

Office of Inspector General

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REPORT
TO THE
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National Science Foundation

Semiannual Report to the Congress

october 1, 1990 — march 31, 1991

NATIONAL SCIENCE FOUNDATION • OFFICE OF INSPECTOR GENERAL

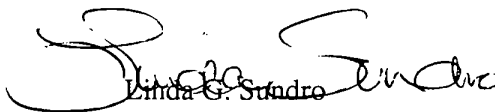
April 30, 1991

TO THE NATIONAL SCIENCE BOARD AND THE CONGRESS

This report describes our activities for the first half of fiscal year 1991. Section 5 of the Inspector General Act of 1978, as amended, requires that the National Science Board transmit this report to the Congress within 30 days of its receipt, along with any comments the Board may wish to make.

During this reporting period, our auditors completed a 2-1/2 year review of the agency's museum, science center, and botanical garden community. A major misconduct case was also resolved, and we continued to provide leadership in the federal effort to evaluate and respond to allegations of misconduct in research and education in science and engineering. OIG's Assistant Inspector General for Oversight, who is responsible for this effort, was recognized by a professional organization for his outstanding work in this area.

We appreciate the continued support and interest the National Science Board has shown in our work. Leadership of the agency has been assumed by a new Director—the agency's first new Director in 6 years. We look forward to working with him and his staff in the months to come.



Linda G. Sundro
Inspector General

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EXECUTIVE SUMMARY

This report covers the 6-month reporting period from October 1, 1990, through March 31, 1991. It provides an account of the major work of the Office of Inspector General by describing significant problems and deficiencies identified during our audits, investigations, and reviews as well as the recommendations we made for corrective actions. We also describe the Foundation's responses to our findings and acknowledge management's contribution to our mission.

We completed a 2-1/2 year review of the Foundation's museum, science center, and botanical garden community. Over the last 5 years, the Foundation provided \$71 million in direct support to these institutions and \$2.2 million to support their associations. During the course of our 30-month review, we conducted 29 individual audits. Based on the data developed, we identified common issues involving: poor internal controls, inadequate accounting and financial control systems, inadequate understanding of indirect cost principles, and a disregard for the terms and conditions of grant agreements.

Museums, science centers, and botanical gardens are increasingly being used as the focal point for informal science education programs. As a result, the Foundation has increased its financial support and more funds are being generated by the private sector. We believe our review and active involvement with NSF

awardees will help this segment of the grantee community respond effectively to administrative pressures created by the growth of their budgets and programs.

We resolved a major misconduct case by negotiating settlements with a co-principal investigator and his employing institution. Under the terms of the settlement, the scientist agreed not to be a principal investigator or senior researcher on a grant or contract with any federal agency for a 5-year period. In addition, he will not serve as a reviewer on any NSF grant proposal for the same period. The institution has agreed not to apply for an NSF grant for 2-1/2 years and will return approximately \$7,400 in grant funds. In addition, the institution will, at its own expense, conduct a seminar for its employees and others on appropriate faculty behavior in a field program.

Our work in the federal effort to improve mechanisms for resolving allegations of misconduct in science has been furthered by proposed revisions to the Foundation's misconduct regulations. The revised regulations make it clear that misconduct is proscribed under any NSF-funded activity, whether research or education related, and they expressly prohibit retaliation against whistleblowers.

We remain concerned about the Foundation's plans for relocation. In 1986, when the Foundation first made plans to move, its

expectations of growth in staff size and operational budget were more optimistic than exist today. However, since 1986 NSF's salaries and expenses appropriation has grown only about 5 percent annually. In this fiscal environment, we question whether executing plans for a \$17 million move to an, as yet, unconstructed building is in the best interests of the agency or the science community. We oppose suggestions that the Foundation use funds from one or more of its program accounts to finance any portion of the relocation and we

suggest that the agency begin exploring alternatives.

Our accomplishments have been made possible by the continued support of NSF management and the National Science Board. We are committed to working with the new Director and his staff to improve administration and management of the agency's programs.

OVERVIEW

Building Relocation

In our last semiannual report, we described deficiencies associated with the building in which most of the Foundation's staff is housed. Since then the agency has been planning for relocation under financial constraints that cause us considerable concern.

In 1986, NSF asked the General Services Administration (GSA) for assistance in obtaining space to consolidate agency operations, upgrade the work environment, and provide additional space to meet future agency needs. In the early stages of the search for new space, GSA identified and offered the Foundation a building located in a suburb of the District of Columbia. NSF declined this offer pending evaluation of other sites, including some located in downtown Washington, D.C. Ultimately, NSF decided that only a new building, designed and built to suit its unique requirements, would be acceptable. In 1989, GSA initiated a competition to solicit offers for such a building in the Washington, D.C., metropolitan area.

The competition culminated in 1990 when GSA identified four sites: two in the District of Columbia and two in suburban Virginia. GSA, working with the Foundation, evaluated all of the sites and recommended one located in Arlington, Virginia. The cost of the Arlington relocation was estimated at \$17 million, from fiscal years 1991 through 1993.

In 1986, when the Foundation first contemplated moving into a facility built to suit its specifications, its expectations of growth in staff size and operational budget were more optimistic than exist today. At that time, NSF expected its budget to double by 1991; that goal has been delayed until 1994. Similarly, it appeared that NSF's operational budget would grow in proportion to its overall budget. In fact, NSF's salaries and expenses appropriation (which includes funds for staff salaries, benefits, travel, rent, relocation, equipment, etc.) has grown only about 5 percent annually, while NSF's full-time equivalent allocation has increased by 106 (a 9.4-percent increase) and actual on-board employees have increased by 120 (a 10-percent increase) since 1988.

In this fiscal environment, we question whether executing tentative plans for such an expensive relocation is in the best interest of the Foundation or the nation's science and engineering communities. This concern is apparently shared by the agency's congressional appropriation committees. NSF requested \$5.5 million in support of the proposed relocation for fiscal year 1991, and it did not receive any funding. For fiscal year 1992, the agency has requested \$7 million, the balance to be appropriated in fiscal year 1993.

Without funds appropriated for relocation in 1991, we were concerned that the Foundation's resources would be inadequate to absorb such an expense without serious depletion of the funds

that support agency operations. The Acting Director of NSF shared our concern and informed GSA that to undertake the proposed relocation without a significant budget increase in NSF's salaries and expenses appropriation would substantially reduce available support for the Foundation's mission and its staff. He reiterated his commitment to recruiting, retaining, and supporting the staff needed to accomplish the agency's mission and his opposition to significantly reducing that support to fund relocation. Finally, the Acting Director explicitly advised GSA that, in light of the Foundation's budget situation, GSA should not take any action that would obligate NSF to use its resources in support of the proposed relocation.

Despite the concerns of NSF management, GSA entered into a lease agreement for NSF's proposed new building on December 19, 1990. The building's construction is expected to begin in June 1991. Initial occupancy is planned for January 1993 and scheduled to be completed by the end of July 1993. At this time, GSA is not assisting the Foundation in exploring alternatives for obtaining space when the Foundation's lease on its present location expires in 1995, and it has directed the agency to move to the building identified by the procurement process.

It is too early in the fiscal 1992 budget cycle to make predictions about the amount, if any, the Congress will be willing to make available in support of NSF's relocation. However, it is not, in our view, premature to develop alternatives to the expensive plan now proposed. For example,

GSA could obtain a lower-cost lease in an existing building instead of a new building or lease less space.

The proposed relocation will meet NSF's objectives to consolidate agency operations, upgrade the work environment, and provide additional space, but only if sufficient funds are appropriated in support of the project. If sufficient funds are not appropriated and NSF is compelled to make the proposed move, we believe adverse effects on its operations will be significant and lasting.

There have been suggestions that the Foundation request permission to use funds from one or more of its program accounts, which pay for research grants and related activities, to pay for costs associated with relocation. We vigorously oppose any such plans to use funds for relocation that would otherwise be available for the agency's basic mission of scientific research and education.

The men and women who work for the Foundation are exceptionally dedicated and hard-working public servants. The Foundation's employees, as well as the agency's mission, deserve the best working environment the nation can provide. We cannot, however, countenance any plan that may place a substantial financial burden on the people and institutions that the Foundation serves or that may significantly interfere with NSF's ability to finance day-to-day operations.

REPORTING REQUIREMENTS

The table below cross-references the reporting requirements prescribed by the Inspector General Act of 1978, as amended, to the specific pages in the report where they are addressed.

Requirement		Page
Section 4(a)(2)	Review of Legislation and Regulations	39
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	Throughout
Section 5(a)(2)	Recommendations With Respect to Significant Problems, Abuses, and Deficiencies	Throughout
Section 5(a)(3)	Prior Significant Recommendations on Which Corrective Action Has Not Been Completed	44
Section 5(a)(4)	Matters Referred to Prosecutive Authorities	24
Section 5(a)(5)	Summary of Instances Where Information Was Refused	50
Section 5(a)(6)	List of Audit Reports	51
Section 5(a)(7)	Summary of Each Particularly Significant Report	Throughout
Section 5(a)(8)	Statistical Table Showing Number of Reports and Dollar Value of Questioned Costs	58
Section 5(a)(9)	Statistical Table Showing Number of Reports and Dollar Value of Recommendations That Funds Be Put To Better Use	51
Section 5(a)(10)	Summary of Each Audit Issued Before This Reporting Period for Which No Management Decision Was Made by End of the Reporting Period	44
Section 5(a)(11)	Significant Revised Management Decisions	50
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EXTERNAL AUDIT

Introduction

The Office of External Audit is responsible for audits of grants, contracts, and cooperative agreements funded by NSF's programs and operations. The office conducts financial audits that include a review of accounting records and other financial information to assist NSF management in determining if amounts claimed or billed for direct and indirect costs are reasonable and allowable, and if the grantee or contractor has complied with laws and regulations under which funding was provided. These reviews are conducted at universities, commercial firms, and nonprofit organizations.

Audits are conducted by independent public accountants, state and federal agencies, and NSF's OIG staff. Reviews of NSF grants and contracts at most educational institutions are performed by public accountants or state auditors under the oversight of the Department

of Health and Human Services' OIG. NSF's OIG staff, public accountants under contract directly with OIG, and the Defense Contract Audit Agency conduct audits in the nonprofit and commercial areas. All audit reports processed by the OIG are referred to NSF management for action or information. The Office of External Audit is also responsible for providing advice and assistance to NSF's Division of Grants and Contracts (DGC) in its resolution of the recommendations resulting from the audits.

In addition to the assistance provided for activities directly related to audits, External Audit also provides assistance to NSF by acting as a liaison between NSF and audit groups from the private sector and other federal agencies, arranging for special reviews, obtaining information, and providing technical advice.

Recent Activities

During this reporting period, the Office of External Audit participated in a broad range of audit-related activities by providing technical advice to and discussing specific problems with awardees, assisting in the resolution of audit findings and recommendations, and participating in public forums. Our efforts have helped awardees comply with federal financial and accounting requirements so they can concentrate on the science and educational aspects of their activities. Specifically, our activities included:

- Working with cognizant federal agencies and awardees to improve compliance with Office of Management and Budget (OMB) Circulars A-110, A-128, or A-133.
- Consulting with NSF awardees about the requirements of OMB Circular A-133, which expands and clarifies the audit requirements under OMB Circular A-110.
- Speaking at three national conferences on the Small Business Innovation Research program and at a meeting of the Association of Science and Technology Centers.

In addition, we processed 146 audit reports. Cognizant audit agencies conducted 99 of these audits. OIG staff conducted 18 audits and public accountants under contract to OIG conducted the remaining 29. The table shows the total number of reports issued by OIG staff, public accountants, and cognizant auditors since April 1989.

Reporting Period	Cognizant Auditors	Public Auditors	OIG Auditors	Total Reports
10-01-90 to 03-31-91	99	29	18	146
04-01-90 to 09-30-90	89	28	18	135
10-01-89 to 03-31-90	144	42	6	192
04-01-89 to 09-30-89	87	28	1	116

Significant Audit Work

This section briefly describes significant audits completed by External Audit or contract auditors during this reporting period.

Museums, Science Centers, and Botanical Gardens

The activities of museums, science centers, and botanical gardens (described below as the science museum and garden community) have recently grown both in kind and scope. Increasingly, these institutions are being used as the focal point for informal science education and community outreach. For this reason, the Foundation has increased the overall amount of funding to the community, as well as the number of institutions supported.

Over the last 5 years, the Foundation provided \$71 million in direct support to 65 museums, science centers, and botanical gardens. The Foundation also provided \$2.2 million to associations of museums and science centers for technical assistance to their members. The NSF Directorate for Biological, Behavioral and Social Sciences and the Directorate for Education and Human Resources provided most of the funding for these programs.

Foundation funding for this community falls into five major categories:

- Support for the design and construction of new exhibits.
- Support for existing collections, including care, maintenance, and reorganization.
- Development of educational and outreach programs as well as educational materials.
- Support of basic research and archeological excavations.
- Support of conferences and publications.

The Foundation is only one partner in a nationwide effort to increase funding for the science museum and garden community. The community has expanded its traditional base of financial support by establishing private foundations, which request contributions from

the public and solicit federal, state, and local grants. In addition, separate museums and botanical gardens now participate together in group projects and peer consortia.

The success of the science museum and garden community in attracting increased funding has imposed new demands on management. The dollar amounts that pass through these organizations have increased dramatically. Accounting practices designed for small organizations may no longer be able to handle the increased flow of dollars. Poor accounting systems increase the likelihood that defalcations or disallowances will occur.

As the community attracts funding from additional sources, administrators must be able to address special requirements that can differ greatly depending on the kind of grant or other form of financial assistance. Several of these science museums and gardens have recently become independent from a municipal or state system. Financial managers may not be aware that their newly private, nonprofit organizations

may be subject to different federal funding rules than those which applied when these organizations were part of a state or local government. Cost principles and reporting and compliance requirements may significantly change when the new organizational structure is created.

We were concerned whether existing financial management in the science museum and garden community effectively handled its more sophisticated responsibilities. As a result of our concerns, we performed individual audits of several science museums and botanical gardens. Our initial audits confirmed our concerns and identified significant adverse findings. We then expanded our efforts to provide a broader base from which to draw conclusions. Over the last 2-1/2 years, we conducted 29 audits of science museums and botanical gardens.

Based on the data developed, we identified the following six common issues among this important segment of the Foundation's grantees.

Inadequate Understanding of Indirect Cost Principles and Procedures

Indirect cost principles and their application are one of the most difficult aspects of federal financial assistance. We found grantees needed to develop a better understanding of indirect cost terminology, pay more attention to the details of the indirect cost portions of grant budgets, and understand why indirect costs are authorized.

We found that, in general, the science museum and garden community did not understand that indirect cost rates affect the recovery of expenditures in different ways. In some cases, this lack of understanding had the effect of restricting the funding available to grantees.

We also found that sufficient attention was not paid to the indirect cost rate, either in percentage or kind, established by the grant budget. The kind of indirect cost rate and the percentage payable may be different from that proposed by the grantee. The budget returned to the museum with the grant letter is the controlling document. It is imperative that museums know if conditions of awards are different than proposed and adjust their operating budgets accordingly.

Some grantees apparently do not understand why indirect costs are paid. Indirect cost calculations and payments are designed to provide a means for the grantee to be

reimbursed for actual costs incurred that support the overall institution. These costs cannot be readily identified as specifically supporting any

particular program or project, but must be allowable and allocable to research or science education.

Inadequate Systems of Accounting and Financial Control

Most awardees were deficient in some aspect of federal requirements for adequate accounting and financial control systems. We frequently encountered deficiencies in project cost accounting systems; time cards and payroll allocation systems; documentation of claimed

expenses; procurement and accountability records for federally funded property and equipment; record retention; and controls for charging only allowable, allocable, and incurred costs.

Insufficient Separation of Duties

This important internal control deficiency resulted most often because the grantee employed so few administrative staff members. In other cases, the staff's assigned duties undermined internal control principles. For example, we identified situations where one staff member: received cash, made bank deposits, wrote checks, and reconciled the accounts; hired staff, controlled personnel records, authorized payrolls, and distributed checks; or authorized purchases and signed

receiving reports. While we do not advocate the creation of large administrative staffs within small institutions, we have recommended that different staff members should be assigned to perform tasks that should be separate. We also recommended that controls be placed in the system to deter and readily identify unauthorized activities when only a limited number of staff members are available.

Lack of Written Policies and Procedures

Rapid growth in a number of institutions has significantly increased administrative workload and staff size. In many cases, growth has occurred so quickly that policies and procedures

have not been standardized or documented. Written administrative policies and procedures are required, in many cases, to be eligible for federal funding.

Insufficient Approvals for Grant Modifications

Although Foundation grant awards are not procurement contracts, they constitute a contractual agreement between the federal government and the recipient. These agreements are described in the award document, which establishes the appropriate use of funds disbursed under the grant and

sometimes places restrictions on the use of federal funds. If, because of unanticipated circumstances, the grantee needs to make changes in the way it intended to spend the grant funds, the Foundation's approval must be obtained prior to expenditure.

We found grantees routinely failed to obtain written approval from the Foundation when they needed to spend funds differently than described in the award document. In some cases, grantees were unaware that prior written approval was required. In other cases, the need to obtain

approval was ignored. Occasionally, oral approval was obtained. Overall, we observed a lack of understanding of the importance of documenting the reasons for and permissions received for significant changes in award budgets or implementation methodology.

Lack of Attention to Financial Management

Our audits indicate that many awardees may not have adequate financial management to address their increased funding and more complex operations. Many of these organizations were once relatively small and adequately controlled by a single scientist or administrator. Typically, these organizations are expected to manage with an administrative staff of the same size and level as before. This may have occurred because growth in science museum and garden staffing seems to be skewed toward increases in scientific staff as these institutions face enormous pressure to use virtually all increased funding in support of new or enhanced science and education programs. The business and management aspects of the programs tend to be neglected at a time when they need more attention. Accordingly adequate internal controls are lacking and financial managers do not have the capacity to fully account for federal funds.

Similarly, staff may be asked to work at a level that exceeds their training and experience. Individuals who previously posted recurring payrolls and operational expenses are now required to address special requirements under different kinds of grants or other forms of financial assistance. These individuals may need training to perform these new responsibilities.

While we do not advocate the building of large bureaucracies, particularly within small institutions, adequate staff with sufficient training should be employed to manage these organizations properly. We believe that institutions within the science and garden community should review their current operations to ensure that financial administrators have the resources and training they need to provide an appropriate level of support for program staff.

Other Findings:

In addition to these major concerns, we also identified the following common deficiencies in grant administration:

- Insufficient documentation of consulting agreements and subcontracts.
- Failure to comply with audit requirements imposed by OMB circulars.
- Premature drawdown of grant funds.

- Poor compliance with conflict-of-interest restrictions on employees and sub-contractors.

We plan to continue auditing this segment of our grantee community. Increased auditing requirements imposed by OMB Circular A-133 will also result in more frequent audits. We hope these reviews are useful in helping to improve financial and management controls within the science museum and garden community.

The following section describes other audits conducted by External Audit and contract auditors during the reporting period.

Museum Has Questioned Costs

We audited a natural history museum, located in the midwest, which received 49 awards valued at \$7,333,292. Claimed costs under these awards were \$5,306,944.

Our audit questioned \$52,173 in costs because (1) unidentified costs were claimed, (2) some of the subcontract and related costs claimed were unsupported, (3) fringe benefits were claimed in excess of actual costs, and (4) indirect costs were claimed in excess of predetermined indirect cost rates.

In addition to the questioned costs, we found inadequate records to ensure control of \$981,696 of nonexpendable property procured under the grants. In addition, compensated

absences were being charged directly to the grants rather than through the fringe benefits rate.

This museum had been previously audited. During our review, we found that findings from the previous audit had been addressed except (1) fringe benefit expenses had not been adjusted to reflect actual expenditures incurred and (2) compensated absences continued to be charged directly to the grants. The grantee stated that these two deficiencies will be corrected with the implementation of a new fund accounting system.

OIG will continue to monitor this situation.

A Majority of Thirteen Grants to Association Has Questioned Costs

NSF awarded 13 grants for an aggregate amount of \$4,887,741 to a professional association in Virginia. These grants were in support of symposiums, research to improve a government-generated social science database, and onsite research to improve education and labor statistics. The association claimed costs

for \$3,970,652. Our audit questioned \$768,037 of the costs.

The audit disclosed that the grantee had not established procedures for procurement or for property management as required by OMB circulars. We also found that financial standards were not maintained in a manner that controlled

and supported the allowability of grant expenditures. Lack of internal controls allowed the grantee to claim (1) labor and fringe benefit costs that were not supported by timesheets; (2) unallowable costs for meetings, including alcoholic beverages; (3) costs not recorded on the books of account; (4) direct costs that were inadequately documented; and (5) indirect costs in excess of allowable amounts.

We also found the grantee generated program income that was not used to offset or reduce costs under the grants and made claims for participant support that were not used for this restricted category of expenditure.

We recommended that before receiving any other NSF grants, the association establish internal control procedures that generate documentation to support actual costs incurred.

Nonprofit Does Not Provide Documentation To Support Reimbursement Claims

NSF awarded 10 grants for an aggregate \$1,998,449 to a nonprofit science society in Washington, D.C., for support of in-service training workshops, travel grants, and a young scholars' partnership program. These grants were awarded over a 6-year period, beginning in 1984. We reviewed costs totaling \$1,627,407.

The science society did not have source documentation to support all of its claimed expenses. We also found that although the society's policy was to put the invoices and supporting documentation on microfilm before destroying the originals, microfilm was not available to support over \$106,000 of claimed costs even though paper documentation had been destroyed. Auditors also found that:

- Consulting fees exceeded federal ceilings.
- Salaries and fringe benefits claimed were based on budgeted amounts rather than actual expenditures.

- Documentation was not available to determine the reasonableness of consultants' fees.
- Costs were claimed that had been incurred more than 90 days before the grant was awarded.
- Indirect costs claimed exceeded actual expenditures.
- A final project report for a grant, which ended in November 1987, could not be located.
- An independent audit, required by the grant agreements, had not been conducted.
- Employees were not required to submit after-the-fact activity reports.

Our audit questioned a total of \$227,738 of costs.

Nonprofit Fails To Claim Costs in Accordance With Federal Guidelines

NSF awarded a \$1,558,192 grant to a nonprofit organization to develop an experimental science curriculum for elementary schools. Claimed costs under the grant were \$832,726. We questioned \$102,986 in costs.

The nonprofit organization violated OMB Circular A-122 cost principles and did not comply with OMB Circular A-110 guidance. We found the following questionable practices:

- Prepayments on a 6-year lease for an office trailer were claimed as direct expenses during the 19 months of the grant instead of being amortized over the life of the lease. These prepayments caused rent expenses to be claimed at \$69,738 instead of \$14,558.
- The grant provided for a fixed dollar amount for indirect costs. The grantee claimed excess costs by charging \$27,208 of indirect type costs as direct expenses.
- Costs claimed exceeded costs incurred.
- Claimed labor costs were not supported by timesheets.
- Reimbursements received were not credited to the grant.
- Capital expenditures were made without NSF approval.
- Drawdowns of funds were made in advance of current needs.
- Interest earned on early drawdowns was not paid to NSF.
- Accounting duties were not adequately segregated.
- Salaried employees recorded a standard time on their timesheets rather than actual hours worked.
- The grantee did not conduct audits required by OMB circulars.

OIG will be monitoring resolution activities closely.

Institute Claims Unsupported Travel Costs

We audited a nonprofit institute in Virginia, which received 12 awards for sponsorship, support, or travel to national and international conferences. The award budgets totaled \$603,799, and claimed costs were \$564,572. Our audit questioned \$88,596 in costs.

The majority of the costs were questioned because the grantee did not have adequate documentation to support travel costs and did not justify travel on foreign airlines. We found

that the grantee claimed costs in excess of those incurred. The grantee also charged indirect costs at rates exceeding both actual costs and maximum provisional rates specified in the grant agreements.

The audit identified record deficiencies, such as timesheets prepared in pencil, improper changes to timesheets, and unsigned timesheets. In addition, the institute had not conducted an audit as required by OMB Circular A-110.

SBIR Grantee Increases Subcontract Costs Without NSF Approval

NSF awarded a Small Business Innovation Research (SBIR) grant for \$193,600 to a for-profit small business that works on catalytic air cleaners. We audited \$187,952 of claimed expenditures under the grant and questioned \$98,354.

We found that (1) the grantee increased subcontract costs from \$7,000 to \$56,480 without consulting NSF or obtaining approvals; (2) the grantee's accounting system did not meet the standards of the grant's general conditions or OMB requirements; (3) the grantee could not

demonstrate that it obtained the lowest prices on equipment and materials paid for under the grant; (4) written policies and procedures were not maintained for travel, procurement, and property management; (5) the principal investigator's salary was not supported by timesheets; and (6) invoices for \$28,000 were not available to support the services and rate of pay for a consultant. In addition, we found that the funding commitment for private funding of "Phase III" of the program had been rescinded without explanation.

Research Firm Fails To Maintain Records

NSF awarded a \$225,000 grant to a small business organization involved in the delivery of unique biochemicals used in neurological research. Our audit examined \$154,901 in costs claimed for reimbursement, and we questioned \$89,291.

We questioned all salaries, wages, and fringe benefits. The grantee did not maintain records of time worked. Salaries charged to the grants were based on estimates of time as described in the original grant proposal not on actual time worked. The grantee maintained time records for absences only.

In addition to questioned costs for salaries and wages, the grantee (1) did not have adequate documentation to support expenditures for materials and supplies, (2) did not receive NSF approval for special equipment purchases, and

(3) claimed indirect costs in excess of allowed expenditures. The research firm also had problems with compliance and internal control requirements, such as:

- lack of inventory control standards;
- cash advances requested in excess of the grantee's needs;
- no comparison of actual costs to budgeted costs for control purposes;
- inadequate accounting system;
- inadequate separation of duties in payroll, cash, and procurement areas; and
- no audit as required by OMB Circular A-110.

Commercial Firm Earns Interest on NSF Funds

Since 1977, NSF has awarded grants to a privately owned for-profit corporation that provides technical and scientific information to commercial television stations. We reviewed two grants totaling \$2,255,496 made to the corporation since 1985. Of the \$2,113,620 claimed under these recent grants, we questioned \$410,338 and recommended that an additional \$21,175 of interest earned on NSF advances be returned to NSF.

The questioned costs resulted from findings that (1) salary and wage costs were not adequately supported by time and effort reports, (2) a loan

to an individual was charged to the NSF grant, (3) indirect costs were charged at a higher rate than the actual indirect cost rate or the maximum provisional rate, (4) invoices supporting some grant costs were missing, and (5) expenses reported on the Federal Cash Transactions Report exceeded actual expenses.

In addition to questioned costs, the grantee had problems with compliance and internal controls. Auditors found that:

- cash advances exceeded the corporation's needs,

- subcontracts charged to the grant did not contain required standard provisions,
- the grantee did not have written procedures for recording accounting transactions,
- the individual project ledgers did not reconcile to the general ledger, and
- the bookkeeper who had authority to write checks was not bonded.

Audits Involving Possible Violations of Law

When conducting audits, we sometimes come across, or are advised of, possible violations of law involving the use of NSF funds. In this reporting period, we initiated four audits of this kind with the assistance of our legal, investigative, and scientific colleagues. Two of

these audits were completed in this reporting period and are described below. The two audits that have not yet been finalized (one involving alleged violations of conflict-of-interest rules and the other involving possible grant diversion) will be described in full when completed.

Commercial Company Inappropriately Claims Costs

NSF awarded a \$205,205 grant to a commercial company to promote scientific research. We reviewed \$146,791 of claimed costs and questioned \$112,065.

Under the terms of the grant, the company stated that it would expend NSF funds in the following way:

- \$32,300 for the president's salary,
- \$42,650 for the salary of four other professionals,

- \$79,690 for subcontracting with two unrelated companies for their scientific expertise, and

- \$50,565 for other expenditures.

Our review disclosed that the grantee expended about 22 percent (\$32,807) of NSF funds correctly for subcontracts to the two unrelated companies. We also approved \$1,919 in travel expenses. All other NSF funds (\$112,065) were questioned. In addition, the company failed to comply with applicable federal regulations and standards of conduct for grantees.

The company had questioned costs resulting from (1) charging NSF for salary and payroll expenses for the company's president without appropriate supporting documentation, (2) charging NSF for the president's subcontracting services, (3) charging NSF for unpaid rent for space in a building that was controlled by the president's father, and (4) other unsupported costs.

Moreover, auditors also uncovered possible violations of law raised by the pattern of business practice: (1) substantial funds, far in excess of the company's budget, were claimed for the president's personal benefit; (2) no funds were expended for the four professionals described in the budget; (3) the company invested \$86,651 of NSF funds in the stock

market and concurrently issued promissory notes in the same amount to the president; (4) the company did not identify personnel expenditures on pertinent tax returns submitted to NSF; and (5) the company used dual, inconsistent general ledgers. Because of this pattern of evidence, we referred this matter to the Department of Justice, which declined to prosecute.

We recommended that NSF terminate the grant and require the company to return \$112,065 to the agency. We also recommended that the company remit to NSF \$1,700 in interest and dividends earned on NSF funds as well as \$11,826 that was advanced to the grantee. The company has agreed that the Foundation has properly disallowed all of these costs.

University Controls Development of Grant Byproduct

This allegation concerned the uses of federal funds to support a company that was not the recipient of an NSF grant, but was owned by an individual who was the principal investigator on an NSF grant. According to the allegation, graduate students who worked for the company were paid with NSF grant funds and the company benefited from the sale of the product developed under the NSF grant.

Our audit concluded that the product (a computer program) was actually a byproduct of the NSF grant. The principal purposes of the NSF grant was for physics research, not for the development of computer programs. We found that the sponsoring university knew about the computer program and had supported

conversion of the initial program to a user friendly version for different computer systems. Subsequent versions of the program were sold through a joint-licensing and profit-sharing arrangement between the university and the principal investigator's company.

The graduate students who worked on the NSF grant and computer program were part-time employees in the university laboratories. These students received graduate degrees that were not in the computer sciences. We found no evidence to support the allegation that students were actually working for the computer company while being paid by the NSF grant.

Although our review did not substantiate the above-discussed allegations, we found that: (1) individuals were hired and paid without anyone contacting the university personnel office, (2) the grant budget on file in the university's accounting office was not the NSF-approved budget, and (3) the personal activity reports

were signed by a person not having first-hand knowledge of the work performed. We questioned \$19,179 in claimed costs. We made recommendations for addressing these findings and have provided a copy of our report to the cognizant audit agency for action.

Conducting Followup Review on Grantees

We have identified certain auditees that need followup reviews. These grantees have the following characteristics: (1) significant problems were uncovered during our initial audit, (2) grantees usually have a continuing relationship with NSF, (3) grantees cannot account for or have improperly expended significant amounts of money, and (4) identified deficiencies can be corrected by making changes in accounting or management systems.

We conducted followup reviews after NSF resolved the audit findings and received notice from the grantee that all actions correcting the findings were complete. The purpose of a followup review is to determine whether corrective actions were actually implemented as represented and whether improvements will effectively correct the deficiencies we identified. During this reporting period, we conducted two followup reviews.

For-profit Corrects Material Deficiencies

We reviewed a for-profit company involved in the collection and reporting of atmospheric information from the Antarctic and other regions. The prior audit found material weaknesses in the company's financial management, timekeeping, property management, and cost allocation procedures. We also found that the grantee did not retain source

documentation to support the allowability and allocability of costs.

During attempts to resolve the prior audit, NSF determined that the company provided unique services, which could not be easily obtained elsewhere. Because of this determination, NSF and OIG developed funding and approval

mechanisms that allowed continuation of grant activities, but severely restricted the flexibility of company operations. These mechanisms protected federal funds.

We conducted a followup review after the company advised NSF and OIG that changes in operations had been made that addressed all of the prior findings. During our current review, we found that the company had:

- established a project cost system for all of its work,
- required time cards for all activities,

- consolidated its operations so that all employees and working arrangements were handled out of a central office,
- established written policies and procedures,
- established working relationships with financial and accounting advisors to assist the company in complying with federal rules and regulations, and
- made arrangements to resolve all questioned costs from the previous audit and generally complied with the requirements under NSF grants.

As a result of our followup reviews, we recommended that NSF resume processing funding requests in the usual manner.

Museum Makes Major Improvements in Control Systems

A second grantee, previously identified in OIG semiannual reports, was reviewed and found to have taken significant corrective actions to address prior findings.

The original audit found that the grantee's systems did not include effective internal controls, costs had been charged without adequate documentation, payroll costs were not always computed on actual time worked, expenditures were improperly coded and classified in the grantee's books of account, and significant differences of opinion existed regarding indirect costs that should be allowable.

Our most recent review found that accounting systems had been improved to address the federal recordkeeping requirements, time card systems had been implemented to account for activity on federal grants, agreements on the types of costs included in the indirect cost system had been made, and most of the questions in the internal control area had been addressed.

We have concluded that the efforts undertaken by the grantee have fully addressed the findings in the prior audit.

INTERNAL AUDIT

Introduction

Internal Audit is one of two operational components in the Office of Internal Audit and Investigations. Internal Audit is responsible for reviewing and evaluating the financial, administrative, and programmatic aspects of NSF activities. These responsibilities also

include evaluating internal controls, reviewing data processing systems, performing inspections, and following up on the implementation of recommendations included in both NSF and General Accounting Office (GAO) audit reports.

Results of Audit Efforts

Significant findings of four audit reports prepared by Internal Audit during this reporting period are discussed below.

NSF'S VOUCHERS PAYABLE SYSTEM

The Division of Financial Management (DFM) operates and maintains NSF's vouchers payable system, which uses at least nine payment methods.

Our review focused on determining whether (1) vouchers and invoices were properly authorized, examined, and certified; (2) payments were prompt, accurate, and properly recorded and documented; (3) internal controls were functioning in the system to detect errors and

irregularities; and (4) the vouchers payable system was performing in accordance with Treasury, OMB, GSA, and NSF circulars and procedural manuals. We tested disbursements made between October 1989 and March 1990 totaling \$88,639,222.

Our review disclosed that the Foundation is not in compliance with the Prompt Payment Act. As a result: (1) a quality control system was not established to monitor the performance of the

vouchers payable system; (2) a prompt payment report had not been submitted to OMB in 2 years; (3) discounts were not taken; and (4) payments were made prior to the payment due date, which cost the government additional interest expense. Thirty-five of the 36 payments tested for prompt payment were paid an average of 17 days earlier than the payment due date and cost the government an additional \$140,621 in interest costs. Written NSF policies and procedures do not reflect the current policies established by the Prompt Payment Act.

We determined that the system's internal controls are not as effective as management originally intended because procedural changes in the vouchers payable system occurred since the controls were established. As a result, DFM does not obtain adequate documentation and proper authorizations for all disbursements. Overall internal controls are weakened by the absence of an agency-wide system for offices and divisions to reconcile individual division and office records monthly with the entries placed on the central financial accounting system.

DFM uses the first-in, first-out (FIFO) basis to charge contract expenses against contract obligations. In most of the cases we reviewed, the results of the process were acceptable. However, for some larger multiyear contracts FIFO did not promote proper matching of obligations with expenses.

DFM does not receive all the contract modifications and action processing forms that

delineate the approvals, dollar amounts, and accounting codes for the modified contracts or interagency agreements. In such cases, DFM cannot independently verify the accuracy of funding documents.

In general, obligations and payments were properly charged to the financial records in a timely and consistent manner. However, methods used to adjust the financial accounting system to reflect organizational changes and charges to specific contract modification accounts often do not leave an adequate audit trail to determine the actual sequence of events. As a result, some advanced contract payments were immediately expensed in the financial accounting system rather than recorded as prepaid expenses.

Invoices are not always properly voided after they are processed for payment or reviewed to ensure purchase order terms agree with information on the invoice. DFM did not always adhere to date stamping procedures. Additional controls are necessary to ensure that the institution/vendor file reflects the correct address and all disbursement reports document the payee's bank account numbers and the invoice numbers paid.

The results of this audit have been presented to the Foundation in a draft report. Management is currently examining the recommendations. We will report on resolution in our next semiannual report.

DINERS CLUB PROGRAM

In August 1983, GSA awarded a government-wide contract to Citibank, Inc., for Diners Club charge cards and centrally billed

accounts. Individual charge cards are issued, without credit checks, to federal employees identified as frequent travelers to pay for travel

expenses. Centrally billed accounts are generally used to purchase transportation tickets for employees not designated to receive individual charge cards.

Employees who are expected to make two or more trips per year are eligible for a charge card. Employees who apply for a card are required to complete a Diners Club application and sign an employee acknowledgment form as evidence that they have read and understood their rights and obligations related to using contractor-issued charge cards. Employees are liable for all billed charges unless cards are reported lost or stolen. The government is not liable for charges incurred on employees' charge cards, or liable for lost or stolen charge cards.

As of December 31, 1990, NSF had 533 employees enrolled in the Diners Club program. During the 2-month billing period (from November 9, 1990, through January 7, 1991), 704 transactions were processed for cardholders resulting in total charges of approximately \$153,000.

Our audit revealed that some employees used the Diners Club cards for personal purposes and others were delinquent in paying their bills. We

also found that NSF's procedure for purchasing transportation tickets through the centrally billed account for cardholders is inconsistent with the intent of the Federal Travel Regulations policy. Cardholders' transportation tickets are charged to NSF's centrally billed account rather than to individual charge card accounts. In addition, we found that the centrally billed account had not been reconciled since its implementation.

We recommended that:

- DFM issue a bulletin reminding NSF Diners Club cardholders of requirements for proper use and prompt payment.
- The Assistant Director for Administration review NSF's Diners Club Card Memorandum of Understanding and consider changing the Foundation's current practice of charging transportation costs for cardholders to NSF's centrally billed account.
- DFM reconcile NSF's centrally billed account monthly.

NSF management agreed with our recommendations.

NSF EMPLOYEE PARKING PERMIT SYSTEM

NSF's employee parking permit system was established to help offset the high cost of public parking near NSF offices. The system is available to all employees equally and does not use grade or position as a basis for awarding the limited number of parking permits. The system gives special consideration to NSF employees who are handicapped or in "key executive" positions.

Our review focused on the applications and parking permit allocation from October 1990 through March 1991. We reviewed all of the applications and verified all data pertaining to NSF employees as well as a selected sample of data for non-NSF applicants. In addition, we analyzed the financial data for the parking system for the past 5 years. We found that most errors on the applications involved (1) recording incorrect service computation dates (which affected points for ranking

applications), (2) miscalculating points for applicants, and (3) issuing permits to applicants who did not qualify according to the parking system's policy. To improve the parking system, our recommendations were aimed at increasing quality control and compliance with existing policy. We recommended:

- emphasizing the need for accuracy and the penalties for inaccuracy on the application form,
- correcting permits not in compliance with existing policy,
- improving screening procedures to manually eliminate identifiable errors,

- modifying the system to use an existing automated database for information retrieval, and
- adhering to the existing policy regarding the portion of the cost that the carpool should pay.

The Foundation management has agreed to implement these recommendations. The result should provide NSF employees a parking permit system that is fair and accurate and ensure that NSF does not incur a greater cost to support this system than its policy establishes. This review's findings support the continued use of NSF's parking permit system.

LOBBYING RESTRICTIONS CERTIFICATIONS

Congress requires federal agencies to report on lobbying restrictions semiannually. The reports contain a compilation of the information included in the disclosure reports received from grantees and contractors during the 6-month period ending on March 31 and September 30. Congress must receive these reports by May 31 and November 30 of each year.

We examined 205 (25 percent) of the grants, cooperative agreements, and contracts in which the initial obligations exceeded \$100,000. We found that organizations provided certification statements on lobbying restrictions for 203 of the 205 awards. After our review was completed, the Division of Grants and Contracts

(DGC) obtained the two missing statements. Our review disclosed that (1) DGC had established internal control procedures to ensure that certifications are submitted by the organizations prior to NSF making awards; (2) there were no alleged violations of disclosure forms reported from December 23, 1989, through September 30, 1990; and (3) the required disclosure information was reported semiannually to the Congress. We believe that NSF is complying with the intent of the legislation, and that agency procedures are generally adequate to ensure that certifications are obtained from grantees prior to making awards.

Improved Internal Controls

In addition to specific audits, Internal Audit efforts have also resulted in improvements to NSF's systems of internal controls for handling (1) principal investigators who have voluntarily excluded themselves or who have been debarred from receiving federal funding and (2) promotional materials received from commercial carriers.

NSF MUST ENSURE THAT IT CONDUCTS BUSINESS ONLY WITH RESPONSIBLE PERSONS: To protect the public interest, it is the federal government's policy to conduct business only with responsible persons. A grantee or contractor who lacks responsibility may be debarred from entering into any grant or contract with any agency of the federal government. In certain egregious circumstances, the agency may suspend the grantee or contractor from participation in government grants or contracts for the duration of the debarment proceeding. A grantee or contractor may also enter into a voluntary agreement with an agency to be excluded from participation in government grants or contracts.

GSA maintains and distributes a government-wide list of parties excluded from procurement and financial assistance programs. We discovered the Foundation does not routinely check every NSF grantee, principal investigator, or contractor to make sure they do not appear on GSA's list. In our view, this is not acceptable as a matter of policy, and it is contrary to NSF's clear legal obligations under the debarment regulations. Accordingly, we recommended that NSF promptly change this practice. The Foundation has agreed to develop an appropriate

review system. We will be monitoring the implementation of this system.

DISPOSITION OF PROMOTIONAL MATERIALS RECEIVED FROM COMMERCIAL CARRIERS: Federal travel regulations prohibit employees from keeping promotional materials, such as bonus flight tickets, reduced fare coupons, cash, merchandise, and other gifts received from commercial carriers during official travel. At the time of our review, we determined that the Foundation did not have procedures to accept promotional items from employees or to ensure that the items were properly controlled and redistributed for use to minimize overall government travel cost.

At our request, the Foundation agreed to establish policies and procedures, in accordance with federal government travel regulations, to control the receipt and dissemination of promotional materials. We also issued an Awareness Message to all NSF staff concerning the proper disposition of employee travel discounts and the use of frequent flyer benefits and premium class accommodations.

INVESTIGATIONS

Introduction

The Investigations Unit is the second operational component within the Office of Internal Audit and Investigations. It is responsible for investigating violations of criminal statutes as well as regulations involving NSF employees, grantees, contractors, and other

individuals conducting business with NSF. The results of these investigations are referred to federal, state, or local prosecutors for criminal or civil prosecution, or to NSF's Office of the Director to initiate administrative sanctions or penalties.

Summary of Investigative Activities

The Investigations Unit makes a preliminary assessment of the allegations it receives to determine if they should be investigated. Allegations that do not fall within OIG's investigative purview or which are too ambiguous to follow up effectively with our

limited resources are closed. Cases closed after a preliminary assessment may be reopened if additional information warrants such action. The following is a synopsis of our investigative activity.

Active Cases From Prior Reporting Periods	10
New Allegations Received	14
	<hr/>
Total Cases	24
Cases Closed After Preliminary Assessment	4
Cases Closed After Inquiry/Investigation	10
	<hr/>
Total Cases Closed	14
ACTIVE CASES	10

Referrals for Criminal Prosecution Pending From Previous Period	2
New Referrals	1
Total	<u>3</u>
Prosecutorial Declinations	1
Criminal Convictions	0
Total	<u>1</u>
REFERRALS PENDING	<u>2</u>
INVESTIGATIVE RECOVERIES	<u>\$24,222</u>
ADMINISTRATIVE ACTIONS	<u>4</u>

Summary of Significant Cases During This Reporting Period

Sexual Malfeasance

As described in our last report, our investigation of alleged sexual assaults, sexual harassment, and threats of professional and academic blackmail by a co-principal investigator funded by NSF revealed that no federal criminal statutes were violated. However, we determined that these actions constitute a serious deviation from accepted research practices. Because of the gravity of the abuses by the co-principal investigator, NSF proposed debarment of the individual for a 5-year period.

The individual has agreed to voluntarily exclude himself from being the recipient of financial assistance from any agency of the federal government for a 5-year period. (This case is discussed in more detail on page 34.)

The institution that employed the co-principal investigator has voluntarily agreed not to apply for an NSF grant for a 2-1/2 year period and has agreed to refund to NSF grant funds totaling \$7,390. In addition, the institution will sponsor a seminar focusing on appropriate faculty behavior in field research situations.

Forgery

In our last report, we described two cases involving the forgery and fraudulent use of NSF letterhead. NSF letters are routinely used to document and communicate grant awards and funding levels. In addition, NSF letters are used to communicate monetary obligations, which are due or payable to the Foundation or to third parties. Obviously, it is important that only authorized employees conducting official NSF business issue these letters.

FORGERY AND FRAUDULENT USE OF NSF LETTERHEAD: We investigated an allegation involving forgery and fraudulent use of NSF letterhead by an associate professor at a major university. The associate professor processed and submitted proposals for doctoral dissertation research grants to NSF. By producing and forging fraudulent letters, the individual shifted the blame for a lost doctoral dissertation grant proposal from the associate professor to NSF.

Diversion of Grant Funds

We received several allegations involving diversion and misuse of NSF grant funds. Deliberate diversion of grant funds from their intended use is a criminal violation and can be prosecuted under several statutes. We investigate all allegations involving diversion

In our last report, we noted that this case had been referred to the U.S. Attorney's Office in San Diego, California. The U.S. Attorney's Office declined to prosecute. Therefore, we pursued appropriate administrative action that resulted in the associate professor voluntarily agreeing not to apply for NSF grants for a 1-year period. NSF has agreed to take no further action against the associate professor. In addition, the associate professor has temporarily been relieved of all university duties except instructing, and he is currently receiving counseling, which is supervised by the university.

FORGERY OF NSF LETTERHEAD: The other forgery case involved a contractor's employee who forged a letter on NSF letterhead for use by his firm in a contract negotiation with National Aeronautics and Space Administration (NASA). We have assisted NASA's OIG investigation in this case. The subject of the investigation has agreed to plead guilty in federal court to a misdemeanor. A hearing is scheduled for May 1991.

and misuse of NSF grant funds. In cases where criminal prosecution is not appropriate we may recommend that NSF take administrative action to recover the funds or provide adequate controls to protect NSF grant funds in the future.

SBIR GRANT FUNDS DIVERTED: During an audit of a Small Business Innovation Research grant to a California company, our auditors discovered that approximately \$80,000 of grant funds had been diverted from support of scientific research and used to purchase publicly traded common stock. We referred this diversion of funds to the U.S. Attorney's Office in Los Angeles for prosecution. The U.S. Attorney declined to prosecute.

Because this diversion of funds can be fully recouped by termination of the grant award and resolution of questioned costs, we did not recommend additional sanctions. A more detailed discussion of the company's activities appears on page 15.

Conflicts of Interest

We investigated allegations that an NSF program officer supervised grants in which he had financial conflicts of interest. Conflicts of this sort give rise to possible violations of criminal statutes and NSF regulations. We also evaluated allegations that he had used official NSF travel for his personal benefit.

We found no evidence that the program officer abused official NSF travel. However, our

PHYSICS DEPARTMENT DEFALCATION: A university discovered that an accounting clerk in its physics department illegally obtained approximately \$30,000 in cash, of which \$11,108 was charged to NSF grants. The clerk obtained these funds by submitting falsified requests for reimbursement of expenses. The university terminated the clerk and the matter was turned over to local law enforcement authorities.

The university has reimbursed NSF a total of \$16,832, which included the misappropriated funds and indirect charges. In addition, the university has implemented new internal controls to protect against similar embezzlement schemes.

investigation revealed that the program officer had (1) substantial financial interest in two companies that benefited from NSF grants and (2) improperly participated in the management of these awards on two occasions. Finally, we uncovered significant systemic problems with the way NSF handles conflict-of-interest issues. (For further discussion of these allegations see page 35.)

OVERSIGHT ACTIVITIES

Introduction

The Office of Oversight focuses on the science-engineering-education-related aspects of NSF operations and programs. The office conducts and supervises compliance, operations, and performance audits as well as investigations of NSF's programs and operations. It handles all allegations of nonfinancial misconduct in science, engineering, and education and is beginning studies on the general problem of misconduct. It oversees the operations and technical management of the approximately 200 NSF programs, undertakes inspections, and performs special audits and studies.

Our ability to provide leadership and maintain high professional standards has recently been

recognized by the American Institute of Chemists. Dr. James J. Zwolenik, Assistant Inspector General for Oversight, will receive the first annual Ethics Award of the American Institute of Chemists, on May 31, 1991. The Institute will honor Dr. Zwolenik for leadership in developing objective guidelines, procedures, and regulations to deal with potential conflicts of interest and allegations of misconduct in government-funded research.

Dr. Zwolenik is a graduate of Case Western Reserve University and has doctoral degrees from both Yale University and the University of Cambridge, England, in physical chemistry.

Misconduct in Science and Engineering

Misconduct is defined as (1) fabrication, falsification, plagiarism, or other serious deviation from accepted practices in proposing, carrying out, or reporting results from research; (2) the material failure to comply with federal requirements for the protection of researchers, human subjects, or the public or for ensuring the welfare of laboratory animals; or (3) the failure to meet other material legal requirements governing research. (See 45 CFR 689.)

The number of misconduct allegations processed by OIG and its predecessor office has increased rapidly in the last few years. Most of the 18 cases closed in this reporting period, as in past reporting periods, were relatively minor cases for two reasons. First, the distribution of cases received is skewed in favor of minor cases. OIG processes and formally closes each case, no matter how small. Second, smaller cases are more quickly resolved and closed, especially when the caseload is rapidly increasing.

Summary Data on Misconduct Cases		
	FY 1991 First half	FY 1990 Last half
Active Cases From Prior Period	26	20
Received During Period	32	17
Closed Out During Period	18	11
In Process at End of Period	40	26

In the following sections, we will discuss (1) the various types of allegations received, (2) the handling of deferred cases by grantee institutions, and (3) the resolution of two illustrative misconduct cases.

Types of Allegations Received

OIG frequently receives requests for information about how it processes misconduct cases. We have recently attempted to classify our active and closed misconduct cases according to specific types of misconduct allegations. In

some cases, allegations were minor or unclassifiable. The following discusses the kinds of allegations most frequently encountered, in descending order of occurrence.

Plagiarism

We receive a large proportion of our cases from NSF program officers during their processing of grant proposals. For example, a reviewer may notice that a proposal does not acknowledge the source of passages taken from either a published book or paper or from a proposal to NSF or another federal or state agency. Program officers are required to forward such information to OIG for consideration as a case of possible misconduct.

Perhaps because so many cases come to OIG in this way, a large share of our allegations deal with plagiarism or with other misappropriation of intellectual property. Examples of such other

violations would be failing to cite prior relevant publications and using the research ideas of others without receiving permission or giving credit. Forty of 75 cases received from January 1, 1989, to March 31, 1991, were concerned with plagiarism or misappropriation of intellectual property. To date, only minor cases of this type have been closed. OIG resolved most of them by corresponding with the subject and receiving an apology and perhaps the correction of a proposal. None of these cases produced a more formal finding of misconduct, though in some cases the subject's institution criticized the individual and imposed remedial measures.

Fabrication and Falsification

Cases involving the fabrication or falsification of research data and specimens have received a great deal of attention in the media. Although allegations of this type occur under NSF awards, they are not especially common. Since the beginning of 1989, we have received seven

fabrication and falsification cases, closed four cases, and found misconduct in one case. In that one case, NSF negotiated an agreement that the subject would not be a principal investigator on any proposal submitted to NSF within the next 5 years.

Other Cases

The remaining cases have involved a wide variety of allegations. For example, several have involved false statements in proposals. One university official engaged in misconduct by compromising the review of a proposal under the Presidential Young Investigators program. Some cases have involved tampering with other

researchers' experiments or exploiting subordinates in research contexts. One of these cases led to an agreement with the subject that he could neither serve as one of the senior personnel on any award from an executive branch agency nor review NSF grant proposals for 5 years. (See page 34.)

Deferral Process

NSF policy is that research institutions should be responsible, to the greatest extent possible, for preventing and detecting misconduct and for

dealing with any allegations of misconduct that arise. As a result, NSF regulations state that institutions are expected to initiate promptly

inquiries into any suspected or alleged misconduct and to conduct a subsequent investigation if warranted. In addition, our practice is to refer any substantive misconduct allegations to the institution whenever practicable. NSF's policy has several advantages: (1) it recognizes the role of the professional community in maintaining integrity in research, (2) individual institutions are encouraged to think about and develop their own standards and practices, and (3) allegations of misconduct can be resolved to the greatest extent practicable by peers at the local level.

OIG's policy of using deferral in the first instance recognizes both the institution's commitment to maintain integrity in research and the independence and autonomy society accords the research community. However, it also places a critical obligation on an institution that requests and accepts deferral. The institution is obliged to conduct an investigation that OIG can recognize as accurate and complete. OIG must also be able to conclude that fair and reasonable procedures in accord with due process were followed. After a careful review, we must be able to recommend adoption, in whole or in part, of the investigative report from the institution that accepted deferral or we must initiate our own investigation. We are fully prepared to conduct our own investigations when allegations are not adequately resolved by the deferral process.

FISCAL YEAR 1989: Since our inception, we have routinely deferred misconduct cases to the institution that employs the subject of the allegation. For example, three cases were closed in fiscal year 1989, and all of them involved investigations performed by the institution. One of these was a case of data misrepresentation,

which led to an agreement between the subject and NSF that he would not be a principal investigator on any proposal submitted to NSF for 5 years. (See page 30.) The institution did not impose any sanctions because the subject resigned.

The second case also led to a finding of misconduct. The subject was accused of compromising the review of an application under the Presidential Young Investigators program. The institution placed a letter of reprimand in the subject's file.

The third case involved an individual making a false statement in a Presidential Young Investigators application. The institution did not find any misconduct, but it still withdrew the application.

FISCAL YEAR 1990: We closed one case that involved an investigation performed by the institution. The subject was accused of plagiarism. There was no finding of misconduct, but the institution imposed remedial actions. A similar case closed in fiscal year 1990 involved an inquiry by the institution, but not an investigation. It also involved plagiarism. Again, no misconduct was found, but the subject was judged not to understand common academic practice in the use of direct quotations. Because the subject had left the institution, no further action was taken.

FISCAL YEAR 1991: During the first half of fiscal year 1991, four cases were closed that involved an inquiry or an investigation by an institution. Two cases involved inquiries, and the other two involved investigations. These cases are described on the following pages.

Defective Inquiry

In one of these cases, we reviewed an inquiry that an institution had performed on its own initiative. A faculty member was accused of plagiarism, and the inquiry found that some degree of plagiarism had been committed and that the ethical violation was not trivial. Despite the inquiry committee's findings and the mandate it had been given, it failed to

recommend an investigation. The subject received only a minor remedial penalty. We did not reopen this case because it was an old issue and its connection with NSF funding was remote. We did, however, send the institution an analysis and criticism of its inquiry and its resolution of the case.

Inquiry Into Allegations of Plagiarism

The second inquiry involved a case that was handled jointly by our office and the Public Health Service's Office of Scientific Integrity. The subject was accused of plagiarism in writing grant proposals that copied from the complainant's proposals without the complainant's consent. The institution's inquiry committee found that, because of the close collaboration of the complainant and the subject in the past, the proposals involved shared intellectual property. Hence, the inquiry committee did not find misconduct, but it did

find that the subject had breached normal research decorum in submitting proposals without the complainant's consent. The subject received a critical letter from the university administration and was admonished to exercise extreme care in future scientific relationships and to seek consultation where necessary with senior academicians. We found that the university's action was a satisfactory resolution of the case, and we accepted the inquiry report.

Southwest University Resolves Dispute Over Intellectual Property

We received notification that an institution was expanding its inquiry into an investigation in an effort to fully address allegations of academic dishonesty. An NSF-supported faculty member (in the biology department) made allegations against a senior research scientist who had been employed by the faculty member's research group. The alleged dishonesty involved (1) submitting an article without the professor's knowledge or permission; (2) making false claims in the article regarding the research scientist's contributions to the development of the techniques reported; and (3) compromising the work done by others as well as the competitive position of the professor's research

program by publishing the techniques and results.

Our review of the final investigative report found that the university investigative committee had proceeded conscientiously with its task. The committee did not find any evidence of academic dishonesty by the senior research scientist and therefore recommended no punitive action. The committee, however, did find probable errors in judgment, communication, mutual trust, and professional courtesy by both parties. It noted that these individuals are talented scientists that have made and could continue to make major contributions.

Further, the investigative committee suggested that each party send letters to appropriate journal editors explicitly acknowledging certain contributions, short of co-authorship, by the other in two previously published papers.

We accepted the findings of the university's investigative report and closed this case.

Major Private Eastern Research Institution Investigates Alleged Fabrication of Data

In February 1990, a university informed us that its inquiry supported a formal investigation into allegations of intentional data modification by a postdoctoral associate supported on an NSF award for materials research. Specifically, it was alleged that the postdoctoral associate improperly and intentionally adjusted his research apparatus to yield false results of higher value than any previously recorded by anyone in his field of research.

In July 1990, we received a copy of the 2-page final investigative report by the Dean of the University Faculty. On the basis of the faculty investigative committee's report, the Dean of Faculty concluded that the evidence did not support a finding of academic misconduct. We did not believe the 2-page report contained sufficient information to enable us to assess the accuracy or completeness of the investigation or whether the investigating entity followed reasonable procedures. We obtained copies of the inquiry report, the full report of the faculty investigative committee, and other reports prepared during the investigation.

Our review of these reports indicated it was necessary for us to evaluate further: (1) whether the admissions initially obtained from the subject were obtained in a coercive manner as alleged by the subject; (2) whether the University was correct in reversing its faculty investigative committee's finding of misconduct; (3) why the investigative committee did not explain the circumstantial evidence that it found to be convincing; and (4) why the Dean of University Faculty's report addresses only two of the three incidents of alleged data tampering.

During the review reported above, we learned that the subject of the allegation had left the university and returned to his country of origin. Under these circumstances and considering our limited resources, we have closed this case with a letter to the institution raising questions and expressing serious concerns about its investigation.

Tentative Conclusions

From these closed cases, as well as active cases that involve an inquiry or an investigation performed by a research institution, we have reached a number of tentative conclusions.

■ Definitions of research misconduct in institutional regulations are not always the same as the Public Health Service's or

NSF's definitions. The differences could lead to problems with some cases referred to these institutions.

■ Reports of inquiries or investigations performed by institutions are sometimes too brief, poorly reasoned, or otherwise uninformative. This situation may exist

because personnel serving on inquiry and investigative committees are inexperienced in this kind of activity.

- Institutions properly rely on scientific expertise when conducting inquiries and investigations. However, legal requirements affect every stage of the institutional proceeding, and we believe that institutional inquiries and investigations should always have the assistance of legal counsel.
- Committees of inquiry or investigation sometimes run into unnecessary difficulties trying to assess whether the subject intended to do something wrong. In deciding what sanction if any to impose it often is

necessary to determine whether the subject acted intentionally. These are situations where legal advice is especially important.

- We note from our limited experience with deferrals that some institutions performing preliminary inquiries may be tempted to find the subject guilty of "carelessness" rather than misconduct. This is a compromise that avoids the unpleasantness and publicity that might result from a full investigation and a possible formal finding of misconduct. Sometimes a token penalty of a remedial character is imposed in place of a formal sanction.

Settlement Reached in Misconduct Case

RESEARCHER: In fiscal year 1990, we recommended the debarment of a researcher from receiving grant funds from the federal government for a 3-year period. (OIG Semiannual Report to the Congress, Number 3, pages 26 and 27.) The subject was a biological scientist who directed the research of graduate and undergraduate students at a field site in a foreign country with funding from NSF's Research Experiences for Undergraduates program. Our investigative report explains that he was accused of sexual malfeasance that was an integral part of his performance as a researcher and research mentor. NSF's Office of the Director accepted our recommendation of debarment, but extended the proposed term of debarment from 3 to 5 years.

Exercising his rights under federal debarment and suspension regulations, the subject waived his right to an administrative hearing. In place of debarment, he elected to exclude himself voluntarily from submitting research proposals to the government. Specifically, he will not be a

principal investigator or co-principal investigator and will not be among the senior, key, or supervisory personnel on a grant, contract, or cooperative agreement for science and engineering research or education with any agency of the Executive Branch for 5 years after the date of the notice of proposed debarment. During this time period, he will not serve as a reviewer on any NSF grant proposal. OIG and NSF's Office of the Director have accepted this settlement and have agreed to take no further action against the subject in this matter.

INSTITUTION: The grant under which the field research was done was awarded to a nonprofit research corporation. We determined that this institution had some prior experience with the subject that made it inappropriate to place him in a position of exclusive authority at the research site. We raised our concerns with the institution and negotiated a settlement that has been accepted by NSF's Office of the Director. The institution will not submit grant proposals to NSF for 2-1/2 years and will return

\$7,390 to the government. In addition, at the institution's expense it will conduct a seminar

for its employees and others on appropriate faculty behavior in a field program.

A Scholarly Dispute But Not Misconduct

Recipients of an NSF grant to study consumer bankruptcy published the results of their NSF-sponsored research in a book. Another scholar in the same field of research wrote to OIG challenging the originality and the validity of the conclusions reported in the book. In particular, he alleged that the authors committed misconduct by (1) improperly claiming originality while failing to adequately acknowledge work previously published by others and (2) failing to properly address other previously published results that contradict the authors' conclusions. After careful review of the allegations, which OIG insisted the complainant refine and state precisely, we

concluded that the allegations were scholarly disagreements about the evaluation and meaning of current and past work. Disputes of this type are well suited to the free and open airing of opposing views within the scientific community at interest. This "critical" process normally occurs in scholarly presentations and in journal articles. In this case, at least two extensive and highly critical reviews of the book have been published in law reviews. OIG concluded that this case involved a substantive dispute that the professional community was able to handle and was handling. As such, it was judged to fall outside the range of research misconduct and was closed without further action.

Conflict-of-Interest Reviews

Program Officer's Financial Conflicts of Interest

We received an allegation that a program officer had conflicts of interest on two grants involving commercial publishers. One grant was awarded to a publisher that employed the program officer's wife as a vice president. The second grant was awarded to a publisher which had employed the program officer as a vice president before he worked at NSF.

In April 1988, the program officer received a conditional waiver (under 18 USC 208(b)), which allowed him to participate in both projects, under certain circumstances. We found that the program officer exceeded the terms of the waiver: (1) by continuing to act as the program officer after his wife became directly involved with one of the grants and (2) by recommending an amendment to the second

grant that inured to the benefit of his former employer.

The actions that exceeded the waiver were undertaken only after supervisors had been notified and did not appear to have been motivated by personal gain. In addition, we are not aware of any evidence indicating that the Foundation's funding decisions would have been materially affected if the program officer had not exceeded the terms of the waiver. We, therefore, recommended that the program officer not be formally censured, but he was counseled and admonished about his obligation to conform to conflict-of-interest restrictions. The program

officer also will no longer have any responsibilities concerning these grants.

Our review uncovered systemic problems. It was evident that adequate, well-organized records on conflicts of interest were maintained neither in appropriate grant and program files nor in the Office of General Counsel. The poor condition of these records may be a significant management deficiency. Several breakdowns in program management decisions and inadequate conflict-of-interest advice allowed: (1) the waiver to be issued without consideration of essential facts and (2) the program officer to continue to work on the grants after exceeding the terms of the waiver.

Conflict-of-Interest Checks

NSF augments its permanent staff of professional and technical employees by temporarily appointing individuals on leave of absence from research and educational institutions. Various programs, such as Visiting Scientist, Engineer and Educator; Intergovernmental Personnel Act; and Volunteer, allow NSF to hire visiting scientists, engineers, and educators who are current in educational, scientific, engineering, or managerial matters.

Since our last semiannual report, we have continued our service to NSF management by reviewing 100 employees, 19 Intergovernmental Personnel Act assignees, and 5 volunteers, GS-12 and above, for possible conflict-of-interest problems related to NSF proposals and awards. These individuals entered or left the Foundation between August 1, 1990, and February 28, 1991, and are subject to NSF's current employee and post-employment, conflict-of-interest regulations. (Our memorandum reports are listed on page 55.)

Our conflict-of-interest reviews occasionally identify the need for further inquiries. During the reporting period, 11 conflict-of-interest inquiries were completed. No investigations were required. Most of the inquiries concerned instances where incoming employees or Intergovernmental Personnel Act assignees were not properly removed from their pending research proposals or awards. If the hiring office does not properly complete agency-required forms and name a substitute principal investigator, the new employee may technically still be an awardee or proposer, and therefore may be in violation of current employee restrictions under 18 USC 203. In the resolution of all 11 conflict-of-interest questions, the cognizant assistant director and division director have taken steps to avoid similar problems in the future.

A survey of our total 124 conflict-of-interest reviews indicates some improvement by program staff in avoiding problems in the area of principal investigator/employee conflicts of

interest. Since October 1988, the use of Form 1255, "Incoming Employee or IPA (Candidate) Potential Conflicts-of-Interests Form," by hiring offices has helped. NSF hiring offices are required to complete the form before a new professional can join NSF. The hiring office's conflicts official must certify that (1) new staff

are no longer principal investigators on any proposal they have submitted to or award they have received from the Foundation in the past and (2) a substitute principal investigator has assumed current responsibility for the scientific research.

Compliance With NSF Bulletin 88-36

In October 1988, NSF issued additional procedures for alleviating conflict-of-interest problems associated with all categories of incoming NSF staff as well as current and leaving employees.

This bulletin requires that all NSF offices create an employee record in the principal investigator database for all current employees at grade GS-12 and above. The employee record includes a "flag" that indicates the person is an NSF employee, provides an effective date of employment, and states the office where the person is employed. This information guards against any program accepting or processing a proposal from a current employee. The flag also precludes an employee from gaining access to

information about the identity of reviewers involved in any peer review of his or her past research proposals. This prohibited access preserves the anonymity NSF promises to all reviewers of proposals.

On a regular basis, we check the system to ensure that the name of every current employee is in the principal investigator system. In the past year, we have found almost a 100-percent compliance rate. In those few instances of noncompliance, we reported the matter to the hiring office through the cognizant supervisory chain of assistant director and division director. Because NSF has made progress in this area and the problems found were minor, we plan only selective checks in the future.

Proposal and Award Reviews

Indepth Review of Proposals and Awards in Science Education Program Reveals Problems

To monitor NSF's compliance with its rules for handling proposals and awards, the Oversight Office, on a continuing basis, selects and reviews proposals that have been awarded,

declined, withdrawn, or returned as inappropriate. Our most recent compliance review is based on 39 out of 45 actions during the first and second quarter of fiscal year 1990

in the Instructional Materials Development Program and 7 out of 12 actions in the Informal Science Education Program of the Division of Materials Development, Research and Informal Science Education, Directorate for Science and Engineering Education (now Directorate for Education and Human Resources).

The review discovered conflict-of-interest problems on the part of program managers and reviewers, inadequate recording and analysis of peer reviews, missing file documentation, and inadequate file layout.

The conflict-of-interest problems included: (1) a program manager accepted lodging at the home of the president of a grantee organization; (2) an individual associated with a proposal as an advisor was allowed to review that proposal;

and (3) the conflict-of-interest situation described in this report under the heading, "Program Officer's Financial Conflicts of Interests." (See page 35.)

In our review, we outlined the following options to raise the level of compliance with NSF's rules governing proposal processing: periodic review of the rules to ensure their adequacy; frequent revision and reissuance of manuals when necessary to facilitate their use; packaging the rules in a more easily usable form, such as checklists and "model files"; networking among administrative officers to exchange information; training; and linking serious conflict-of-interest problems to the responsible employee's performance evaluation.

LEGAL ISSUES

Introduction

The Counsel reports directly to the IG and provides legal advice on all OIG activities, including investigations, audits, and oversight of NSF's functions and programs. Under section 4(a)(2) of the Inspector General Act, the Counsel is responsible for making recommendations in OIG's Semiannual Report to the Congress on legislation and regulations that affect NSF-financed programs.

During this reporting period, OIG attorneys supported many of the activities that are described in other sections in this report. OIG

attorneys, as part of their duties, have focused on OIG's oversight responsibilities for NSF's legal activities. In this capacity, the Counsel to the IG has commented upon actions taken by the Office of General Counsel and other organizations within NSF in various legal fields, such as conflict-of-interest, financial, and regulatory matters. Our relationship with the General Counsel and his staff remains wholly cordial and effective. Throughout this reporting period our legal recommendations have been generally accepted by the Foundation.

Material Weakness Concerning Conflicts

In order to ensure that scientific advice is provided within the Foundation by scientists who are leaders in their field, the Foundation encourages outside scientists to "rotate"—that is, to work for NSF for a relatively short time period, usually 1 or 2 years, and then return to their previous positions. We believe that this practice is sound and tailored to the needs of NSF. However, because of the large number of rotating employees, a substantial portion of the NSF workforce is largely unfamiliar with the laws and regulations that apply specifically to governmental employees. This is of particular concern in the conflict-of-interest area.

The National Science Board is comprised of 24 presidential appointees who devote a significant amount of time to help establish science policy for the Foundation. Board members are selected because of their distinguished service in science, medicine, engineering, agriculture, education, research management, public affairs, or industry. These prominent scientists are also largely unfamiliar with the conflict-of-interest laws that apply to them because of their part-time government service.

The attorney principally responsible for ethics matters at the Foundation left in April 1990, and the agency does not now have a senior conflicts

attorney who has the breadth of experience necessary to resolve the many conflicts-related issues that arise from NSF's extensive reliance on part-time and rotating employees. We raised our concerns with the Foundation's Acting Director and the General Counsel, and NSF's Office of General Counsel is hiring an expert in this field of law.

In addition, during this and prior reporting periods, we have informally advised the Director and General Counsel about systemic concerns we have concerning the Foundation's conflicts system. The Office of General Counsel told us that it had initiated its own review, had

identified weaknesses, and had begun to develop a program to correct deficiencies.

In December, the Foundation reported that, based in part on the loss of key employees, its process for conflict-of-interest reviews is a "material weakness" under the terms of the Federal Managers' Financial Integrity Act. We agree with this report. We have obtained and reviewed the Office of General Counsel's plan for corrective action and we believe it addresses well our concerns. If the Office of General Counsel effectively implements its plan, the potential for violations of conflict-of-interest rules will be greatly reduced.

Revisions To Misconduct Regulations

In this reporting period, the Foundation, acting on our recommendation, proposed an amendment to its regulation on misconduct in science and engineering. The amendment was coordinated with the President's Office of Science and Technology Policy (OSTP) and the Public Health Service (PHS). The regulatory amendment, published at 56 Fed. Reg. 5789 (February 13, 1991), proposes the following:

- makes clear that misconduct is proscribed under any NSF activity, whether related to research or education;
- expressly defines misconduct to include retaliation against good faith whistleblowers;
- makes clear that a formal investigation must be initiated whenever an allegation of misconduct is determined to have substance;

- makes explicit that OIG is responsible for misconduct inquiries and investigations, and that OIG attorneys, rather than NSF's Office of General Counsel, are responsible for all related legal issues; and
- clarifies how NSF's debarment and suspension procedures are followed in a misconduct case.

The period for public comment ended on March 15, 1991. The Foundation is now reviewing the letters that it received from four universities and three associations. After reviewing this material and coordinating with OSTP and PHS, NSF will publish its final regulatory amendments.

NSF Needs To Ensure That It Is Advised of Substantial Problems Known to Its Grantees

The Foundation does not clearly and explicitly require its grantees to advise it when substantial problems become known to them. This situation has sometimes led to the following problems:

- Grantees do not advise NSF that they have knowledge of embezzlement involving NSF funds.
- Grantees do not notify NSF about an allegation of misconduct in science that they conclude has substance and requires an investigation.
- Institution officials do not notify NSF that a scientist employed by the institution has not used NSF funds according to governmental cost and accounting principles.

In the past year, we have handled significant cases in each of these areas. Accordingly, we recommend that the Foundation amend the standard terms and conditions of its grants to explicitly require grantees to advise the Foundation when they become aware of substantial problems. In our view, the Foundation should also adopt language in its grant conditions advising grantees that the agency, when evaluating possible remedial action, will consider whether grantees had informed the Foundation about serious problems.

NSF Needs To Develop Appropriate Certifications for Grant Proposals and Financial and Scientific Progress Reports

NSF requires grant applicants to sign their grant proposals, but the proposal form does not clearly explain all purposes for the signature requirement. NSF also requires financial and scientific progress reports for its grantees, but does not require the grantee to sign these reports.

We believe that appropriate certifications should be developed in which the signatory is advised fully about what he or she is certifying by signing the form. All NSF grant applications

and progress reports should require these certifications. In particular (as is typical for governmental forms of this type, including the analogous forms used by the National Institutes of Health), signatories should be specifically advised that providing false information or a false claim can be a violation of criminal law. Failure to explain clearly the purpose of a signature requirement may cause grantees to err inadvertently and, in a case of outright fraud, may significantly interfere with our ability to initiate appropriate action.

Summary of Other Legal Issues

PROGRAM FRAUD CIVIL REMEDIES ACT: In our second semiannual report, we advised Congress that the Foundation is not covered by the Program Fraud Civil Remedies Act. We then stated that this could well hamper our ability to take appropriate action in cases of possible fraud. One such case arose in this reporting period. In that matter, a grantee invested approximately \$80,000 in the stock market instead of using the NSF funds in support of scientific research. Although we have recommended that all funds be returned to the Foundation, we have not been able to seek double damages and related penalties under the terms of the Program Fraud Act. (See page 15.)

A related problem arose in the context of one of our internal audits. As part of our auditing requirements, we are now required to audit the Foundation's compliance with the Lobbying Act annually. (See page 22.) Under the Lobbying Act, we are also expected to prosecute any violations we uncover under the terms of the Program Fraud Act. We will not be able to prosecute because the Program Fraud Act does not apply to NSF.

ROLE OF OIG ATTORNEYS IN DEBARMENT CASES: In this reporting period, we worked out an acceptable arrangement with the Office of General Counsel concerning various legal responsibilities for debarment cases. Under this arrangement, OIG

attorneys will be responsible for legal issues concerned with the investigation and prosecution of debarment cases, and Office of General Counsel attorneys will be responsible for legal issues concerned with the initiation of a debarment complaint, adjudicatory hearings, and ultimate resolution of a debarment action.

BRIEFING THE NATIONAL SCIENCE BOARD ON CONFLICTS: As part of our ongoing effort to heighten awareness of conflicts concerns, the Counsel to the Inspector General briefed the members of the National Science Board on conflict-of-interest rules that apply specifically to them. The Board also heard presentations from the Office of Government Ethics, the Public Integrity Section of the Justice Department, and NSF's General Counsel.

EMPLOYEE RESPONSIBILITIES CONCERNING OIG: In this reporting period, the Foundation acted on our recommendation to amend its internal regulations to require all employees to: (1) promptly report to OIG all allegations of misconduct, fraud, waste, abuse, or corruption and (2) fully and promptly cooperate with OIG requests, including providing records, interviews, and briefings.

HANDLING OF UNUSABLE PEER REVIEWS UNDER THE PRIVACY ACT: The Foundation's general policy is to provide anonymous verbatim copies of peer reviews to all proposers. There has been considerable

diversity among the Foundation's Directorates and Divisions on how to handle reviews, or parts of reviews, that were not considered because either the reviewer had a conflict of interest regarding the proposal or the review contained inappropriate remarks. When the Foundation was reviewing this situation, OIG expressed its strong objection to any alternative that involved the destruction or return to the reviewer of any conflict-of-interest or inappropriate review. The Foundation agreed with our view. We also worked with the Office of General Counsel to advise the Foundation of its legal obligations and the rights of proposers under the Privacy and Freedom of Information Acts.

DEBARMENT AND SUSPENSION REGULATION FOR PROCUREMENTS: The Foundation, which works mostly through grants, has a regulation adopting debarment and suspension procedures for those. However, although the Foundation does issue significant contracts, it has no regulation adopting debarment and suspension procedures for contracts. The Federal Acquisition Regulation expressly requires NSF to promulgate such a regulation. In our opinion, the absence of such a regulation could severely impair the Foundation's ability to debar or suspend a contractor. Accordingly, we recommended that the Foundation promptly enact the appropriate regulation, and it has agreed to do so.

SIGNIFICANT AUDIT RECOMMENDATIONS FROM PREVIOUS SEMIANNUAL REPORTS

We are responsible for reporting to Congress and following up on the resolution of audit recommendations. From October 1, 1990, to March 31, 1991, no reports classified as significant in prior semiannual reports have been resolved.

REPORTS WITH OUTSTANDING MANAGEMENT DECISIONS

No management decisions have been made for the following 43 reports. The first 40 reports listed have questioned costs. The remaining 3 reports have compliance recommendations that have not been resolved. DGC is tasked with resolving recommendations in external audit reports. During this reporting period, DGC resolved 25 of the 65 reports with questioned costs that were over 6 months old. They also resolved 13 of the 16 reports with compliance findings which were unresolved at the beginning of the period. Progress has been made in the resolution process, but continued attention must be given to all unresolved reports. When a report is more than 1 year old, the resolution process becomes more difficult. OIG and DGC will continue to work together to improve audit resolution.

Audit Number	Title	Date Report Issued
Reports with questioned costs:		
89-1152	Sonoscan, Inc.	05/18/89
89-1206	Atlanta Thoughtworks One	07/11/89
89-1207	Center for Advance Study in the Behavioral Sciences	07/11/89
89-1223	KMS Fusion, Inc.	08/25/89
90-1034	Slotta Engineering Assoc., Inc.	10/05/89
90-1041	Council of Chief State School Officers	10/13/89
90-1063	Consad Research Corp.	10/31/89
90-1125	Englekirk & Hart Consulting Engineers, Inc.	12/18/89
90-1129	Santa Fe Institute	12/27/89
90-1131	Optivision, Inc.	01/04/90
90-1136	U.S. Automation	01/04/90
90-1139	Cyclotomics, Inc.	01/12/90
90-1181	The Exploratorium	02/21/90
90-1182	Technical Education Research Center	02/26/90
90-1184	Building Systems Development	02/28/90
90-1190	Verax Corporation	03/23/90
90-1193	DNA Plant Technology Oakland	04/03/90
90-1195	Academy of Natural Sciences of Philadelphia	04/06/90
90-1217	ITT Antarctic Services, Inc.	05/04/90
90-1226	Women's Action Alliance	05/24/90

Audit Number	Title	Date Report Issued
90-1230	New York Hall of Science	05/31/90
90-1234	Lake Shore Cryotronics	06/20/90
90-1236	American Society of Mechanical Engineers	06/21/90
90-1240	Excel Technology, Inc.	06/21/90
90-1241	COMCO	06/21/90
90-1247	Artificial Intelligence Research Institute	07/13/90
90-1250	INRAD, Inc.	08/14/90
90-1254	Discovery Learning, Inc.	08/09/90
90-1278	Friends of Fermilab	08/27/90
90-1282	Kestrel Institute	08/27/90
90-1307	California Academy of Sciences	08/29/90
90-1308	S.E. Consortium for Minorities in Engineering	08/30/90
90-1316	Houston Museum of Natural Science	08/31/90
90-1317	Recording for the Blind, Inc.	08/31/90
90-1320	Aeon Systems	09/21/90
90-1323	Earthquake Engineering Research Institute	09/24/90
90-1324	American Research Corporation of Virginia	09/28/90
90-1325	Pacific Science Center Foundation	09/24/90
90-1326	San Diego Society of Natural History	09/21/90
90-1327	Westover Consultants, Inc.	09/24/90

Reports with only compliance recommendations:

90-1303	ITT Antarctic Services, Inc.	08/28/90
90-1306	Three Rivers Educational Coop.	08/29/90
90-1315	Scholastic, Inc.	09/07/90

"Nonprofit Fails To Correct Deficiencies"

NSF awarded two grants for an aggregate \$779,768 to a nonprofit institution, located in the southeast, to increase the number of minority students who qualify for and complete the study of engineering. In 1988, NSF conducted an interim audit on the first of the two grants. We questioned \$63,625 in costs. During negotiations, the grantee assured NSF that it had resolved problems disclosed by the audit.

OIG conducted a second audit and questioned \$162,142. This amount is comprised of \$63,625 from the original audit and an additional \$98,517 of newly questioned costs. Once again

the costs were questioned because of unsupported costs, costs not in agreement with the grantee's records, and costs charged to the incorrect grant.

After an initial request from the grantee for additional time to respond, the grantee responded to NSF's detailed questions. The response, however, was misplaced in the NSF mailroom. NSF requested and has received an additional copy of that response. The program officer is now reviewing the documentation to make a determination on an equity argument. (Semiannual Report No. 3, page 12.)

"Corporation Does Not Retain Documentation for Grant Expenditures"

NSF awarded a \$340,088 grant to a nonprofit corporation, which provides innovative learning experiences and opportunities for youth and adults. We questioned \$286,095 in costs, which resulted from inadequate documentation for expenditures. In addition, the grantee did not (1) segregate direct and indirect costs in the accounting records, (2) keep records on the amount of interest earned on NSF funds or

refund or credit NSF for any interest, and (3) have any written accounting procedures. NSF has contacted the grantee and requested additional documentation. During subsequent followup meetings with the grantee, NSF was told that the grantee had moved and lost the audit report. Another copy of the report has recently been provided to the grantee. (Semiannual Report No. 3, page 12.)

"Museum Improperly Enters Into Contracts and Consulting Agreements"

NSF awarded a \$1,627,901 grant to a natural science museum to produce a series of science curricula designed to make science more accessible to elementary school children and their teachers.

The museum had questioned costs resulting from (1) incorrect allocation of an individual's salary and fringe benefit costs, (2) charging unallowable expenses to the grant, (3) incorrectly charging indirect costs as direct costs, and (4) awarding contracts and consulting

agreements in violation of federal conflict-of-interest rules. We questioned \$249,802 in costs.

NSF has contacted the grantee about the questioned costs, and the grantee provided an extensive package for review. After review of the documentation, NSF requested additional information. The grantee was given until April 5, 1991, to respond to the latest questions. (Semiannual Report No. 3, page 13.)

"New York Museum Claims Exceed Documented Support"

A science museum in New York had NSF grants totaling \$913,713. The museum wanted to improve the effectiveness of science by developing two exhibits; collaborating on projects with schools; and developing a program to encourage women, minorities, and the physically impaired to enter careers in science and mathematics.

The audit identified \$370,958 in questioned costs, which resulted from (1) costs claimed

twice, (2) lack of cost sharing, (3) indirect costs claimed in excess of allowed expenditures, (4) salaries and wages that did not have after-the-fact activity reports, and (5) costs charged that lacked supporting documentation.

NSF has requested additional information and has contacted the grantee to explain the need for the requested data. Additional information was requested on March 29, 1991. (Semiannual Report No. 3, page 14.)

"Fringe Benefits Claimed at Northeastern Nonprofit Exceeded Actual Costs"

A nonprofit natural science corporation, located in the northeastern United States, had 36 awards valued at \$4,775,307. Claimed costs under these 36 awards were \$3,866,845.

Our audit questioned \$98,706 in costs. The majority of the costs were questioned because the actual fringe benefit costs were less than those claimed on the grants.

NSF met with grantee representatives and received initial documentation supporting cost offsets. NSF asked the grantee questions about the information presented and requested additional information. DGC is currently reviewing the additional information. (Semiannual Report No. 3, page 14.)

"Research Center Improperly Handled Interest Income"

NSF awarded grants to a private nonprofit research center that develops computer software for educational purposes. Our audit reviewed seven grants with an aggregate budget in excess of \$8 million awarded over a 4-year period. Some of these grants allowed the center to

generate income from activities undertaken in performance of the award.

We found that the research center did not report income as required and withdrew federal funds before they were needed to meet program

expenditures. In addition, federal funds were not deposited in interest-bearing accounts as required by an OMB circular. Failure by the grantee to comply with interest income and drawdown requirements of the grant award cost the federal government more than \$17,000 in interest income and placed an additional \$133,000 at risk.

In August 1990, NSF received a check in the amount of \$537 from the grantee. The grantee also provided a 16-page explanation on why it believes \$537 should satisfy questioned costs. The response stated that project income has been spent for the intended purposes under the grant. Verification and final resolution are underway. (Semiannual Report No. 2, page 6.)

"Inadequate Documentation to Support Matching Funds Agreement"

NSF awarded two "Phase II" grants under its Small Business Innovative Research program to a privately held corporation. The corporation used the grant funds to develop an efficient process to produce various kinds of cells for medicine and research.

Documentation indicated that NSF was interested in offering a grant of about \$200,000, with the condition that the corporation finance the same amount from its own resources.

The corporation has not provided significant support for the project from its own funds and the grantee's controller indicated he was unaware of any agreement for cofunding.

DGC received and reviewed one package of information from the grantee. As a result of their review they have requested additional information with a deadline date of April 15, 1991. (Semiannual Report No. 2, page 7.)

"Grantee's Claims Not Substantiated"

NSF awarded three grants for an aggregate amount of \$375,094 to a commercial corporation in the building industry specializing in techniques for mitigating the effects of earthquakes.

The audit disclosed that 62 percent of the federal funds withdrawn had not been spent for purposes specified in the grant agreements. The corporation also had significant problems with internal control and compliance requirements,

which may have contributed to the company's excessive drawdowns.

Both of the required final reports have been provided to NSF; the most recent arrived in the last few weeks. The latest of the reports is currently being reviewed by the program office. Final resolution by NSF is expected during the third quarter of FY 1991. (Semiannual Report No. 2, page 8.)

"Documentation of Small Business Expenses Lacking"

NSF awarded a \$188,254 grant to a commercial corporation to develop and construct a new machine tool to make steel wire used for reinforcing concrete.

The corporation did not have adequate documentation to support its expenditures under the grant. Auditors were not able to find a general ledger, trial balance, timesheets, or job ledgers; could not reconcile the grantee's

financial statements; and found the grantee's filing system was inadequate.

Resolution of the report was delayed because of an initial refusal by the grantee's accountant to release documents. The company provided its final report, dated February 1991, for NSF review. Review of the report for acceptability and final resolution is underway. (Semiannual Report No. 2, page 9.)

"Inappropriate and Unsupported Payroll Cost Questioned"

NSF awarded two grants for an aggregate \$406,092 to a commercial corporation. The grants were in support of research concerned with noise levels on various radio bandwidths.

The corporation had questionable costs resulting from claims for funds in excess of expenditures and salaries for individuals who did not maintain approved timecards and who had not been included in the original projects' budget.

Completing the resolution has been delayed because of (1) a change in the company's ownership and (2) difficulties in establishing contacts for negotiation and resolution of the audit. NSF has received an initial response from the company, but has requested additional information to more fully explain the company's assertions. (Semiannual Report No. 2, page 9.)

AGENCY REFUSALS TO PROVIDE INFORMATION OR ASSISTANCE

During this reporting period, there were no reports made to the National Science Board of instances where information or assistance, requested under section 5(a)(5) of the Inspector General Act of 1978, as amended, was unreasonably refused or not provided.

SIGNIFICANT MANAGEMENT DECISIONS WHICH WERE REVISED

No significant management decisions were revised during this reporting period.

INSPECTOR GENERAL'S DISAGREEMENT WITH SIGNIFICANT MANAGEMENT DECISIONS

The Inspector General has no disagreement with significant management decisions made during this reporting period.

LIST OF REPORTS

We issued the following audit reports and, where applicable, the total dollar value of questioned costs (including a separate category for the dollar value of unsupported costs) is listed for each report. During this reporting period, we did not have any reports with recommendations on how to use funds more efficiently.

EXTERNAL AUDIT

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-1001	Paths/Prism	10/30/90	95,286	0
91-1002	Anver Bioscience Design, Inc.	11/15/90	67,927	0
91-1003	Computer Technology Associates, Inc.	11/15/90	27,058	0
91-1004	American Chemical Society	11/15/90	227,738	106,661
91-1005	American Statistical Association	11/15/90	855,787	410,589
91-1006	American Geological Institute	11/15/90	88,596	0
91-1007	Southern Research Institute	11/15/90	0	0
91-1008	Federal Electric Corporation (ITT)	11/15/90	0	0
91-1009	Corridor Partnership for Excellence in Educ.	11/21/90	302,966	0
91-1010	State of Kansas	11/27/90	0	0
91-1011	Montana Science Teachers Association	11/27/90	4,353	0
91-1012	University of Mississippi	11/27/90	0	0
91-1013	Johns Hopkins University	11/27/90	0	0
91-1014	College of Charleston	11/27/90	0	0
91-1015	Thomas Jefferson University	11/27/90	0	0
91-1016	Commonwealth of Massachusetts	11/27/90	0	0
91-1017	Compuware	11/30/90	0	0
91-1018	Corporation of Gonzaga University	11/30/90	0	0
91-1019	County of Nassau	11/30/90	0	0
91-1020	Mississippi State University	11/30/90	0	0
91-1021	Charles River Association	11/30/90	0	0
91-1022	Spectra Technology, Inc.	11/30/90	0	0
91-1023	Research Foundation of the C.U.N.Y.	11/30/90	0	0
91-1024	University of Nebraska	11/30/90	0	0
91-1025	Westinghouse Electric Corp.-Sci. & Tech Ctr.	11/30/90	0	0
91-1026	Virginia State University	11/30/90	0	0
91-1027	State of Florida	11/30/90	0	0
91-1028	Albany State College	11/30/90	0	0
91-1029	New Mexico Institute of Mining and Tech.	12/03/90	0	0
91-1030	American Science & Engineering, Inc.	12/03/90	0	0
91-1031	CAP Gemini America, Inc.	12/07/90	338,226	0
91-1032	Institute for Scientific Research	12/10/90	0	0
91-1033	William B. Retallick Associates	12/12/90	98,354	0
91-1034	Hahn Engineering, Inc.	12/12/90	68,614	0
91-1035	Research Biochemicals, Inc.	12/12/90	89,291	0

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-1036	Corporation for National Research Initiatives	12/17/90	5,783	0
91-1037	Air New Zealand	12/19/90	0	0
91-1038	Prism Productions	01/14/90	410,338	7,503
91-1039	Pennsylvania State University	12/27/90	1,384	0
91-1040	Applied Management Sciences	12/27/90	3,328	0
91-1041	Cyberoptics Corporation	12/28/90	0	0
91-1042	National Academy of Sciences	12/28/90	0	0
91-1043	National Academy of Sciences	12/28/90	0	0
91-1044	National Academy of Sciences	12/28/90	0	0
91-1045	National Academy of Sciences	12/28/90	0	0
91-1046	National Academy of Sciences	12/28/90	0	0
91-1047	Bartol Research Institute	01/02/91	20,739	0
91-1048	Bartol Research Institute	01/02/91	337	0
91-1049	SeaSpace, Inc.	01/04/91	0	0
91-1050	Bartol Research Institute	01/03/91	36,452	0
91-1051	Batelle Memorial Institute	01/03/91	0	0
91-1052	Pennsylvania State University	01/03/91	0	0
91-1053	Calif. State Univ. Polytech Foundation	01/03/91	0	0
91-1054	Brown University	01/03/91	0	0
91-1055	Woodward-Clyde Consultants S.W. Operating Group	01/03/91	0	0
91-1056	Columbia University	01/03/91	0	0
91-1057	American Council of Learned Societies	01/03/91	0	0
91-1058	Howard University	01/03/91	692	692
91-1059	Rand Corporation	01/03/91	0	0
91-1060	Skidaway Institute of Oceanography	01/03/91	0	0
91-1061	Medical College of Hampton Roads	03/14/91	0	0
91-1062	L.A. County Museum of Natural History Fnd.	12/31/90	0	0
91-1063	American Society of Zoologists	01/04/91	5,624	0
91-1064	Harbor Branch Oceanographic Inst., Inc.	01/09/91	0	0
91-1065	Mission Research Corporation	01/10/91	0	0
91-1066	Hope College	01/10/91	0	0
91-1067	Mission Research Corporation	01/10/91	0	0
91-1068	Mission Research Corporation	01/10/91	0	0
91-1069	Field Museum of Natural History	01/10/91	52,173	7,123
91-1070	Northwest Research Associates, Inc.	01/10/91	0	0
91-1071	State of North Carolina	01/10/91	0	0
91-1072	Dull Knife Memorial College	01/10/91	0	0
91-1073	University of the Sacred Heart	01/10/91	0	0
91-1074	Physical Dynamics, Inc.	01/10/91	0	0
91-1075	N. Carolina Agriculture & Tech University	01/11/91	0	0
91-1076	Northshore School District #417	01/11/91	0	0
91-1077	Mayo Foundation	01/11/91	0	0
91-1078	University of California - L.A.	01/11/91	0	0
91-1079	State of Colorado	01/11/91	0	0
91-1080	Georgetown University	01/11/91	0	0
91-1081	Smithsonian Astrophysical Observatory	01/11/91	0	0

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-1082	Smithsonian Astrophysical Observatory	01/11/91	0	0
91-1083	State of Texas	01/11/91	0	0
91-1084	Virginia Comm. College Sys. Office	01/11/91	0	0
91-1085	Francis Marion College	01/11/91	0	0
91-1086	Virginia Commonwealth University	01/11/91	0	0
91-1087	Baylor University	01/11/91	0	0
91-1088	James Madison University	01/14/91	0	0
91-1089	State of South Dakota	01/14/91	0	0
91-1090	State of Washington	01/14/91	0	0
91-1091	Arizona State University	01/14/91	0	0
91-1092	Old Dominion University	01/14/91	0	0
91-1093	Maine Audubon Society	01/22/91	2,821	0
91-1094	Center for Naval Analyses	01/26/91	0	0
91-1095	Center for Naval Analyses	01/26/91	0	0
91-1096	Virginia Department of Education	01/26/91	0	0
91-1097	Neurosciences Research Foundation, Inc.	01/26/91	0	0
91-1098	Southeastern Universities Research Assoc.	01/26/91	97,123	0
91-1099	American Institute of Physics	01/26/91	42,508	0
91-1100	Spaceborne, Inc.	01/26/91	73,497	0
91-1101	Milwaukee Museum	01/26/91	0	0
91-1102	Virginia State University	01/26/91	0	0
91-1103	National Urban League, Inc.	01/26/91	0	0
91-1104	Carnegie Mellon Univ./Software Engr. Inst.	01/26/91	0	0
91-1105	Anco Engineering	01/26/91	0	0
91-1106	Anco Engineering	01/26/91	0	0
91-1107	Market Facts, Inc.	01/26/91	0	0
91-1108	Physical Dynamics	01/26/91	0	0
91-1109	Rand Corporation	01/26/91	0	0
91-1110	General Electric Co.- Corp. R & D Center	01/26/91	0	0
91-1111	National Science Teachers Association	01/26/91	0	0
91-1112	Smithsonian Institution	01/26/91	0	0
91-1113	Spectra Technology, Inc.	01/26/91	0	0
91-1114	California State University - Chico	02/05/91	0	0
91-1115	Courtesy Travel Services	01/31/91	18,877	0
91-1116	La Jolla Institute	02/01/91	2,157	0
91-1117	Penn State University	02/11/91	4,580	0
91-1118	Westat, Inc.	02/14/91	0	0
91-1119	Hampton University	02/14/91	0	0
91-1120	Wisconsin Academy of Sciences Arts & Letters	02/14/91	39,537	0
91-1121	Kalamazoo Area Math & Science Center	02/15/91	1,104	0
91-1122	Life Lab Science Program	02/25/91	102,986	0
91-1123	University of the Sacred Heart	02/25/91	0	0
91-1124	Federal Electric Corporation (ITT)	02/25/91	208,978	0
91-1125	Duke University	02/25/91	0	0
91-1126	Research Triangle Institute	02/25/91	0	0
91-1127	Southern Methodist University	02/25/91	0	0

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-1128	Electroimpact, Inc.	02/25/91	18,979	0
91-1129	Northwest Research Associates, Inc.	02/25/91	0	0
91-1130	University of Alabama	02/25/91	0	0
91-1131	Northeastern Ohio Univ. Coll. of Medicine	02/25/91	0	0
91-1132	American Society of Civil Engineers	02/25/91	92,647	8,808
91-1133	Optima Systems	02/25/91	191,513	0
91-1134	Cal Poly Kellogg Unit Foundation, Inc.	02/28/91	0	0
91-1135	National Public Radio	03/06/91	764,978	0
91-1136	American Geophysical Union	03/11/91	109,121	98,255
91-1137	Rangen Aquaculture Research Center	03/10/91	74,357	0
91-1138	Texas Learning Technology Group	03/10/91	7,082	7,082
91-1139	Torrey Pines Inst. for Molecular Studies	03/11/91	41,311	0
91-1140	Council for Advancement of Science Writing	03/14/91	121,865	0
91-1141	American Astronomical Society	03/15/91	0	0
91-1142	Cambridge Research & Instrumentation	03/15/91	17,764	0
91-1143	Thermalon	03/25/91	112,065	0
91-1144	Temple University	03/25/91	19,179	0
91-1145	National Association of Biology Teachers	03/27/91	73,983	0
91-1146	Center for Applied Linguistics	03/25/91	6,073	0

INTERNAL AUDIT

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-2101	Review of NSF Employee Parking Permit System	01/23/91		
91-2102	Review of Lobbying Restrictions Certifications	12/17/90		
91-2103	Review of the Travel Charge Card Program	03/29/91		
91-2104	Review of NSF's Voucher's Payable System	—		

OVERSIGHT*

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-3200	Committee of Visitors: Status of FY 91 Reviews	01/15/91		
91-3201	Conflicts-of-Interests Review: Volunteers Entering and Leaving, October 1990 through January 1991	02/14/91		
91-3202	Conflicts-of-Interests Review: Intergovernmental Personnel Act Assignees Entering and Leaving, August through October 1990	03/11/91		
91-3203	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, September 1990	03/05/91		
91-3204	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, October 1990	02/14/91		

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-3205	Conflicts-of-Interests Review: Intergovernmental Personnel Act Assignees Entering and Leaving, October 1990	11/16/90		
91-3206	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, November 1990	02/14/91		
91-3207	Conflicts-of-Interests Review: Intergovernmental Personnel Act Assignees Entering and Leaving, November 1990	02/18/91		
91-3208	Conflicts-of-Interests Review: Intergovernmental Personnel Act Assignees Entering and Leaving, December 1990 through early January 1991	03/08/91		
91-3209	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, December 1990	02/27/91		
91-3210	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, January 1991	03/12/91		
91-3211	Conflicts-of-Interests Review: Intergovernmental Personnel Act Assignees Entering and Leaving, December 1990 through mid-January through February 1991	02/15/91		
91-3212	Conflicts-of-Interests Review: Volunteers FY 1990 Activity	02/27/91		

Audit Report Number	Title	Date Report Issued	Dollar Value	
			Questioned Costs	Unsupported Costs
91-3213	Compliance Review: FY 90 Division of Material Development, Research and Science Education	02/05/91		
91-3214	Conflicts-of-Interests Review: NSF Staff and Rotators Entering and Leaving, February 1991	03/12/91		
91-3215	Conflicts-of-Interests Review: Volunteers, February 1991	03/07/91		

*Many of the Oversight reports are brief memoranda that furnish level of compliance information to NSF management. For example, many check for adherence to certain NSF conflict-of-interest regulations as they apply to all new and leaving employees and intergovernmental personnel act assignees. These conflict-of-interest reports facilitate the Foundation's policy of using active scientists and engineers to rotate into the agency at all NSF staff levels.

STATISTICAL TABLE OF INSPECTOR GENERAL ISSUED REPORTS WITH QUESTIONED COSTS

The Inspector General Act Amendments of 1988 require that statistical information be presented on the number and the dollar value of recommended questioned costs and efficiencies contained in the reports issued during the period. The following tables provide the required statistical information.

	Number	Dollar Value	
		Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the reporting period	65	5,516,814	1,583,510
B. Which were issued during the reporting period	47	5,046,131	646,713
C. Reports which were reopened based on additional information	0	0	0
Subtotals (A + B + C) D	112	10,562,945	2,230,223
D. For which a management decision was made during the reporting period	*29	810,176	N/A
(i) dollar value of disallowed costs		456,378	
(ii) dollar value of costs not disallowed		353,798	
E. For which no management decision has been made by the end of the reporting period	83	9,752,769	2,249,375
Reports for which no management decision was made within six months of issuance	40	5,062,082	1,609,744

*One of these has been appealed and is under review and negotiation.

GLOSSARY

The following defines the terms used in reporting audit statistics.

Questioned Cost

A cost the OIG has questioned because of an alleged violation of law, regulations, contract, grant, cooperative agreement, or other agreement or document governing the expenditure of funds; such cost is not supported by adequate documentation; or the expenditure of funds for the intended purpose is unnecessary or unreasonable.

Unsupported Cost

A cost the OIG has questioned because of a lack of adequate documentation at the time of the audit.

Disallowed Cost

A questioned cost that management, in a management decision, has sustained or agreed should not be charged to the government.

Funds to be Put to Better Use

Funds the OIG has identified in an audit recommendation that could be used more efficiently by reducing outlays, deobligating program or operational funds, avoiding unnecessary expenditures, or taking other efficiency measures.

Management Decision

Management's evaluation of audit findings and recommendations and issuance of a final decision concerning management's response to such findings and recommendations.

Final Action

The completion of all management actions—that are described in a management decision—with respect to audit findings and recommendations. If management concluded no actions were necessary, final action occurs when a management decision is issued.

Misconduct

The fabrication, falsification, plagiarism, or other serious deviation from accepted practices in proposing, carrying out, or reporting results from research; the material failure to comply with federal requirements for protection of researchers, human subjects, or the public or for ensuring the welfare of laboratory animals; or the failure to meet other material legal requirements governing research.

If you want to report or discuss confidentially any instance of fraud, waste, abuse, mismanagement, or misconduct in science, please contact the Office of Inspector General.

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