the report also cited its potential for creating gaps in management oversight. We conducted an audit to determine if NSF has a rotator model in place that ensures effective personnel-management performance and oversight at its executive level

Based on our limited assessment, we found that NSF generally has the components of an effective personnel management system and followed Office of Personnel Management and government-wide requirements. Nothing came to our attention to indicate that NSF's personnel management system was ineffective. With the exception of performance management, NSF applied the components of effective personnel management to both its permanent and temporary staff and IPAs in the same manner.

However, differences exist in NSF's management of various appointments at the executive level. Specifically, NSF does not include IPAs in its formal performance management system even though they function in the same capacities as NSF's federal executives. Additionally, we noted that IPAs may not have prior working knowledge of the federal government culture or of federal government management processes because they are rotating into NSF from universities and other institutions.

As a result, NSF's rotating director model presents challenges to effective personnel-management performance and oversight. Because IPAs do not have a written record of performance, NSF risks not holding them accountable, as it does its federal employees, in accomplishing NSF's mission and goals. Also, the fact that IPAs do not always have prior knowledge of, or experience with, the federal workplace culture or federal government management processes gives them a steep learning curve when they arrive at NSF.

NSF has acknowledged the challenges that arise from its use of rotating executives and has taken some steps to mitigate these challenges. For example, NSF's attempts to "pair" rotators with an experienced career executive to facilitate their acclimation to the federal government environment. However, NSF could do more to address the challenges associated with the rotating director model. We recommended that the NSF Director develop a performance management process appropriate for IPAs and that NSF continue current plans and efforts to integrate IPA executives into the agency. NSF concurred with our recommendations.

1 For our purposes, we included assistant/office directors, executive officers/deputies, division directors, and division deputies/executive officers in our definition of executive- level science staff. We did not include the NSF Director, Deputy Director, or staff at the AD-5 level.

National Science Board Generally in Compliance with Sunshine Act

The purpose of the Government in the Sunshine Act is to open the government's deliberation processes to the public. The Act applies to the National Science Board and requires that the Board's meetings be open to the public, with the exception of meetings that qualify for ten narrow exemptions. Our audit of the National Science Board's compliance with the Sunshine Act found that the Board was in full compliance with the Act, from January 1, 2007, to August 6, 2009, when it made decisions to close selected sessions of upcoming Board meetings. We did not find any instance where the Board had specifically decided to close a meeting that should have been held open to the public. In addition, for most open meetings, the Board complied with the Sunshine Act's procedural requirements, including proper public announcement of meetings within the statutory time frames.

However, our audit raises some concerns. Most notably, the Board could not produce complete transcripts or recordings, as required, for 9 of the 28 closed meetings we reviewed. We also found several instances where the Board made impromptu adjustments to meetings by adding items to the discussions without following all of the Act's requirements for such changes.

We recommended that the Executive Officer of the National Science Board ensure that closed meetings are properly recorded and transcribed, evaluate ways to improve the current process for setting agenda items, update the Board Office's Sunshine Act policies and procedures, and ensure that all Board members and pertinent staff receive periodic training on Sunshine Act requirements. The Board Office generally agreed with our recommendations.

Improvements Needed in NSF's Audit Resolution Process

Audits conducted by the OIG of institutions receiving NSF funds are one mechanism available to NSF to effectively oversee its awarded funds. The process of resolving audit recommendations and following up to ensure that institutions implement corrective action is an important tool to address current issues and to prevent future issues at NSF-funded institutions. Therefore, a robust audit resolution and follow-up process is critical to ensure that institutions receiving funds from NSF take the necessary corrective actions to properly manage that funding. We found that NSF's policies and procedures for resolving audit recommendations were not adequate to effectively address recommendations in OIG audits of awardee institutions. As a result, deficiencies in how institutions manage their NSF awards, which were identified in audits, may continue or worsen, increasing the risk that NSF funds may not be used as intended.

Specifically, NSF's audit resolution policies and practices do not recognize the shared responsibility between the agency and the OIG for resolution of external audits, as required by OMB. Therefore, NSF may negotiate what we would deem to be incomplete or ineffective corrective action plans in our assessment of 19 of 34 sampled audits. In addition, NSF does not consistently follow-up to ensure that awardee institutions implement corrective actions.

We recommended that the NSF Director, in conjunction with the Inspector General issue an overarching policy directive that recognizes audit resolution as an agency priority and a shared responsibility between NSF management and the OIG. We also recommended revisions to the agency's audit resolution and follow-up policies, procedures, and practices. The agency generally agreed with our recommendations, and NSF and the OIG are working together on ways to improve audit resolution and follow-up.

Audit Resolution

California Institute of Technology Implements OIG Recommendations to Improve Labor Effort Reporting

At the request of California Institute of Technology (Caltech) officials, we conducted a follow-up review of Caltech's implementation of recommendations we made in our March 2007 audit of its labor effort reporting process. We found that Caltech had corrected all the internal control weaknesses we identified. Caltech took a number of actions including updating its policies and procedures to better document the review and approval of labor costs, and requiring officials involved in the labor effort process to receive periodic training.

Georgia Institute of Technology Strengthens Controls Over Labor Effort Reporting

The Georgia Institute of Technology (Georgia Tech) has taken steps to address the internal control weaknesses for justifying and approving after-the-fact transfers of labor costs between federal awards that we identified in our June 2009 audit. Georgia Tech took a number of actions to strengthen monitoring and the oversight of labor effort reporting process, such as requiring written justification and approval for labor cost transfers between awards and for changes to monthly workload allocation reports.

Cornell University Strengthens Controls Over Certification of Labor Effort

Cornell has implemented several corrective actions in response to our June 2009 audit, which found that employees at Cornell did not comply with federal regulations when they certified effort reports without having first-hand knowledge or a suitable means of verifying that the work was performed and that the work benefitted NSF awards. Cornell has revised its policies to include definitions of what constitutes a suitable means of verification and is requiring that officials involved in effort reporting process receive periodic training.

Purdue University Enhances Labor Effort Training

Purdue has taken several actions to enhance labor effort training for both business office staff and principal investigators (PIs) and took additional steps to correct effort reporting issues related to proposal writing and graduate student teaching efforts. Also, NSF has sustained $12,630 in questioned costs in

incorrect charges for proposal writing and teaching effort to NSF grants which we identified in our 2009 audit. Finally, Purdue created a new position in Sponsored Program Services to provide additional oversight of the effort reporting process.

Arizona State University Strengthens Effort Reporting Procedures

Arizona State officials significantly strengthened their effort reporting system by implementing more stringent certification procedures, requiring follow-up to ensure timely certification of reports, and establishing an independent process to periodically review its reporting system to ensure compliance with federal, NSF, and university requirements. NSF sustained the $29,700 in costs questioned by the audit, as well as an additional $2,284 in unallowable costs identified during audit resolution.

A-133 Audits

Single Audits Identify Material Weaknesses and/or Significant Deficiencies at 49 NSF Awardees

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 must 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.

For the 167 audit reports reviewed and referred to NSF's Cost Analysis and Audit Resolution (CAAR) Branch this period, 2 covering NSF expenditures of $3 billion during audit years 2006 through 2009, the auditors identified 152 findings at 76 NSF awardees. Four awardees received qualified opinions on their financial statements and 12 had adverse, qualified, or disclaimers of opinions on their compliance with federal grant requirements.

The auditors identified material weaknesses and/or significant deficiencies in 50 reports (66 percent of reports with findings), indicating substantial concerns about the awardees' ability to manage NSF funds. Awardees' lack of internal controls and noncompliance with federal requirements included: untimely and/or incorrect reporting of time and effort; inadequate support for salary/wages, equipment, travel, and indirect costs charged to awards; inadequate monitoring of subrecipients; inability to prepare the financial statements; and late financial and/or progress reports.

2 We reviewed 4 additional reports but rejected them due to audit quality issues. Once we receive the revised reports, we will review them, and if acceptable, refer them to NSF for resolution.

We also examined 73 management letters accompanying the A-133 audit reports and found 46 deficiencies that affected NSF. Auditors issue 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 deficiencies included inadequate tracking, managing, and accounting for NSF costs, and ineffective segregation of duties. These deficiencies affected control processes that are essential to ensuring stewardship of NSF funds and preventing fraud and abuse.

We provided the results of each audit report to NSF and, where appropriate, highlighted our concerns related to opinions or findings. In certain instances, such as reports which contained significant deficiencies or material weaknesses repeated for three or more consecutive years and/or reports which identified $100,000 or more in questioned costs to NSF awards, we requested that NSF coordinate with us during the audit resolution process. NSF coordinated with us as requested prior to completing resolution of five reports. NSF also resolved two reports without coordinating with us as requested. Both of these reports contained significant deficiencies which had been repeated for at least four consecutive years, and had been designated "OIG special interest." We previously reported on our efforts to reach agreement with NSF officials on the process for resolving recommendations for A-133 reports for which we have requested coordination.[3] As noted in our prior discussion of the audit resolution process, staff from NSF and OIG are currently working together to improve the audit resolution and follow-up process.

Audit Timeliness and Quality Deficiencies Found in 55 Percent of Single Audits

The audit findings in A-133 reports are useful to NSF in planning site visits and other post-award monitoring. Because of the importance of A-133 reports to this oversight process, the OIG reviews all reports for which NSF is the cognizant or oversight agency for audit, and provides guidance to awardees and auditors for the improvement of audit quality in future reports. In addition, OIG returns reports that are deemed inadequate to the awardees to work with the audit firms to take corrective action.

We reviewed 102 audit reports for which NSF was the cognizant or oversight agency for audit,[4] and found that 46 fully met federal reporting requirements.

Fifty six reports reviewed had timeliness and quality issues. Eighteen reports were submitted after the submission deadline. Audit quality issues identified included 21 reports in which 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 or did not adequately describe the significant accounting policies used to prepare the schedule. In addition, there were 20 reviews that contained quality issues which had been previously identified for the same awardees and auditors.

3 September 2009 Semiannual Report, pp. 16-17.

4 The "cognizant or oversight agency for audit" is defined as the federal agency which provided the largest amount of direct funding to an awardee.

We contacted the auditors and awardees, as appropriate, for explanations of each of the potential errors. In most cases, the auditors and awardees either provided adequate explanations and/or additional information to demonstrate compliance with federal reporting requirements, or the error did not materially affect the results of the audit. However, we rejected four reports due to substantial 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.

Efforts in Response to National Single Audit Sampling Project, Recovery Act, and Improper Payments Improvement Act

We previously reported ongoing efforts to improve the quality and oversight of single audits in response to the recommendations of the National Single Audit Sampling Project and on our participation in OMB workgroups.[5]

We continue to work with OMB to revise the Council of Inspectors General on Integrity and Efficiency standards for conducting quality control reviews and desk reviews. We are also working with OMB to address the impact of ARRA and the Improper Payments Improvement Act on single audits.

Financial Statement Audit Reports

Establishing and maintaining sound financial management is a top priority for the federal government because agencies need accurate and timely information to make decisions about budget, policy, and operations. The Chief Financial Officer's Act requires agencies to prepare annual financial statements, which must be audited by an independent entity.

NSF Receives Unqualified Opinion on Financial Statements For the Twelfth Consecutive Year, But Monitoring of Cost Reimbursement Contracts Needs to be Strengthened

Under a contract with the OIG, Clifton Gunderson LLP conducted an audit of NSF's FY 2009 financial statements. Clifton Gunderson issued an unqualified opinion on the financial statements; however, the auditors reported a significant deficiency in contract monitoring on cost reimbursement contracts. As noted earlier, NSF obligated $361 million for cost reimbursement contracts in FY 2009, of which $270 million in contracts allowed advance payments for three contractors, with the majority going to one contractor. Cost reimbursement contracts are high-risk because of the potential for cost escalation. Advanced payment contracts are considered to be a higher risk because contractors are paid before the work has begun. Without improvements in these areas, NSF cannot ensure the reasonableness and accuracy of costs paid on these contracts.

5 Previously reported in September 2007 Semiannual Report, p. 17, and September 2009 Semiannual Report, p. 18.

Specifically, the auditors noted issues in the following three areas:

- Delays in securing Incurred Cost Audits for NSF's largest and riskiest contracts, and not properly monitoring the receipt, audit, and approval of Cost Accounting Standards (CAS) disclosure statements.
- Inadequate and ineffective contract oversight procedures, including the evaluation of contractor's accounting systems prior to awarding cost reimbursement type contracts.
- NSF's Contracting Manual requires additional procedures for cost reimbursement contract administration.

It is essential for NSF to improve in these areas in order to ensure the reasonableness and accuracy of costs paid on contracts, particularly on contracts considered to be high-risk.

The auditors made 10 recommendations for NSF to incorporate more comprehensive risk-based policies and procedures for contract monitoring and focus cost surveillance on cost reimbursement contracts. We agreed with NSF's proposed corrective actions for nine of the recommendations and are awaiting additional information on the remaining recommendation to determine whether it can be resolved.

The auditors also issued a Management Letter in conjunction with the financial statement audit report. The purpose of this document is to communicate findings that are not included in the audit report but are important to ensuring a sound overall internal control structure and require management's attention. The FY 2009 Management Letter identified seven findings, some of which incorporated elements of prior years' findings related to NSF's operations and financial reporting controls. The Management Letter reported continuing improvements needed to NSF's policies for awarding and administering grants. The auditors repeated their prior recommendation that NSF revise its Site Visit Review Guide for assessing institutions with high risk awards to provide specific guidance for reviewers to document their review steps and the results. The auditors made several other recommendations including that NSF review supporting source documentation before approving payments to problem institutions placed on special payments, and that NSF monitor audit resolution activity to ensure that the deadlines are met.

NSF agreed with twelve of the fourteen recommendations in the Management Letter. For example, NSF plans to implement a revised process to incorporate a limited review of actual costs for grantees on special payment plans and to update its contracting manual and other guidance. The FY 2010 financial statement audit will evaluate NSF's actions in response to the recommendations.

Annual Evaluation of NSF's Information Security Program Completed

The Federal Information Security Management Act (FISMA) requires an annual independent evaluation of an agency's information security program. Under a contract with the OIG, Clifton Gunderson LLP conducted this independent evaluation for FY 2009. Clifton Gunderson reported that NSF has an established information security program and has been proactive in reviewing

security controls and in identifying areas to strengthen its controls; however, some improvements are needed. NSF concurred with the report and has made progress in addressing the findings. The agency provided a corrective action plan, which will be reviewed as part of the FY 2010 independent evaluation.

Investigations

Administrative Investigations

Administrative investigations involve allegations of wrongdoing that do not constitute violations of NSF's research misconduct regulation or federal civil or criminal statutes. During the past six months, we conducted several administrative investigations. Two investigations resulted in institutions returning significant amounts of grant funds to NSF. Other administrative cases involved possible weaknesses in agency hiring practices and potential employee misconduct.

University Returns $770,000 in Award Money to NSF

A Michigan university returned $770,000 to NSF after investigating allegations of research misconduct involving plagiarism in an NSF proposal and in course materials created under the resulting NSF award. The university found that a co-PI's actions pertaining to the course materials did not constitute research misconduct, and the university was unable to determine whether the PI or the co-Pi was responsible for the plagiarized material in the NSF proposal. The university required the PI to attend an ethics seminar and to submit proposals for university supervision for five years; since the co-PI had moved to another institution, the university did not take action against her. We agreed with the university's conclusions and sent letters to the PI and co-PI emphasizing the importance of appropriate citation.

During the course of the investigation, the university determined that it was unable to complete the NSF project. Therefore, it terminated the award, making $150,000 of unexpended funds available to NSF, and it returned $620,000 of previously expended grant funds to NSF.

$380,000 in CAREER Award Funds Returned to NSF

We received an allegation that the PI on a $400,000 CAREER award to a Massachusetts university left her position to pursue a career in the arts, but the institution drew down nearly $200,000 on the NSF award after her departure. NSF sent more than 21 overdue project report reminders, and neither the institution nor the PI responded.

The institution acknowledged that it had drawn down funds on the NSF award after the PI left, explaining that it used the funds to support graduate student projects. The institution also acknowledged that it had not notified NSF of these changes, as required. The primary purpose of NSF CAREER awards is to support the development of a PI's career, not to support graduate student work.

HIGHLIGHTS

The university terminated the award, making $200,000 of unexpended funds available to NSF, and it returned $180,000 of previously expended grant funds to NSF.

NSF Implements Recommendations to Properly Detail Employee and to Improve Maintenance of Performance Reviews

Based on an allegation we received, we reviewed a Senior Executive Service (SES) vacancy posting and concluded that it adhered to relevant statutes, regulations, and policies, and that no conflict of interests existed with respect to the temporary incumbent's involvement in the posting at issue. However, in conducting our review, we found that the incumbent had been placed in the SES position for two years without formally being detailed to the position, as required by federal regulation. We also discovered that NSF employees' signed performance evaluations are not always provided to the Division of Human Resource Management (HRM), as required. NSF implemented our recommendations to properly detail the individual and to ensure that performance evaluations are provided to HRM and maintained as required.

NSF Addresses Three Employee Misconduct Matters

An employee was counseled on the importance of properly accounting for his official time after we found that, for three months, he had been including exercise time as part of his eight-hour day. Another employee received an official reprimand from NSF and repaid $700 to the agency after she failed to account properly for hours worked.[6] In the third matter, NSF management orally reprimanded an employee who used franked envelopes for personal use.

Civil and Criminal Investigations

We investigate violations of federal civil and criminal statutes by applicants for and recipients of NSF funds, as well as NSF employees and contractors. When we find substantial evidence of wrongdoing, we refer cases to the Department of Justice for prosecution and recommend administrative action by NSF in appropriate circumstances.

During this reporting period, our investigations yielded significant results including a university returning $500,000 to NSF after a PI used grant funds improperly and a university returning $105,000 to NSF after charging unallowable costs to NSF grants.

Contractor Improperly Charged $14.2 Million in Indirect Costs to NSF

The OIG's Office of Audit and the Defense Contract Audit Agency determined that a contractor in Colorado overcharged NSF $14.2 million over five years because it improperly reclassified allocations of indirect costs from its corporate parent headquarters as direct costs in the contract. Upon referral from the Office of Audit, we initiated an investigation.

6 Previously discussed in September 2009 Semiannual Report, p.27.

During the bidding process, the contractor proposed a ceiling on its indirect rate to gain an advantage over its competitors. Shortly after commencing performance of the contract, changes at the contractor's corporate parent headquarters increased the general corporate indirect costs that were allocated to the contractor. The contractor could not obtain reimbursement from NSF for these increased charges due to the ceiling on the indirect-cost rate that it had agreed to during the bidding process. Instead of renegotiating the indirect rate ceiling with NSF when faced with mounting losses, the contractor added certain corporate parent indirect costs to other indirect costs that had been legitimately proposed for direct charge to the contract in its original proposal.

The contractor advised NSF of its plan of action, using language that blurred the distinction between the corporate parent's indirect costs and the other costs that had originally been proposed for direct charge. The contractor then implemented the plan based on an ambiguous oral statement by an NSF staff member that the contractor interpreted as constituting approval—even though the statement also indicated that an audit would be requested. The audit concluded that the contractor's selective reclassification of the allocated corporate parent indirect costs violated cost accounting standards.

We referred evidence of potential false claims to the U.S. Attorney's Office for the Eastern District of Virginia for action under the civil False Claims Act. The U.S. Attorney's Office declined to move forward with the civil suit and returned the matter to our office to allow NSF to seek an administrative recovery of the overcharges. We referred this matter to NSF with our recommendation that the agency administratively recover the questioned reclassified corporate allocations. NSF is evaluating its course of action.

University Agrees to Return $500,000 and Enters into a Compliance Plan After Submitting False Claims and Certifications to NSF

We investigated allegations of fraud, abuse, and mismanagement of NSF funds under a cooperative agreement at a Georgia university. We determined that the PI used NSF funds for entertainment expenditures, such as taking students bowling and on trips to amusement parks, and charged expenses related to his other projects to the NSF cooperative agreement. We also determined that the university failed to meet its cost sharing obligations and submitted false annual cost sharing certifications to NSF.

We referred the matter to the U.S. Attorney's Office for the Middle District of Georgia for action under the civil False Claims Act. A settlement agreement between the United States and the university required restitution in the amount of $500,000 and a five-year compliance agreement, which we will monitor for its duration.

South Pole Hacker Sentenced

We previously reported that an individual in Romania hacked into NSF's South Pole Station computer network and attempted to extort money from NSF by threatening to sell the information he obtained from the network to "interested parties."[7] A joint investigation with the FBI, Romanian authorities, and the OIG

7 September 2003 Semiannual Report, p. 32.

resulted in the hacker's arrest and confession in 2003, and in this reporting period he was found guilty and sentenced by a Romanian court to two years in jail. The sentence was suspended for four years; however, he will have to serve the two-year sentence if he commits another crime in the next four years.

University Returns $105,000 to NSF and Administrator is Recommended for Debarment

We identified $38,000 of unallowable costs charged to awards to two PIs at an Ohio university. The mischarges included the cost of personal travel for a PI's family. To assist us in determining whether the issues we identified were systemic or anomalous, the university agreed to conduct audits of two additional awards and identified an additional $27,000 of unallowable and unsupported charges made to those awards. The university returned to NSF a total of $105,000 in unallowable and unsupported charges and associated indirect costs, and overhauled its administrative policies and practices to ensure compliance with federal requirements.

Unrelated to the mischarges to NSF awards, the university determined that a department administrator (who was also responsible for overseeing one of the NSF PI's awards) had embezzled $22,000. She pled guilty to aggravated theft in state court, and we recommended that NSF debar her for three years. NSF has issued a Notice of Proposed Debarment to the former department administrator, and its final decision is pending.

Debarments Recommended for Wrongdoing by Three Awardee Employees

- The president of a Texas university used $287,000 of university funds (not NSF or other federal funds) for home improvements, landscaping, and other personal purchases. She pled no contest and was ordered to pay $127,000 in restitution and serve ten years of community supervision (a form of probation). Because the former president is currently affiliated with another university that receives significant NSF and other federal funds, in a faculty position in accounting, and because the former president's crimes reflected financial dishonesty and a lack of present responsibility, we recommended that NSF debar her for three years. NSF's decision is pending.

- An accounts payable clerk at a Wisconsin college pled guilty to a felony theft charge in a state court and was ordered to pay $22,000 of restitution ($1,700 from non-NSF federal awards). We recommended that NSF debar the former clerk for three years, and NSF's decision is pending.

- An administrator at a North Carolina university used a procurement card four times to charge personal expenses totaling $525 personal expenses to an NSF award. The university terminated the employee and restored the improper charges to the grant. We recommended that NSF debar the former employee for one year, and NSF issued a notice of proposed debarment. NSF's final decision is pending.

NSF Acts on Debarment Recommendations

In recent Semiannual Reports we reported several investigations that resulted in recommendations to NSF that it consider debarring the subjects based on the outcomes of our investigations. During this reporting period, based on our recommendations, NSF debarred each of the following individuals for three years:

- The former director of a university medical research center who improperly charged $282,000 to an NSF award and $678,000 to other federal awards.[8]
- A former professor who violated or disregarded various federal award administration requirements, violated university policies regarding conflicts of interests and outside compensation, and repeatedly misled both NSF and university investigations into the matter.[9]
- A former research employee based on her conviction for theft of funds from federal programs.[10]
- A former university employee who was convicted of embezzlement for her use of her purchase card for personal charges totaling $24,000, half of which was charged to an NSF award.[11]

Research Misconduct Investigations

Research misconduct damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in government-funded research. For these reasons, pursuing allegations of research misconduct by NSF-funded researchers continues to be a focus of our investigative work. In recent years, we have seen a significant rise in the number of substantive allegations of research misconduct associated with NSF proposals and awards. It is imperative to the integrity of research funded with taxpayer dollars that NSF-funded researchers carry out their projects with the highest ethical standards.

8 September 2009 Semiannual Report, p. 30.
9 March 2009 Semiannual Report, p. 34.
10 March 2009 Semiannual Report, p. 30; September 2009 Semiannual Report, p. 30.
11 September 2009 Semiannual Report, p. 30.

NSF's Definition of Research Misconduct[12]:

Research misconduct means fabrication, falsification, or plagiarism in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF.

1. Fabrication means making up data or results and recording or reporting them.

2. Falsification means manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

3. Plagiarism means the appropriation of another person's ideas, processes, results or words without giving appropriate credit.

4. Research, for purposes of paragraph (a) of this section, includes proposals submitted to NSF in all fields of science, engineering, mathematics, and education and results from such proposals.

Research misconduct does not include honest error or differences of opinion.

During this reporting period, we referred seven cases to NSF which are summarized below. In the first two cases, NSF made a finding and took actions consistent with our recommendations. NSF's decisions are pending in the other five cases.

PI Plagiarized in NSF-Supported Paper

A Florida university's investigation found that a PI's NSF-supported paper contained plagiarism. The PI argued to the university that his actions did not meet the definition of plagiarism because his community standards were such that only models, analyses, and results—but not text—were considered intellectual property. The university disagreed; however, it did not make a finding of research misconduct primarily because it concluded that the PI intended to cite the original sources but failed to do so because he was in a hurry to submit the paper, and it found no pattern of plagiarism.

We found the university's conclusions regarding the PI's intent to be unpersuasive, so we conducted additional investigation. We examined the paper and found twice as much plagiarism as the university identified. Further, we examined several of the PI's other proposals and found additional plagiarism, constituting a pattern of plagiarism.

Based our recommendations, NSF: sent the PI a letter of reprimand notifying him that NSF made a finding of research misconduct; required the PI to take a course on proper citation practices; and required the PI to certify for eleven months that all his submissions to NSF are free from plagiarism.

12 45 C.F.R. § 689.1.

Assessment of Pattern in Research Misconduct Cases

The NSF research misconduct (RM) regulation states that, in deciding appropriate final actions in an RM case, NSF officials "should consider whether the actions were an isolated event or part of a pattern."[13] If our investigation of an RM allegation confirms that falsification, fabrication, or plagiarism occurred, we examine a representative sample of other research work by the subject, including proposals submitted to other funding agencies, internal proposals, lab notebooks and other research publications and reports, to look for other instances of falsification, fabrication, and/or plagiarism, which would establish a pattern.

Evidence of a pattern of RM is relevant for two purposes. First, it can negate any suggestion by the subject that the RM act was inadvertent, which is necessary to establish the level of intent to make an RM finding. Second, it can inform the adjudicator about the seriousness of the subject's misconduct.

PI Plagiarizes Text in Four SBIR Proposals

We concluded that four Small Business Innovation Research (SBIR) proposals submitted to NSF by a scientist working at a small Florida company contained plagiarized text. We did not believe that such a small company could conduct an impartial investigation, so we conducted our own investigation.

During our investigation, the PI stated that she had used some material in her proposals that was prepared by a marketing specialist and some material that was from commercial sources. She stated that she did not believe she needed to quote such material.

We determined that the PI plagiarized, and that factors such as her education, publications, and work experience demonstrated that she was aware of the appropriate scholarly standards. Therefore, we concluded that she acted knowingly when she copied material into her NSF proposals.

Based on our recommendations, NSF sent the PI a letter of reprimand informing her that NSF has made a finding of research misconduct against her; required her to certify for one year that proposals or reports she submits to NSF do not contain plagiarized, fabricated, or falsified material; and directed the PI to certify to our office that she completed a course in research ethics within one year of the final disposition of the case.

Pattern of Plagiarism in Researcher's Proposals

We referred an allegation to a Virginia university that a PI submitted a proposal to NSF that contained plagiarized text. The PI denied plagiarizing, asserting he did not understand NSF's citation policy. However, the university substantiated the allegation and found additional plagiarism in that proposal as well as in several of the PI's other proposals, which constituted a pattern of plagiarism.

13 45 C.F.R. § 689.3(b)(3).

In contrast, the committee determined that the PI appropriately cited his sources in manuscripts he submitted to scientific journals, thus demonstrating he was aware of appropriate citation practices. Nonetheless, the PI—who is a faculty member, a researcher, a director of an NSF-funded center, and a former editor-in-chief of a scientific publication— contended that he was not familiar with NSF's standards and expectations for proposals. The university did not find his claim of ignorance to be plausible.

We concurred with the university's conclusions and its finding of research misconduct. We recommended that NSF: send the PI a letter of reprimand notifying him NSF is making a finding of research misconduct; require the PI to take a course on responsible research practices with emphasis on proper citation and attribution practices of proposals; for the next three years, require the PI to provide with every submission to NSF a certification that the submitted work is either entirely his own writing or is properly cited; and, for three years, require the PI to provide an assurance by the university's research integrity officer that, to the best of his or her knowledge, the PI's work is entirely his own writing or is properly cited. NSF's decision is pending.

PI Breached the Confidentiality of NSF's Merit Review Process and Plagiarized Text

We determined that a PI who was a senior professor at a Texas university submitted three NSF proposals, two of which were funded, containing text copied from multiple source documents. One source document was an NSF proposal the PI received for merit review.

The university determined that the PI violated NSF proposal review rules, failed to put copied text into quotations, and failed to provide citations for additional materials copied from websites. However, the committee stated that the community standards for referencing websites are rapidly changing and therefore the PI's lack of citations to websites were not inconsistent with community standards. The Committee concluded that, although the PI should face some disciplinary action, the violations did not warrant a finding of research misconduct.

We disagreed with the university's conclusion that the requirement for referencing websites is different than references to other written material. Attribution to the work of authors is required regardless of the source. Distinguishing and attributing copied material serves two essential objectives: giving credit to the source authors, and also informing the reader that the author is not taking credit for the distinguished material.

We determined that the PI had breached the confidentiality of merit review and plagiarized text into three NSF proposals. We recommended that NSF: make a finding of research misconduct against the PI; send the PI a letter of reprimand; require the PI's employer to submit assurances for three years; prohibit the PI from serving as a reviewer of NSF proposals for five years; and require the PI to provide certification for completion of a course in ethics training. NSF's decision is pending.

PI Blames Students for Plagiarism

We determined that a PI at an Alabama university plagiarized a substantial amount of text from someone else's proposal into his own. During our inquiry, the PI told us he received a copy of an awarded proposal from NSF and gave it to more than eighty of his students to perform a literature review—and he did not assess their work before incorporating it into the proposal he submitted to NSF. The PI also told us there was no unattributed copied text in any of his other proposals, but we found copied text in two other proposals. We referred the matter to his university for investigation. The university concluded the PI was solely responsible for the plagiarism in his proposal; however, the PI left the university before the investigation was completed.

We concurred with the university's conclusions. We recommended that NSF: send the PI a letter of reprimand notifying him NSF is making a finding of research misconduct; require the PI and his students to take a course on responsible research practices with emphasis on proper citation and attribution practices; for the next two years, require the PI to provide a certification with every submission to NSF that the submitted work is either entirely his own writing or is properly cited; for the next two years, require the PI to ensure his employer submits assurances that the PI's submitted work is either entirely his own writing or is properly cited. NSF's decision is pending.

PI Plagiarizes from Online Sources

We determined that a PI from a Texas university submitted a proposal to NSF containing text plagiarized primarily from online sources. The PI admitted that he copied the material, but explained he was rushing to meet a deadline. We referred the matter to the university for investigation. The university concluded that the PI recklessly committed plagiarism and required the PI to: not submit external grant proposals for one year; recuse himself from acting as a merit reviewer for federal grants for two years; not be eligible for a merit pay increase for one year; and complete an ethics course within three months.

We concurred with the university assessment, but concluded that the PI plagiarized knowingly: plagiarizing to meet a deadline does not render the perpetrator less aware of his actions. We recommended that NSF send a letter to the PI informing him that NSF made a finding of research misconduct; require the PI to certify for two years that proposals he submits to NSF contain no plagiarized, falsified, or fabricated material; and direct the PI to complete a research ethics course within one year. NSF's decision is pending.

PI Plagiarizes Text in NSF Proposal

We concluded that a PI from a Louisiana university submitted an NSF proposal that contained plagiarized text, some of which was taken from a funded NSF proposal. The PI admitted that she had plagiarized, but she argued that, since the proposal had been withdrawn and was not funded, there could be no research misconduct. The university found that the PI committed plagiarism, citing, among other reasons, that the PI had signed a university form prior to submission of the proposal that clearly stated that the PI certifies the proposal

is free of plagiarism. The university's actions included: prohibiting her from submitting proposals, papers for publication, or papers for presentations for one year unless they were reviewed and approved by administrators; making her ineligible for merit salary increase for one year; requiring her to take an ethics class; barring her from serving on one student program for one year and another for two years.

We agreed with the university's conclusions and recommended that NSF: make a finding of research misconduct; send the PI a letter of reprimand; require her to certify for one year that proposals or reports she submits to NSF do not contain plagiarized, fabricated, or falsified material; provide documentation that she completed the two-day ethics course; and bar the subject from serving as a merit reviewer for one year. NSF's decision is pending.

Actions by NSF Management on Previously Reported Research Misconduct Investigations

NSF has taken administrative action to address our recommendations on five research misconduct cases reported in our March and September 2009 reports. In each case, NSF made a finding of research misconduct and issued a letter of reprimand. NSF also took additional significant actions in response to our recommendations as summarized below.

- NSF debarred for five years a PI at an east coast university who extensively plagiarized into two NSF proposals, and also barred the PI from serving as a merit reviewer for five years.[14]

- NSF proposed debarring for three years a doctoral student at a Pennsylvania university who demonstrated a pattern of purposeful data falsification.[15] NSF also required certification of the retraction of the published work and her completion of ethics training; for three years following the debarment period required the submission of certifications and assurances; and banned her from serving as a reviewer of NSF proposals.

- NSF's Deputy Director debarred for two years a research professor who fabricated and falsified data in his NSF proposal, and also required the subject and his employer to provide certifications and assurances for three years after debarment ends, prohibited the subject from serving as a reviewer of NSF proposals for three years, and required the subject to complete a course in ethics training.[16] The subject appealed all actions, which were upheld by the Director.

14 March 2009 Semiannual Report, pp. 45-46.
15 September 2009 Semiannual Report, pp. 21-23.
16 September 2009 Semiannual Report, p. 23.

- NSF required certifications for one year from a doctoral student at a Nevada university who plagiarized in a proposal he submitted to NSF requesting support to complete his dissertation.[17] NSF also required the student to send to OIG the materials he developed for the university-imposed presentation on research ethics; and required certification that he completed a research ethics course.

- NSF required certifications from a PI at a Wyoming university who plagiarized into three separate proposals he submitted to NSF.[18] NSF also required the PI to send our office all materials developed for the university-imposed research ethics presentation, and required certification that he completed a course in research ethics.

Reviews to Improve NSF Processes

When we conduct investigations, we look for problems that could be avoided prospectively if NSF modified its internal processes or external requirements. During this reporting period we completed two reviews that arose from investigations, resulting in recommendations involving possible NSF staff conflicts of interests.

Using Electronic Means to Handle Conflict of Interests Recusals by NSF Staff

NSF staff avoid conflicts of interests (COIs) by recusing themselves from handling proposals and awards with which they have an actual or possible appearance of a conflict because they have an affiliation or relationship with an institution, person, or project. Traditionally, each NSF program division handled COI recusals manually, with each staff member being responsible for informing the division's conflicts official about proposals/awards, individuals, and institutions from which the staff member should be recused.

NSF's electronic proposal system includes a conflict of interests module which staff can use to declare and record any institutional, individual, or proposal conflicts. We reviewed the use of this module by NSF's divisions and concluded that it has several advantages over manually checking for conflicts of interests. Therefore, we recommended that NSF require staff to use the COI module in the electronic proposal system. We also recommended that NSF ensure that all relevant staff receive training in the use of the module and make other technical improvements. NSF's decision is pending.

Recommendations to Improve NSF's Hiring Process

We received allegations that a temporary NSF employee, hired through the Intergovernmental Personnel Act (IPA), inappropriately participated in the hiring of a division director who would be directly involved in determining significant

17 September 2009 Semiannual Report, p. 23.
18 September 2009 Semiannual Report, p. 24.

funding for the IPA's home institution. Based on our review, we made two recommendations to NSF to strengthen the integrity of its hiring process. Our investigation into the alleged conflict of interests is ongoing.

The IPA had sought advice from NSF's Designated Agency Ethics Official (DAEO) on his involvement in an earlier hiring effort for a program position related to his home institution, and the DAEO advised him not to participate. When the hiring process began for the new director of the division that included that same program—raising, in our view, the same conflicts issues—the IPA did not directly seek new or clarifying advice from the DAEO for the new position. Late in the selection process, concerns came to the DAEO's attention and she advised the IPA not to participate in the selection process. NSF's Division of Human Resource Management was not notified of the DAEO's advice and therefore did not recuse the IPA from his role as selecting official or other aspects of the selection process.

Since many NSF supervisory program executives are IPAs, the issue that arose could recur. In response to our recommendations, NSF concluded that the new division director will handle any issues on which the IPA may be conflicted without involvement of the IPA. NSF agreed to revise its Manual 14, "Personnel Manual," to explicitly require IPAs (including Assistant Directors (ADs) and Division Directors) with selection authority to seek advice from the DAEO regarding participation in the hiring process. HRM will consider implementing mechanisms to ensure that hiring actions are conducted consistent with the DAEO's advice. In addition, the DAEO agreed to provide such guidance to ADs in writing; this latter step is consistent with recent OGE guidance to DAEOs on conflict of interests waivers.

OIG Management Activities

OUTREACH

Outreach continues to be a valuable tool in our efforts to prevent and detect fraud, waste, and abuse and to provide insight and recommendations to NSF and its awardees. During the past six months, we worked proactively with the National Science Board, NSF management, major research institutions, colleges and universities, national and international research organizations, and others. For example, our office has briefed the Board on audit issues including contract administration issues identified in the financial statement audit, as well as issues disclosed through our investigative work.

While continuing to encourage the research community to embrace compliance-based practices and programs, we have broadened our message to address current matters of importance to NSF and to the community. Specifically, we incorporated information about the Recovery Act, its whistleblower protections, and proactive OIG activities relating to it, into outreach events. We also highlighted NSF's Responsible Conduct of Research requirements.

As a result of our extensive experience in investigating research misconduct, our office receives many requests from universities and others in the research community to provide training on preventing, detecting and investigating research misconduct. During the past six months, our staff has made a number of presentations focused on research misconduct. For example, the Inspector General gave the keynote address at the annual meeting of the Biological Graduate Student Association at the University of Puerto Rico, speaking on plagiarism and responsible research practices. The Assistant Inspector for Investigations gave a presentation to the Society of Research Administrators International (SRAI) on NSF's expectations for awardees' implementation of Responsible Conduct of Research requirements. OIG staff also gave presentations on conducting research misconduct investigations to SRAI's annual meeting, and to the SRAI North Carolina chapter.

In addition, the Assistant Inspector General for Investigations participated in a panel discussion during the annual meeting of the Committee on Science, Engineering, and Public Policy (a joint entity of the National Academy of Science, the National Academy of Engineering, and the Institute of Medicine) regarding revisions of the Committee's report on responsible science. OIG staff made several presentations at area universities covering fraud detection and prevention, research misconduct, and compliance-related

matters. Also, staff made a number of presentations to groups that were involved in either applying for or administering NSF awards, performing supported research, or conducting university-level inquiries and investigations into research misconduct allegations.

In addition to outreach activities to heighten awareness of research misconduct, OIG staff participated in a number of efforts related to grant fraud. With the NASA Deputy IG, the Inspector General is leading a working group comprised of representatives of the Small Business Administration OIG, and the OIGs of the eleven federal agencies that fund the Small Business Innovation Research (SBIR) program to develop best practices to detect and prevent fraud in this program. In 1994, as a result of problems we had noted in our investigations of SBIR recipients, we made a number of recommendations to NSF that focused on strengthening SBIR disclosures and certifications. As a result of those recommendations, NSF requires proposers and awardees to make enhanced disclosures and certifications at critical points throughout the lifecycle of each SBIR award. This process helps prevent fraud in the first place and enhances our ability to prosecute it when it does occur.

In addition to our work in the SBIR program, OIG staff are participating in the National Procurement Fraud Working Group. Staff also provided grant fraud training to a regional workshop of more than 300 federal auditors and investigators and hosted its sixth Grant Fraud Investigations Training Program for more than 140 investigators, attorneys, and auditors from 36 federal agencies.

Our audit staff has continued to be involved in extensive outreach efforts and to participate in several projects related to ARRA funds at the request of the Recovery Accountability and Transparency Board. In addition, our office provided ARRA training at the National Council of University Research Administrators conference and discussed ARRA issues at a meeting of the Council on Government Relations. We have also worked with OMB in efforts to update A-133 audit procedures to include testing for compliance with ARRA requirements, revising A-133 audits to reduce the potential for improper payments, and updating OMB's guidance for conducting quality assurance of A-133 audits. These audits are an important tool for providing timely information on awardees' internal controls and expenditure of ARRA funds. Finally, we continue to participate in the Single Audit Roundtable with other Offices of Inspector General as well as state agencies, the American Institute of Certified Public Accountants, and others.

Office of Audit Conducts Peer Review

Audit organizations that perform audits and attestation engagements in accordance with the Controller General's Government Audits Standards (GAS) must have external peer reviews every three years by independent reviewers. During this reporting period the NSF OIG conducted a peer review of the Special Inspector General for Iraq Reconstruction (SIGIR) Office of Audit for the year ended July 31, 2009. Peer reviews focus on quality control, which includes organizational structure and policies and procedures that help ensure compliance with GAS. A copy of the NSF OIG peer review report is available on the SIGIR website.[19]

19 *http://www.sigir.mil/audits/PeerReview.aspx*. Note: The NSF OIG's last peer review, for the year ended September 30, 2008, by the National Credit Administration Inspector General, was reported in the March 2009 Semiannual Report to Congress, p. 13, and is available on the NSF OIG website at: *http://www.nsf.gov/oig/2009AuditPeerReview.pdf*.

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		$3,053,497
B.	Recommendations that were issued during the reporting period		$0
C.	Adjustments related to prior recommendations		$0
Subtotal of A+B+C			$3,053,497
D.	For which a management decision was made during the reporting period		$1,900,000
	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[1]	$1,900,000
E.	For which no management decision had been made by the end of the reporting period		$1,153,497
For which no management decision was made within 6 months of issuance			$1,153,497

1 Although NSF did not agree with the finding of $1.9 million of funds put to better use in OIG audit report No. 06-2011, additional funds were made available for grants as a result of NSF's implementing the report recommendations that NSF comply with OMB requirement for calculating grantees' indirect cost rates.

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	22	$62,384,713	$2,281,145
B.	That were issued during the reporting period[2]	19	$1,228,520	$382,137
C.	Adjustment related to prior recommendations			
Subtotal of A+B+C			$63,613,233	$2,663,282
D.	For which a management decision was made during the reporting period	8	$843,499	$109,623
	i) dollar value of disallowed costs ii) dollar value of costs not disallowed	N/A N/A	$200,742 $642,757	N/A N/A
E.	For which no management decision had been made by the end of the reporting period	33	$62,769,734	$2,553,659
For which no management decision was made within 6 months of issuance		15	$61,891,022	$2,171,522

2 Of the 19 audit reports with questioned costs issued during this reporting period, 15 were Single Audit (A-133) audit reports, with a total of $1,113,470 questioned costs. Of those 15, seven A-133 reports found a total of $382,137 of unsupported costs.

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:	2	$11,493,051	$136,263	$510,718
B.	Reports with monetary findings that were issued during the reporting period:	0	$0	$0	$0
C.	Adjustments related to prior recommendations	0	$0	$0	$0
Total of reports with cost sharing findings (A+B+C)			$11,493,051	$136,263	$510,718
D.	For which a management decision was made during the reporting period:	0	$0	$0	$0
	1. Dollar value of cost-sharing shortfall that grantee agreed to provide	0	$0	$0	$0
	2. Dollar value of cost-sharing shortfall that management waived	0	$0	$0	$0
E.	Reports with monetary findings for which no management decision has been made by the end of the reporting period	2	$11,493,051	$136,263	$510,718

Status of Recommendations that Involve Internal NSF Management Operations

Open Recommendations (as of 09/30/2009)	
Recommendations Open at the Beginning of the Reporting Period	49
New Recommendations Made During Reporting Period	34
Total Recommendations to be Addressed	83
Management Resolution of Recommendations[3]	
Awaiting Resolution	24
Resolved Consistent With OIG Recommendations	59
Management Decision That No Action is Required	0
Final Action on OIG Recommendations[4]	0
Final Action Completed	31
Recommendations Open at End of Period	52

Aging of Open Recommendations

Awaiting Management Resolution:	
0 through 6 months	21
7 through 12 months	0
More than 12 months	3
Awaiting Final Action After Resolution	
0 through 6 months	13
7 through 12 months	0
More than 12 months	15

3 "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.
4 "Final Action" occurs when management has completed all actions it agreed to in the corrective action plan.

NSF and CPA Performed Reviews

Report Number	Subject	Questioned Costs	Unsupported Costs	Better Use of Funds	Cost Sharing At-Risk
10-1-001	SUNY at Stony Brook Effort Reporting	$23,656	$0	$0	$0
10-1-002	University of Wisconsin-Madison Effort Reporting	$2,941	$0	$0	$0
10-1-003	University of Nevada-Reno Effort Reporting	$54,154	**$0**	$0	$0
10-1-004	ANS Performance Internal Controls Academy of Natural Sciences	$0	$0	$0	$0
10-1-005	Washington University in St. Louis Effort Reporting	$0	$0	$0	$0
10-1-006	University of Missouri-Columbia	$0	$0	$0	$0
10-1-007	NEES Network for Earthquake Engineering Simulation	$0	$0	$0	$0
10-1-008	University of Delaware Effort Reporting	$34,299	$0	$0	$0
10-1-009	Follow up California Institute of Technology Effort Reporting	$0	$0	$0	$0
10-2-001	ARRA – Data Quality	$0	$0	$0	$0
10-2-002	NSF's FY2009 Financial Statement Audit	$0	$0	$0	$0
10-2-003	NSF FY2009 Special Purpose Financial Statement	$0	$0	$0	$0
10-2-004	FISMA 2009 Independent Evaluation Report	$0	$0	$0	$0
10-2-005	FY2009 FISMA Independent Evaluation Summary	$0	$0	$0	$0
10-2-006	Audit Resolution	$0	$0	$0	$0
10-2-007	NSF's FY2009 Management Letter	$0	$0	$0	$0
10-2-008	Government in the Sunshine Act	$0	$0	$0	$0
10-2-009	Workforce Management – Rotating Director Model	$0	$0	$0	$0
10-6-001	Alert Memo NSF Contract Administration Issue	$0	$0	$0	$0
10-6-002	Alert Memo COL (FKA JOI) NSF Administration of CAS at COL	$0	$0	$0	$0
10-6-003	SIGIR Peer Review	$0	$0	$0	$0
	Total:	**$115,050**	**$0**	**$0**	**$0**

NSF-Cognizant Reports

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
10-4-001	9-08 Forth Worth Museum of Science & History – TX	$0	$0	$0
10-4-002	9-08 Northern California Public Broadcasting	$0	$0	$0
10-4-003	8-08 Association of American Geographers – DC	$0	$0	$0
10-4-004	12-08 Carnegie Institute – PA	$24,000	$0	$0
10-4-005	6-08 CORD, Inc. – TX	$0	$0	$0
10-4-006	12-08 International Computer Science Institute – CA	$0	$0	$0
10-4-007	9-08 Merck Institute for Science Education – NJ	$0	$0	$0
10-4-008	9-08 NEES Consortium, Inc. – CA	$0	$0	$0
10-4-009	9-08 TMT Observatory Corporation – CA	$0	$0	$0
10-4-010	12-08 TERC Technical Education Research Centers, Inc. – MA	$0	$0	$0
10-4-011	6-08 SoundVision Productions – CA	$0	$0	$0
10-4-012	8-08 WGBH Educational Foundation – MA	$791	$776	$0
10-4-013	12-08 BIOS Bermuda Institute for Ocean Sciences – NY	$0	$0	$0
10-4-014	9-08 Kentucky Science and Technology Corporation	$0	$0	$0
10-4-015	12-08 Monterey Bay Aquarium Research Institute – CA	$0	$0	$0
10-4-016	9-08 AURA Association of Universities for Research in Astronomy, Inc. – DC	$0	$0	$0
10-4-017	9-08 IMI IODP Management International, Inc. – DC	$0	$0	$0
10-4-018	12-08 AIM American Institute of Mathematics – CA	$0	$0	$0
10-4-019	12-08 Mathematical Association of America – DC	$0	$0	$0
10-4-020	9-08 ARCUS Arctic Research Consortium of the U.S. – AK	$0	$0	$0
10-4-021	9-08 Chabot Space and Science Center – CA	$0	$0	$0
10-4-022	9-08 Fermi Research Alliance, L.L.C. – IL	$0	$0	$0
10-4-023	9-08 NEON National Ecological Observatory Network, Inc. – CO	$0	$0	$0
10-4-024	12-08 Academy of Natural Sciences of Philadelphia – PA	$0	$0	$0
10-4-025	12-08 Field Museum of Natural History – IL	$0	$0	$0
10-4-026	12-08 Denver Museum of Nature and Science – CO	$0	$0	$0

10-4-027	12-08 American Association of Community Colleges – DC	$41,400	$0	$0
10-4-028	12-08 SCOR Scientific Committee on Ocean Research – DE	$0	$0	$0
10-4-029	9-08 AUI Associated Universities, Inc. – DC	$0	$0	$0
10-4-030	12-08 Astrophysical Research Consortium –WA	$0	$0	$0
10-4-031	6-08 Bigelow Laboratory for Ocean Sciences – ME	$0	$0	$0
10-4-032	12-06 American Institute of Biological Sciences, Inc. – DC	$0	$0	$0
10-4-033	12-08 American Physical Society – MD	$0	$0	$0
10-4-034	12-08 Hopa Mountain Foundation – MT	$0	$0	$0
10-4-035	12-08 Santa Fe Institute – NM	$0	$0	$0
10-4-036	12-08 Samuel Roberts Noble Foundation, Inc. – OK	$0	$0	$0
10-4-037	12-08 UCAID University Corporation for Advancement of Internet Development – MI	$0	$0	$0
10-4-038	12-08 COL Consortium for Ocean Leadership – DC	$266,525	$0	$0
10-4-039	6-07 REVISED Town of Hudson – MA	$0	$0	$0
10-4-040	12-08 The Franklin Institute – PA	$0	$0	$0
10-4-041	12-08 American Association of Physics Teachers – MD	$0	$0	$0
10-4-042	12-08 Rocky Mountain Biological Laboratory – CO	$0	$0	$0
10-4-043	12-08 American Geophysical Union – DC	$0	$0	$0
10-4-044	12-08 Biological Sciences Curriculum Study, Inc. – CO	$0	$0	$0
10-4-045	12-08 American Institute of Biological Sciences, Inc. – DC	$267,638	$267,638	$0
10-4-046	9-08 REJECTED EBIRE East Bay Institute for Research and Education – CA	$0	$0	$0
10-4-047	12-08 AAAS American Association for the Advancement of Science – DC	$0	$0	$0
10-4-048	12-08 Boyce Thompson Institute for Plant Research, Inc. – NY	$0	$0	$0
10-4-049	12-08 REJECTED Center for Severe Weather Research – CO	$0	$0	$0
10-4-050	12-08 Donald Danforth Plant Science Center – MO	$0	$0	$0
10-4-051	12-08 OPeNDAP Open Source Project for Data Access Protocol – RI	$0	$0	$0
10-4-052	12-08 Puget Sound Foundation for Teaching Learning and Technology – WA	$0	$0	$0
10-4-053	9-08 The Algebra Project, Inc. – MA	$0	$0	$0
10-4-054	12-08 The Shodor Education Foundation – NC	$0	$0	$0

10-4-055	12-08 Triangle Coalition for Science and Technology Education – VA	$0	$0	$0
10-4-056	12-08 UNAVCO, Inc. – CO	$0	$0	$0
10-4-057	3-09 Association of Science-Technology Centers Incorporated – DC	$0	$0	$0
10-4-058	2-08 REJECTED Astronomical Society of the Pacific – CA	$0	$0	$0
10-4-059	12-08 CUAHSI Consortium of Universities for the Advancement of Hydrologic Sciences – DC	$0	$0	$0
10-4-060	6-09 REJECTED IUP Research Institute – PA	$0	$0	$0
10-4061	5-09 National Science Teachers Association – VA	$0	$0	$0
10-4-062	12-08 Space Science Institute – CO	$0	$0	$0
10-4-063	12-06 World Technology Evaluation Center, Inc. – MD	$0	$0	$0
10-4-064	12-08 Woods Hole Oceanographic Institute – MA	$1,120	$0	$0
10-4-065	12-08 Institute for Broadening Participation – ME	$0	$0	$0
10-4-066	12-08 Association for Institutional Research – FL	$0	$0	$0
10-4-067	5-09 Oregon Museum of Science and Industry	$0	$0	$0
10-4-068	6-09 Shepherd University Research Corporation – WV	$0	$0	$0
10-4-069	6-08 Liberty Science Center – NJ	$0	$0	$0
10-4-070	6-09 Viewpoints Research Institute, Inc.–- CA	$0	$0	$0
10-4-071	6-09 Exploratorium – CA	$0	$0	$0
10-4-072	6-09 California Science Center Foundation	$0	$0	$0
10-4-073	12-08 Anchorage Museum Association – AK	$0	$0	$0
10-4-074	6-09 Southern Oregon Public Television, Inc.	$0	$0	$0
10-4-075	6-09 William Marsh Rice University – TX	$0	$0	$0
10-4-076	9-08 REVISED EBIRE East Bay Institute for Research and Education – CA	$0	$0	$0
10-4-077	9-09 ARCUS Arctic Research Consortium of the U.S.–- AK	$0	$0	$0
10-4-078	6-09 Southwest Center for Educational Excellence – MO	$0	$0	$0
10-4-079	6-09 Bigelow Laboratory for Ocean Sciences – ME	$0	$0	$0
10-4-080	9-08 Young People's Project, Inc. – MA	$0	$0	$0
10-4-081	6-09 CRA Computing Research Association, Inc. – DC	$0	$0	$0
10-4-083	6-09 Cary Institute of Ecosystem Studies, Inc. – NY	$0	$0	$0
10-4-084	8-09 Twin Cities Public Television – MN	$0	$0	$0
10-4-085	6-09 Science Museum of Minnesota	$0	$0	$0

10-4-087	6-09 New York Hall of Science	$0	$0	$0
10-4-088	6-09 Louisiana Museum Foundation	$0	$0	$0
10-4-089	6-09 National Alliance for Partnerships in Equity Education Foundation – PA	$0	$0	$0
10-4-090	6-09 Pacific Science Center Foundation – WA	$0	$0	$0
10-4-091	6-09 The Institute for Global Environmental Strategies – VA	$0	$0	$0
10-4-092	7-09 MSRI Mathematical Sciences Research Institute – CA	$0	$0	$0
10-4-093	6-09 University Enterprises, Inc. – CA	$0	$0	$0
10-4-094	6-09 Keck Graduate Institute of Applied Life Sciences – CA	$11,641	$0	$0
10-4-095	6-09 Public Radio International, Inc. – MN	$0	$0	$0
10-4-096	6-09 Oregon Public Broadcasting	$0	$0	$0
10-4-097	6-09 Maine Mathematics and Science Alliance	$0	$0	$0
10-4-098	6-09 Council for Adult and Experiential Learning – IL	$0	$0	$0
10-4-099	12-08 Stroud Water Research Center, Inc. – PA	$0	$0	$0
10-4-100	8-09 WGBH Education Foundation – MA	$1,881	$0	$0
10-4-101	6-09 IRIS Incorporated Research Institutions for Seismology – DC	$0	$0	$0
10-4-102	6-09 Institute for Advanced Study – NJ	$0	$0	$0
10-4-103	9-09 The Algebra Project, Inc. – MA	$0	$0	$0
10-4-104	6-09 Stark County Educational Service Center – OH	$0	$0	$0
	Total:	**$614,996**	**$268,414**	**$0**

Other Federal Audits

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
10-5-005	6-08 Northeastern University – MA	$6,125	$6,125	$0
10-5-013	6-08 Seattle University – WA	$349,808	$0	$0
10-5-015	9-08 Oglala Lakota College – SD	$4,104	$4,104	$0
10-5-016	6-08 State of Arizona	$71,858	46,045	$0
10-5-044	9-08 American Indian Higher Education Consortium – VA	$9,130	$0	$0
10-5-055	9-08 Fort Berthold Community College – ND	$1,356	$1,356	$0
10-5-060	6-09 California State L.A. University Auxiliary Services, Inc.	$56,093	$56,093	$0
	Total:	**$498,474**	**$113,723**	**$0**

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 within six months of the report's issue date. At the end of the reporting period there were fifteen reports remaining that met this condition. The status of recommendations that involve internal NSF management is described on page 42.

Report Number	Subject	Questioned Costs	Unsupported Costs	Better Use of Funds	Cost Sharing At-Risk
05-1-005	RPSC Costs Claimed FY2000 to 2002	$33,425,115*	$0	$0	$0
07-1-017	RPSC 2003/2204 Raytheon Polar Services Company	$22,112,521*	$0	$0	$0
07-1-003	Triumph Tech, Inc.	$80,740	$1,192	$0	$0
07-1-015	Supplemental schedule to #06-1-023 RPSC	$560,376	$0	$0	$0
07-1-019	Abt Associates	$22,716	$0	$0	$0
09-1-007	CRDF U.S. Civilian Research & Development Foundation	$198,926	$0	$1,153,497	$0
09-1-010	Carnegie Institution of Washington	$25,718	$25,718	$0	$0
09-1-011	Wisconsin Ice Core Drilling Services	$2,475,308	$27,308	$0	$0
09-1-014	University of Michigan	$1,604,713	$1,418,889		$136,263
09-4-088	12-07 American Association of Community Colleges – DC	$12,734	$0	$0	$0
09-5-048	8-07 College of the Mainland – TX **	$110,629	$0	$0	$0
09-5-052	6-07 Howard University – DC	$1,125,491	$662,940	$0	$0
09-5-159	6-08 University of Richmond and Its Affiliates – VA	$35,400	$35,400	$0	$0
09-5-164	6-08 Ohio State University	$100,560	$0	$0	$0
09-5-176	9-07 Fort Berthold Community College – ND	$75	$75	$0	$0
	Total:	$61,891,022	$2,17,522	$1,153,497	$136,263

* Audit report Nos.05-1-005 and 07-1-017 have been partially resolved. For Report No. 05-1-005, $12,490,377 has been resolved; for Report No. 07-1-017, $8,802,474 has been resolved.
** This report is under OIG review.

INVESTIGATIONS DATA
(October 1, 2009 – March 31, 2010)

Civil/Criminal Investigative Activities

Referrals to Prosecutors	4
Criminal Convictions/Pleas	1
Civil Settlements	1
Indictments/Information	0
Investigative Recoveries	$1,408,317.97

Administrative Investigative Activities

Referrals to NSF Management for Action	21
Research Misconduct Findings	6
Debarments	6
Administrative Actions	47
Certifications and Assurances Received[5]	23

Investigative Case Statistics

	Preliminary	Civil/Criminal	Administrative
Active at Beginning of Period	46	87	72
Opened	125	26	36
Closed	127	28	32
Active at End of Period	44	84	76

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	50
Requests Processed	51
Appeals Received	0

Response time ranged between 3 days and 18 days, with the median around 13 days and the average around 13 days.

5 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.

Appendix

The 2009 OIG Performance Report is posted on our website at: *http://www.nsf.gov/oig/PerfPlan0910.pdf*.

The Report describes the specific strategies and actions OIG has undertaken over the past year in pursuit of the three major goals set forth in our Annual Performance Plan. The goals are: 1) Promote NSF effectiveness and Efficiency; 2) Safeguard the integrity of NSF programs and resources; and 3) Utilize OIG resources effectively and efficiently.

Acronyms

AD	NSF Assistant Director
AIG	Associate Inspector General
ARRA	American Recovery and Reinvestment
CAREER	Faculty Early Career Development Program
CAS	Cost Accounting Standards
CBA	Collective Bargaining Agreement
CIGIE	Council of Inspectors General on Integrity and Efficiency
CISE	Computer and Information Science and Engineering Directorate
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
DoE	Department of Energy
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
GAS	Government Auditing Standards
GPRA	Government Performance and Results Act
HHS	Department of Health and Human Services
IG	Inspector General
MIRWG	Misconduct in Research Working Group
MREFC	Major Research Equipment and Facilities Construction
NIH	National Institute of Health
NSB	National Science Board
NSF	National Science Foundation
OEOP	Office of Equal Opportunity Programs
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPP	Office of Polar Programs
OPM	Office of Personnel Management
PCIE	President's Council on Integrity and Efficiency
PI	Principal Investigator
PFCRA	Program Fraud Civil Remedies Act
SBIR	Small Business Innovation Research
STC	Science and Technology Centers
USAP	United States Antarctic Program

About the Cover...

Collage of photos from the NSF multimedia gallery prepared using image manipulation techniques similar to those involved in allegations of data fabrication and falsification.

Cover design by Scott J. Monroe.

Photo credits for individual source images:

Main image:

The Blue Moon butterfly, by Sylvain Charlat.

Inset photos:

The Coast Guard cutter Healy, by Henry Dick.

The world's first silicon spin-transport devices fabricated and measured in Ian Appelbaum's lab at the University of Delaware (UD). More than 25 individual silicon spin-transport devices are represented, one within each tiny wire grid, on this ceramic chip holder. By Jon Cox.

Past and Future Tech (wind turbines), by University Corporation for Atmospheric Research.

AUV Sentry, by Chris German.

Jaemi the Humanoid Robot, by Lisa-Joy Zgorski.

Sifaka Lemur in Madagascar, by Walter Jetz.

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