

**OFFICE OF
INSPECTOR GENERAL**

**SEMIANNUAL REPORT
TO
THE CONGRESS**

Number 1

April 1, 1989 - September 30, 1989



National Science Foundation

October 31, 1989

TO THE NATIONAL SCIENCE BOARD AND THE UNITED STATES CONGRESS

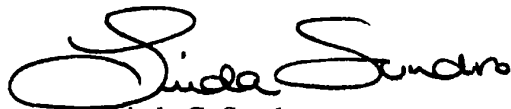
This is the first Semiannual Report for the Office of Inspector General (OIG) of the National Science Foundation (NSF). It summarizes our major activities and accomplishments from April 1, 1989 to September 30, 1989. Section 5 of the Inspector General Act of 1978, as amended, requires that the National Science Board transmit this report to the appropriate committees of the Congress within 30 days of its receipt, along with any comments the Board may wish to make.

The bulk of our efforts during this first reporting period was directed at establishing an office able to fulfill the requirements imposed by the Inspector General Act. This work involved enhancement of audit and oversight capability as well as establishment of positions for investigation and legal analysis.

We are pleased to report that the National Science Board supports the Inspector General's initiative to increase OIG's in-house cost and compliance audit capability. In the coming months, we will begin developing an audit staff able to perform up to 30% of the cost and compliance audits now performed by private sector contractors. We believe in-house audit staff can provide these audit services to NSF with greater responsiveness and at a reduced cost.

The cooperation and support of managers and employees at the National Science Foundation facilitated many of the results documented in this report. In particular, we would like to acknowledge the assistance and encouragement provided by the Director of the Foundation and the Chairman of the Board's Audit and Oversight Committee.

We look forward to working with the Board and NSF's executive management in promoting economy and efficiency in the Foundation's programs and management practices.



Linda G. Sundro
Inspector General

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EXECUTIVE SUMMARY

This is the first semiannual report for the Office of Inspector General (OIG) of the National Science Foundation (NSF). It summarizes the major activities and accomplishments of the office from April 1, 1989 to September 30, 1989.

The Foundation is an independent agency, established in 1950, to promote and advance scientific progress by sponsoring research and education in science and engineering. NSF is led by the National Science Board, which makes policy decisions, and by its Director, who is responsible for day-to-day administration of the agency. The Inspector General reports to the Board.

The bulk of OIG efforts during this first reporting period was directed at establishing an office able to fulfill the requirements imposed by the Inspector General Act Amendments of 1988. To date, the Board has hired a permanent Inspector General and we have established positions to provide investigative and legal analysis capability, increased the number of external audit positions, and broadened OIG's oversight role.

A major initiative will increase OIG's in-house capability to audit grants and contracts. Currently, approximately 95% of the Foundation's cost and compliance audit work is conducted either by private audit firms under contract to NSF or by auditors employed at the Departments of Health and Human Services or Defense. We believe that an in-house audit staff can provide these services with greater responsiveness and at a reduced cost. We plan to develop an audit staff capable of undertaking up to 30% of the agency's cost and compliance audits by the close of FY 1991.

Our audit activities in the last six months included reviews of contract auditors' findings, internal reviews of the management of the agency, and direct reviews of the Foundation's grantees. These efforts resulted in the redirection or recovery of federal funds in excess of \$161,000.

Our management reviews focused on ways to improve grantee responsiveness to Office of Management and Budget (OMB) circulars, Foundation compliance with OMB budget guidelines and improvements to NSF's automated employee time and attendance system. Although we did not employ any investigators during this reporting period, our inquiries into allegations of scientific misconduct, criminal wrongdoing, and other employee and grantee violations resulted in the voluntary censure of one scientist and the recovery of funds and resignation of an NSF employee.

NSF management has been supportive of our efforts during this first full six months of operation. With continued support, we hope to be able to provide the Foundation with more diversified and responsive services in the months to come.

AN INTRODUCTION TO THE NATIONAL SCIENCE FOUNDATION

The Foundation is an independent agency, established in 1950, to promote and advance scientific progress in the United States primarily by sponsoring scientific and engineering research and by supporting science and engineering education activities.

Background

The National Science Foundation Act of 1950 (42 U.S.C. 1861-1875) established the agency. The Foundation received additional authority from the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885-1885d) and Title I of the Education for Economic Security Act (20 U.S.C. 3911-3922).

The purposes of the Foundation are:

- to increase the Nation's base of scientific and engineering knowledge and strengthen its ability to conduct research in all areas of science and engineering;
- to develop and help implement science and engineering education programs that can better prepare the nation for meeting challenges of the future; and
- to promote international cooperation through science and engineering.

In its role as a leading federal supporter of science and engineering, NSF also has an important role in national policy planning.

The National Science Board

By statute, the Foundation is led by the National Science Board and the Director. The Board is composed of 24 part-time members and the Director who is an "ex officio" member. Board members are appointed by the President, by and with the advice and consent of the Senate, for six-year terms. They are selected because of distinguished service in science, medicine, engineering, agriculture, education, public affairs, research management or industry and are chosen to be representative of the scientific and engineering leadership in all areas of the nation. Legislation also provides for the appointment of a Deputy Director, subject to Senate confirmation.

The National Science Foundation Act assigns policymaking functions to the National Science Board and day-to-day administration of the Foundation to the Director. The policies of the Board in support of science and engineering and develop-

ment of scientific and engineering personnel are implemented through the various programs of the Foundation.

NSF Organization and Activities

NSF currently comprises seven directorates concerned with research and education in science and engineering and one directorate for administration as indicated in *Figure 1*, the National Science Foundation's organization chart. The NSF does not conduct research directly but manages and distributes its appropriated funds to over 2,000 grantee institutions. External merit review is used extensively in deciding which proposals submitted by these institutions will be funded. To accomplish its mission, the Foundation employs about 1,250 people, of which approximately 450 are professional scientists, engineers or educators.

In addition to its principal locations at 1800 G St. NW and 2000 L St. NW in Washington, DC, the NSF maintains a warehouse in Springfield, VA. Abroad, the Foundation maintains a presence through the NSF New Delhi Office, the NSF Tokyo Office, the NSF Europe Office in Paris, and an NSF Antarctic Program Office in Christchurch, New Zealand.

Under NSF's flexible workplace program, three experts and two Intergovernmental Personnel Act assignees are intermittent "telecommuters" serving NSF programs. One full-time, regular employee who resides in the Washington metropolitan area is an agency-approved "telecommuter".

NSF's Impact on Research and Education

The Foundation plays a crucial role in keeping the nation's research universities and colleges strong. Last year, NSF financed almost two-thirds of the civilian basic research conducted at U.S. colleges and universities (excluding work in the life sciences supported by NIH). Further, NSF was the primary source of federal funding for science and engineering education at all levels in all fields.

Growth in NSF Budget

The value of NSF programs has led two administrations to propose doubling the NSF budget within five years. In November 1988, then-President Reagan signed into law a bill authorizing such a doubling. This multi-year authorization, which is the first such in NSF history, signaled both Congressional and executive support for NSF policies and plans. President Bush, in

NATIONAL SCIENCE FOUNDATION

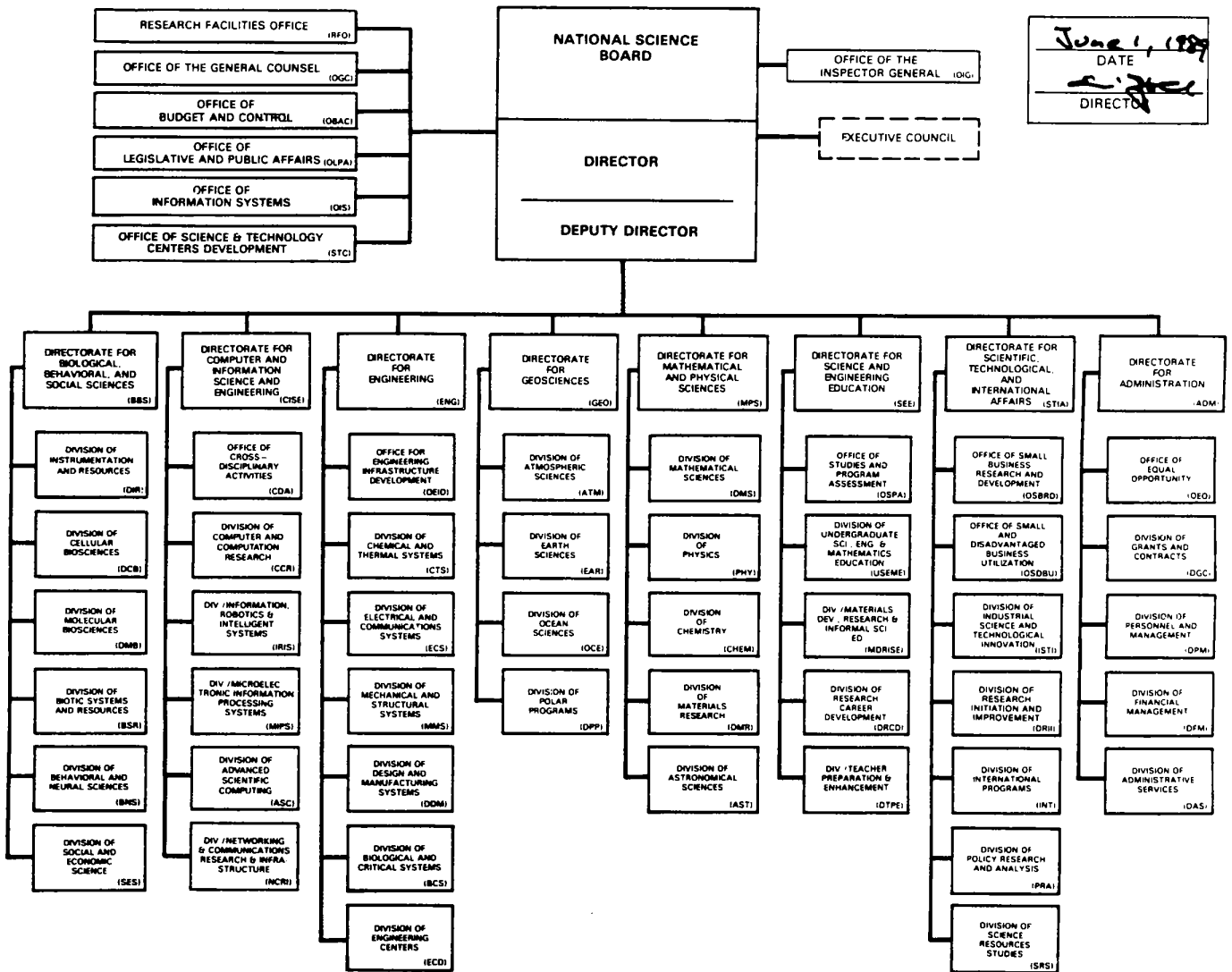


Figure 1

his first State of the Union address, in January 1989, pledged to double the NSF budget by 1993.

Economic competitiveness appears to be a major force for change in the research environment. As a result of fundamental changes in the world economy, science and engineering research and education have assumed a heightened strategic importance. President Bush has singled out research and education as major issues for his Administration. In FY 1990, if the Congress approves the Administration's budget request, NSF's budget will increase by 14%, raising total funding to over two billion dollars.

Proposal Activity

In fiscal year 1989, the Foundation received approximately 37,000 research proposals for funding. Proposals undergo evaluation by external peers, NSF scientists and administrative personnel. Sometime during the course of evaluation, each proposal is either awarded, declined, declared inappropriate for NSF funding, or withdrawn. During the last funding year, NSF made approximately 17,000 awards, totaling \$1.8 billion dollars, and declined to fund about 18,400 proposals. Slightly more than 1,300 proposals were withdrawn or declared inappropriate for funding.

Office of Audit and Oversight

Prior to February 10, 1989, many OIG activities were performed by NSF's Office of Audit and Oversight. At that time the office reported to the Director. Previously the office reported to the Controller in NSF's Office of Budget, Audit and Control.

Prior to passage of the Inspector General Act Amendments, the Office of Audit and Oversight was responsible for audit and oversight of the financial, administrative, and programmatic aspects of NSF's activities. The office served as the focal point of contacts with other federal audit organizations in the executive branch and with the General Accounting Office (GAO).

The office comprised three sections: External Audit, Internal Audit, and Oversight. The External Audit Section performed audits of NSF grants and contracts at universities, commercial firms, and nonprofit organizations and followed up on the implementation of recommendations included in audit reports. It was also responsible for award-related cost analyses and for recommending indirect cost rates applicable to NSF awards to NSF's Division of Grants and Contracts.

The Internal Audit Section was responsible for reviewing and evaluating the financial, administrative, and programmatic aspects of NSF activities. This included the evaluation of internal controls and data processing systems; investigating charges of improper actions by NSF staff; and following-up on the implementation of recommendations included in both NSF and GAO audit reports.

The Oversight Section reviewed, evaluated, and reported to NSF management on the administrative, procedural, and policy aspects of proposal actions in NSF programs; monitored the schedule and the process of external peer oversight; summarized external peer oversight reports on the technical stewardship of all research programs; ensured adherence to NSF conflicts-of-interests regulations as they apply to new and former employees; monitored the NSF formal reconsideration process; investigated charges of improper actions by NSF staff; and assessed overall system performance and recommended improvements.

Establishment of the Office of Inspector General

With the enactment of the 1988 Inspector General Act Amendments, Public Law 100-504, Congress established Offices of Inspector General in several more departments and in thirty-three smaller agencies, including NSF. All audit and investigative activities of each agency were consolidated in these OIGs. Under the law, the IGs themselves (nonpartisan Presidential appointees requiring Senate confirmation in the case of the larger establishments and head-of-entity appointees in the thirty-three smaller agencies) were assured independence. For example, NSF's Inspector General

- cannot be prevented from carrying out any audit or investigation or issuing any report or subpoena;
- must be given access to all NSF records and files;
- reports directly to the National Science Board and can be removed only by the Board which must then advise Congress of the reasons for the removal; and
- reports directly to the Congress.

The statute provides the OIG with the responsibility and the authority to

- conduct and supervise audits and investigations of NSF programs and operations;

- provide leadership and coordination and recommend policies for activities designed:
 - (a) to promote economy, efficiency and effectiveness in the administration of NSF programs and operations and
 - (b) to prevent and detect fraud and abuse in NSF programs and operations; and
- provide a means for keeping the head of the entity and the Congress fully and currently informed about problems and deficiencies relating to the administration of NSF programs and operations and the necessity for and progress of corrective action.

Twice each year, the IG must report to the Congress as specified in the Inspector General Act of 1978, as amended. The National Science Board may comment on—but may not change—these semiannual reports. Also, at any time, the IG may make special reports to the Congress about particularly serious or flagrant problems. The Board may comment on these reports but must transmit them unaltered to the Congress within seven days of receipt.

In compliance with the requirements of PL 100-504, the National Science Board established the Office of Inspector General for NSF on February 10, 1989. The Board transferred most of the staff from the NSF Office of Audit and Oversight to the newly established OIG, which had the organization shown in *Figure 2*. The indirect cost analysis group (numbering four) did not accompany the nineteen staff who transferred into the new office. At the same time, the National Science Board named Dr. Jerome H. Fregeau Acting Inspector General and began a nation-wide search for a permanent Inspector General. On April 12, 1989, after a review of 291 applications, the Board announced the appointment of Ms. Linda G. Sundro as NSF's first Inspector General.

In the development of the FY 1990 plan for the OIG it became clear that additional staff were necessary and a FY 1990 staff of 25 was approved by the National Science Board at its August 1989 meeting. This staffing level represents an increase of six over the current FY 1989 level and allows for a new post of attorney-advisor who serves the entire OIG, a new position of investigator who will join Internal Audit, and an expansion of both External Audit and Oversight activities.

OFFICE OF INSPECTOR GENERAL ORGANIZATIONAL CHART

(as of February 10, 1989)

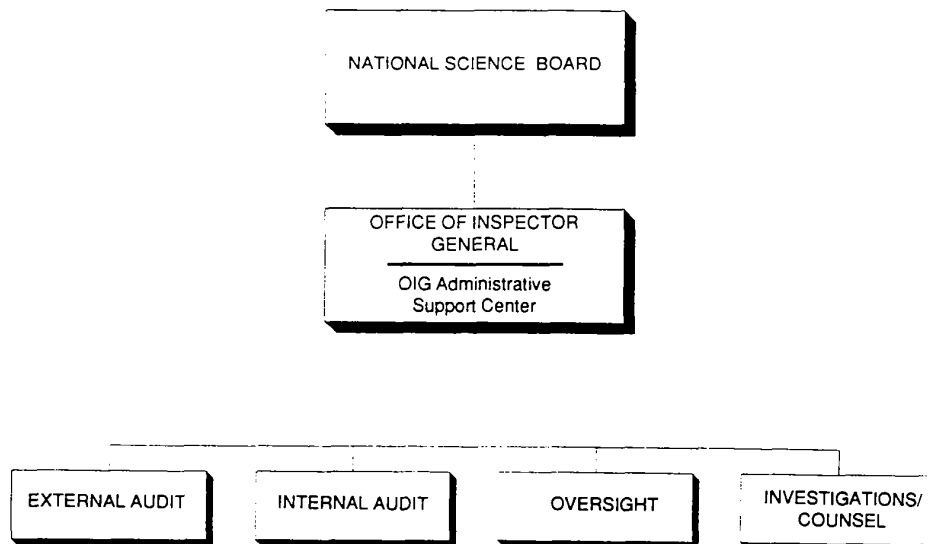


Figure 2

The Inspector General's First-Year Initiatives

While the NSF's former Office of Audit and Oversight (OAO) provided a good foundation to begin implementation of the Inspector General Act Amendments, certain changes in staffing and a broadening of OAO's capability were necessary to meet the new statutory requirements. The organization for the OIG was altered to that in *Figure 3*.

We believe, and the Foundation's executive management concurs, that development of a legal analysis capability independent of NSF's Office of General Counsel is essential to developing independent OIG perspectives on many of the Foundation's programs and policies. The addition of a trained criminal investigator to work with legal and other OIG staff will provide a strong basis for analyzing allegations of fraud, scientific misconduct, and other kinds of criminal wrong-doing.

The major initiative in the external audit area will increase the OIG's in-house audit capability. Currently, approximately 95% of the Foundation's cost and compliance audit work is conducted either by private audit firms under contract to NSF, or auditors employed by the Departments of Health and Human Services or Defense. We believe that an in-house audit staff can provide these services with greater responsiveness and at a reduced cost. Currently, staffing plans contemplate additional auditors in FY 1990 and FY 1991. With this increased staffing complement,

OFFICE OF INSPECTOR GENERAL ORGANIZATIONAL CHART

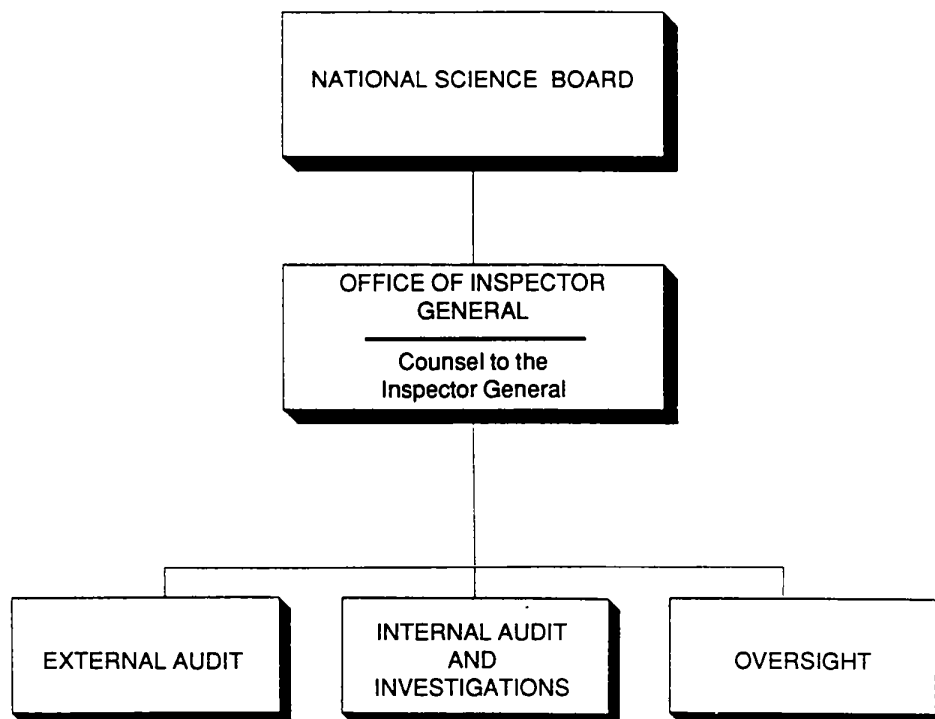


Figure 3

we plan to provide the Foundation with an audit staff capable of undertaking up to 30% of the agency's cost and compliance audits by the close of FY 1991.

The OIG oversight responsibilities are being broadened and staffing increased in response to several concerns. Congressional interest in the area of scientific misconduct has resulted in a new emphasis on gathering data to assess the scope of the problem and developing investigative techniques to resolve allegations when they arise. Changes in conflicts-of-interests laws and regulations create new difficulties for the Foundation, which is committed to the concept of "rotation" of scientists from the private to the public sector for limited periods. We will be working with program staff to help ensure compliance with applicable laws and regulations in a way which will not impinge upon the free exchange of scientific, engineering, and education expertise.

It takes time to build any function within government, and an Office of Inspector General is no exception. We are pleased to report NSF management has been responsive to our administrative needs by providing additional space, equipment and staffing in an expedited fashion. This support has enabled us to achieve many of the goals we have set for ourselves in the first six months of operation. With continued support, we hope to be able to provide the Foundation, in the shortest time possible, with an Office of Inspector General capable of responding to the full range of NSF's diverse needs.

AUDITS

Our audit activities in the last six months centered around reviewing the findings of contract auditors, conducting internal reviews of the management of the agency, and conducting direct reviews of the Foundation's grantees. Our financial audits of individual award recipients, by both contract and in-house auditors, resulted in the redirection or recovery of federal funds in excess of \$161,000.

FINANCIAL AND COMPLIANCE AUDITS

New Grants Suspended to California Museum

We found major problems with accounting, documentation, and control of federal funds at a California museum which has received in excess of \$2.4 million from the Foundation since 1982. Although the museum had been notified about the

establishment of indirect cost rates significantly below their proposed rate, it had not notified NSF of its disagreement or taken action to bill at the newly established rates. Our review resulted in questioned costs in the amount of \$254,758 on claimed costs of \$1.5 million.

The audit was undertaken as a result of observations made during a site visit to discuss the indirect cost rate. The audit found that:

- costs were charged to grants without adequate documentation;
- purchase orders were prepared after goods were received;
- payroll costs were not always computed based on actual time worked;
- travel advances were expensed to grants;
- fixed asset records were not properly maintained;
- use and payment of consultants were not properly documented;
- accounts were not maintained so that line item expenditures by grant could be compared with the grant budget;
- progress reports were not submitted on a timely basis; and
- final reports were not always filed by the due date.

Because of the pervasiveness of the problems, we recommended that NSF suspend future grant awards until corrective action was taken. The Foundation agreed and implemented our recommendation.

Accounting System Found Inadequate

We found that a Washington, D.C. educational institution did not have a system of accounts that adequately accumulated individual grant costs as required by OMB circulars. As a result, alternative procedures had to be used to verify costs claimed under federal grants. Although only \$2,700 in foreign travel costs were questioned, the methodology of accounting for grants by year, the loss of five months of cost center reports, the lack of a physical inventory of fixed assets, and the absence of review of deletions from the fixed asset records caused serious concern.

Because of the accounting system's deficiencies, we were unable to provide other federal entities with the assurance that their

funds had been fully accounted for. We did find, however, that due to the high percentage of co-financing by the grantee from nonfederal funds, and the nature of the expenditures under the programs, the government can be fairly well assured that federal funding was (or will be) expended for expected purposes.

In response to our findings, the institution implemented a new fixed asset accounting system and improved its management and control of files and records. These actions corrected the deficiencies identified by our report.

***Scientist's Dispute
Over Grant Charges
Resolved***

Acting on information received from the principal investigator of two grants made to a private university in New York State, we conducted a review to determine whether graduate student and research associate salaries had been properly charged to NSF awards.

A disagreement had arisen between the principal investigator and the university on the appropriateness of the laboratory space assigned for the research to be supported under the awards. During various periods of the research, the principal investigator advised the university that he could not continue work because appropriate space had not been provided by the university. During the times he was unable to work, he advised the university that student and research associate salaries should not be charged to NSF awards because no work on the NSF awards could take place. The disagreement continued until the principal investigator requested that the unexpired award be terminated by NSF since, under the circumstances, he was unable to perform the work.

We found that charges for salaries and tuition had been made for the periods during which the principal investigator stated no work was undertaken on the awards. The university has been advised to correct its charging practices. Negotiations are continuing on the amount of the disallowances that should be repaid the government.

***Poor Accounting
Practices Result in
Questioned Costs***

Our review of a nonprofit research group located in Rockville, Maryland, disclosed that the grantee did not properly evaluate costs to determine allowability and/or allocability, failed to retain detailed accounting records of project costs, lacked

support documentation for many expenses, and failed to conduct an annual audit for compliance with federal grant conditions.

In addition to the lack of documentation, the research group charged a higher indirect cost rate than either the actual rate or the maximum provisional rate. They also allocated costs which included an applied general and administrative rate. This resulted in double recovery of general and administrative expenses for the departments involved.

As a result of these accounting and reporting deficiencies, \$11,701 in direct costs and \$147,378 in indirect costs were questioned out of a total \$2.2 million claimed.

MANAGEMENT AUDITS

Our management reviews during this reporting period focused on ways to improve grantee responsiveness to OMB circulars, Foundation compliance with OMB budget guidelines and improvements to NSF's automated employee time and attendance system.

Foundation's Fourth Quarter Spending Found Appropriate

We reviewed NSF's year-end spending for fiscal year 1988. This review was conducted in response to OMB's Memorandum M-88-24, which addressed the need to prevent wasteful fourth quarter spending throughout government. An average of the total obligations for the first three quarters of fiscal year 1988 was compared with the total obligations for the fourth quarter. The report included summaries of obligations broken down to various levels within the Foundation and totals for specific categories of spending suggested by OMB.

Overall, NSF's year-end spending was within the guidelines suggested by OMB and no specific recommendations for improvement or correction were needed.

Poor Manual Time and Attendance Procedures Result in Automation of Records

A follow-up review of the time and attendance reporting system was performed at the request of the NSF's Director. Previously reported levels of compliance with NSF flexitime policies and procedures were not considered satisfactory. The primary focus of our review was to determine whether the Foundation's manual system of records used to record time and attendance for flexitime employees was adequate to account for hours worked.

Our review concluded that time and attendance policies and procedures were not being followed at a level which would provide adequate assurance that all data reported on the electronic timecard system are adequate. In addition, the report noted that the procedures used to record time and attendance of part-time and intermittent employees needed clarification.

As a result of our review and the Director's concern, the Foundation decided to automate the manual flexitime records and electronically connect the initial recording of time worked by flexitime employees with the electronic timecard system. The procedures for recording time worked by part-time and intermittent employees have been clarified. Several suggestions made to enhance internal controls in the electronic timecard system have been scheduled for implementation.

***Management Review
at Observatory
Results in Improved
Operations***

We conducted a management review at an observatory in West Virginia and recommended improvements in the observatory's audit services, accounting practices, procurement system, cash management, property administration, personnel practices, and vehicle maintenance.

Our review identified duplication of effort by the observatory's internal and external auditors. We also found that closure of the financial records occurred twice each year because the observatory used a different accounting year from that of its management contractor and the federal government. We determined that a change in the observatory's accounting year to coincide with the federal government's could make available, on a one time basis, \$4 million of NSF funds for use on other programs.

There were other findings which could not be readily assigned a dollar impact but which needed to be addressed. These included:

- cash receipts that should have been deposited on a regular and timely basis;
- vehicle maintenance that needed to be expanded to include all maintenance elements and certain vehicles which were excluded by the system in place during the review;
- position descriptions for observatory staff as well as yearly evaluations that were not fully documented; and

- excess paperwork in the procurement system.

The recommendations resulting from this review, with the exception of those changing the accounting year and the role of the internal auditors, were all accepted and acted upon by NSF and observatory management.

INVESTIGATIONS

During this reporting period the OIG did not employ any special agents to conduct investigations into allegations of wrongdoing. Nonetheless, auditors assigned to OIG's Internal Audit conducted inquiries which related to allegations of criminal wrongdoing, violations of the Foundation's regulations, and other employee and grantee misconduct.

The OIG also assisted the Foundation in resolving allegations of scientific misconduct. In keeping with Foundation policy, these reviews were conducted in concert with investigators or committees-of-discipline convened by the cognizant scientific or educational institution.

There were no cases during this reporting period which resulted in referrals to the Department of Justice. One case was referred to a university which convened a committee-of-discipline.

Fraudulent Reimbursement Vouchers Generated

The OIG received allegations that one of the Foundation's employees was misappropriating government funds through the submission of fraudulent reimbursement vouchers. NSF had recently converted from a cash imprest fund disbursement system to a third-party draft system (TPDS). We reviewed the disbursements made through TPDS to determine whether any fraudulent payment vouchers had been generated and the extent of the loss. We confirmed that an employee had generated three fraudulent checks totaling \$82.64. Restitution was obtained and the employee resigned before action for removal could be completed.

The scope of our inquiry was then expanded to include a review of the newly instituted TPDS to ensure that the system complied with applicable federal regulations and that proper internal controls had been established. Our audit revealed that the TPDS was not properly authorized by the U.S. Department of the Treasury and was being used to issue payments in dollar amounts and for types of expenses that should only be issued through Treasury. Other internal control weaknesses existed within the system. As a result of our recommendations,

Treasury authorization was obtained, adequate internal controls were established, and drafts in excessive dollar amounts and payments that should not have been made through the TPDS were discontinued. The \$3.5 million dollar letter-of-credit originally established for TPDS disbursements was reduced to \$900,000.

***Scientist Censured
for Misrepresenting
Preliminary
Scientific Findings
in Grant Application***

An assistant scientist with a northwest research institute agreed to be declared ineligible for funding as a principal investigator after an internal review committee convened by his research institute found a pattern of repeated misrepresentation of data in his proposals for research support. The grant application, which was also submitted to the National Institutes of Health (NIH), was the scientist's first independent attempt at obtaining federal funds for his research program.

An inquiry was initiated after Foundation staff, who were evaluating the scientist's proposal for funding, discovered apparent misrepresentations of preliminary data in photomicrographs and reported the inconsistencies to the OIG. An initial inquiry conducted by administrators at the scientist's research institution supported a formal investigation of the matter.

An internal review committee convened by the scientist's research institute agreed unanimously that a pattern of repeated misrepresentation of data was apparent, suggesting serious misconduct by the scientist and/or his inability to meet the professional standards and quality control expected of a scientist with the training he possessed. The scientist was provided an opportunity to respond both to the internal review committee's findings and OIG's proposal to censure him by declaring him ineligible for funding as a principal investigator for a period of five years. While denying wrong-doing or guilt, the scientist admitted to carelessness in preparing the grant applications which he attributed to personal problems and poor laboratory administrative practices. The scientist's resignation from the research institute obviated the need for disciplinary action on the part of his employer.

The Public Health Service's Office of Scientific Integrity is conducting its own inquiry into work by this scientist which may have been funded by or submitted to NIH through or along with others.

SIGNIFICANT RECOMMENDATIONS FROM PREVIOUS SEMIANNUAL REPORTS

As this is the first semiannual report of the Inspector General of the National Science Foundation, there are no significant recommendations which have been previously described in earlier semi-annual reports and on which corrective action has not been completed.

AGENCY REFUSALS TO PROVIDE INFORMATION OR ASSISTANCE

There were no reports made to the National Science Board of instances where information or assistance, requested under section 6(b)(2) of the Inspector General Act of 1978, as amended, was unreasonably refused or not provided.

REPORTS WITH OUTSTANDING MANAGEMENT DECISIONS

The following is the detailed listing of the 31 reports issued before the commencement of the reporting period for which no management decision has been made. In the National Science Foundation, the Division of Grants and Contracts (DGC) is tasked with the resolution of audit recommendations and reports. The DGC has resolved a significant number of the reports issued during the past year. However, they do recognize that sufficient attention has not been applied to all outstanding reports. They have therefore set a goal of resolving all of these listed reports within the next reporting period. Recognizing that this is the first formal reporting on outstanding reports, the OIG and DGC will be working together to assure that the follow-up system and the actions taken address the intent of the resolution requirements.

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED
85-1047	University of Nebraska-Lincoln	01/30/85
86-1078	Skidaway Institute of Oceanography	06/24/86
86-1083	Atkinson-Nol and Associates Inc	05/30/86
86-1162	National Science Teachers Association	07/22/86
86-1180	Information Network Systems Inc	09/26/86
86-1183	Malcolm X College-Chicago, Illinois	09/25/86

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED
87-1061	Scientists' Institute for Public Information	04/09/87
87-1122	Biological Science Curriculum Study	06/17/87
87-1127	Woodrow Wilson National Fellowship Foundation	07/06/87
87-1129	Dosecc Inc	07/06/87
87-1134	Columbia University	07/06/87
87-1139	Collaborative Research Inc	07/06/87
88-1011	Detroit Area Pre-College Engineering Program	10/28/87
88-1017	M L Energia Inc	01/17/87
88-1063	National Astronomy & Ionosphere Center at Arecibo	03/07/88
88-1064	Research Communications Ltd	03/08/88
88-1081	Children's Museum Boston	04/15/88
88-1101	American Mathematical Society	06/06/88
88-1106	Sigma Research Inc	08/01/88
88-1107	Mathematical Sciences Research Institute	09/06/88
88-1133	RF Monolithics Inc	09/20/88
89-1005	Metropolitan Pittsburg Public Broadcasting Inc	10/21/88
89-1009	Wicat Education Institute	10/21/88
89-1014	Kariotis & Associates	10/31/88
89-1025	Vestar Research Inc	11/02/88
89-1043	Maryland Academy of Sciences (MAS)	11/29/88
89-1081	Southeastern Consortium Minority Engineering	01/30/89
89-1082	Chronar Corporation	01/30/89
89-1101	Sandoz Crop Protection Corporation	03/06/89
89-1102	Point Reyes Bird Observatory	03/14/89
89-1106	Sievers Research Inc	03/23/89

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 the reporting period.

LIST OF AUDIT REPORTS

Following is a list of audit reports issued by the OIG during the reporting period and for each audit report, where applicable, the total dollar value of questioned costs (including a separate category for the dollar value of unsupported costs) and the dollar value of recommendations that funds be put to better use.

EXTERNAL AUDIT REPORTS

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED	DOLLAR VALUE OF QUESTIONED COSTS	DOLLAR VALUE OF UNSUPPORTED COSTS	DOLLAR VALUE OF RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE
89-1107	Nat. Opinion Resrch Ctr	4/03/89	\$1,291.00	\$ 0.00	
89-1108	Northern Arizona Univ.	4/03/89	0.00	0.00	
89-1109	Brown University	4/03/89	0.00	0.00	
89-1110	PRC Computer Center, Inc	4/03/89	0.00	0.00	
89-1111	Nat. Radio Astron Observ	4/03/89	0.00	0.00	
89-1112	Univ. of Calif-Berkeley	4/03/89	0.00	0.00	
89-1113	Conf. Board Math. Sci.	4/03/89	0.00	0.00	
89-1114	Simco, Inc.	4/03/89	0.00	0.00	
89-1115	Math Policy Resrch, Inc.	4/03/89	0.00	0.00	
89-1116	College of Wm & Mary	4/24/89	0.00	0.00	
89-1117	Agbabian Associates	4/24/89	0.00	0.00	
89-1118	Agbabian Associates	4/24/89	0.00	0.00	
89-1119	Quantum Research Corp.	4/24/89	0.00	0.00	
89-1120	Quantum Research Corp.	4/24/89	327.00	0.00	
89-1121	Carnegie Inst. of Wash.	4/17/89	2,726.00	0.00	
89-1122	Carnegie Inst. of Wash.	4/17/89	0.00	0.00	
89-1123	State of Oregon	4/19/89	0.00	0.00	
89-1124	The Research Found-NY	4/19/89	0.00	0.00	
89-1125	Indiana University	4/19/89	0.00	0.00	
89-1126	Loyola Univ. of Chicago	4/19/89	0.00	0.00	
89-1127	Gravi-Mechanics Co.	4/19/89	29,456.00	27,500.00	
89-1128	Tulane University	4/25/89	0.00	0.00	
89-1129	College of Santa Fe	4/25/89	0.00	0.00	
89-1130	Smithsonian Inst Astrophy	4/25/89	3,413.00	3,413.00	
89-1131	North Dakota State Univ	4/25/89	0.00	0.00	
89-1132	NE Missouri State Univ	4/25/89	0.00	0.00	
89-1133	Amer Rsrch Ctr in Egypt	4/26/89	0.00	0.00	
89-1134	Virginia State Univ	4/26/89	0.00	0.00	
89-1135	Smithsonian Institution	4/26/89	17,385.00	17,385.00	
89-1136	Am Society for Eng Ed	4/26/89	0.00	0.00	
89-1137	Loma Linda University	4/26/89	3,000.00	0.00	
89-1138	Decision Sci Consort Inc	4/26/89	0.00	0.00	

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED	DOLLAR VALUE OF QUESTIONED COSTS	DOLLAR VALUE OF UNSUPPORTED COSTS	DOLLAR VALUE OF RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE
89-1139	Battelle Human Rscrch	4/26/89	\$0.00	\$0.00	
89-1140	Battelle Human Rscrch	4/26/89	0.00	0.00	
89-1141	Battelle Human Rscrch	4/26/89	0.00	0.00	
89-1142	Battelle Human Rscrch	4/26/89	0.00	0.00	
89-1143	University of Miss.	4/26/89	0.00	0.00	
89-1144	Math. Policy Resrch Inc	4/26/89	0.00	0.00	
89-1145	Toborg Associates, Inc	4/26/89	0.00	0.00	
89-1146	Roy F. Weston, Inc.	4/26/89	0.00	0.00	
89-1147	Urban Institute	4/26/89	0.00	0.00	
89-1148	James Madison University	4/26/89	0.00	0.00	
89-1149	State of Colorado	4/26/89	0.00	0.00	
89-1150	State of Massachusetts	4/26/89	0.00	0.00	
89-1151	LA County Mus of Nat His	5/16/89	262,315.00	69,689.00	
89-1152	Sonoscan Inc.	5/18/89	1,151.00	177.00	
89-1153	Am Assoc of Eng Soc Inc	5/18/89	6,371.00	5,544.00	
89-1154	ABK	5/18/89	0.00	0.00	
89-1155	Int Am Univ-Puerto Rico	5/18/89	0.00	0.00	
89-1156	Clarkson University	5/19/89	0.00	0.00	
89-1157	Agbabian Associates	5/19/89	16,418.00	16,418.00	
89-1158	Georgia State University	5/22/89	0.00	0.00	
89-1159	Computer Horizons Inc.	5/22/89	0.00	0.00	
89-1160	Am Inst for Resrch Calif	5/22/89	0.00	0.00	
89-1161	Univ of Calif-Irvine	5/22/89	0.00	0.00	
89-1162	Am Council on Education	5/22/89	0.00	0.00	
89-1163	Nat Optical Astronomy	5/22/89	0.00	0.00	
89-1164	Agbabian Associates	5/22/89	0.00	0.00	
89-1165	S B Barnes & Assoc.	5/22/89	0.00	0.00	
89-1166	Am Type Culture Collec	5/25/89	112,211.00	51,353.00	
89-1167	Kariotis & Associates	5/26/89	0.00	0.00	
89-1168	Nat Governors' Assoc	5/26/89	0.00	0.00	
89-1169	Utah State University	5/26/89	0.00	0.00	
89-1170	Agbabian Associates	5/26/89	0.00	0.00	
89-1171	Peat Marwick Main & Co	5/26/89	0.00	0.00	
89-1172	Urban Institute	5/26/89	0.00	0.00	
89-1173	State Univ of Iowa	5/26/89	0.00	0.00	
89-1174	State Univ of Iowa	5/26/89	0.00	0.00	
89-1175	Triple Vision, Inc.	5/31/89	31,252.00	31,084.00	
89-1176	Am Assoc of Phy Teachers	6/09/89	20,391.00	0.00	
89-1177	Nat Ctr for Eqk Eng Rsc	6/29/89	0.00	0.00	
89-1178	Assoc Univ Inc/Nat Radio	6/09/89	0.00	0.00	

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED	DOLLAR VALUE OF QUESTIONED COSTS	DOLLAR VALUE OF UNSUPPORTED COSTS	DOLLAR VALUE OF RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE
89-1179	Rancho Santa Ana Bot Gard	6/12/89	\$20,660.00	\$4,356.00	
89-1180	Consort for Math & Appl	6/12/89	16,850.00	0.00	
89-1181	NY Botanical Garden	6/12/89	20,565.00	9,205.00	
89-1182	Spelman College	6/12/89	0.00	0.00	
89-1183	Clemson University	6/12/89	0.00	0.00	
89-1184	Kentucky State Univ	6/12/89	0.00	0.00	
89-1185	Network Solutions, Inc	6/15/89	0.00	0.00	
89-1186	Va Poly Inst&State Univ	6/20/89	0.00	0.00	
89-1187	ABK	6/20/89	0.00	0.00	
89-1188	Agbabian Associates	6/20/89	0.00	0.00	
89-1189	Agbabian Associates	6/20/89	0.00	0.00	
89-1190	Rensselaer Poly Inst	6/22/89	0.00	0.00	
89-1190	Rensselaer Poly Inst	6/22/89	27,605.00	0.00	
89-1191	Bend Research, Inc.	6/28/89	0.00	0.00	
89-1192	Bend Research, Inc.	6/28/89	0.00	0.00	
89-1193	ITT Antarctic Serv, Inc.	6/28/89	0.00	0.00	
89-1194	Univ of South Carolina	7/03/89	25,946.00	0.00	
89-1195	Med Univ of SC	7/03/89	0.00	0.00	
89-1196	Univ of North Dakota	7/03/89	0.00	0.00	
89-1197	Computer Horizons, Inc.	7/03/89	0.00	0.00	
89-1198	Univ of Kentucky	7/03/89	0.00	0.00	
89-1199	Western Kentucky Univ	7/03/89	0.00	0.00	
89-1200	Education Dev Ctr	7/06/89	160.00	160.00	
89-1201	Med College of Wisc	7/06/89	0.00	0.00	
89-1202	Appalachian State Univ	7/06/89	0.00	0.00	
89-1203	Gulf Coast Resrch Lab	7/06/89	0.00	0.00	
89-1204	Radford University	7/06/89	0.00	0.00	
89-1205	Santa Clara Univ	7/06/89	0.00	0.00	
89-1206	Atlanta Thoughtworks One	7/11/89	29,397.00	0.00	
89-1207	Ctr Adv Study Behav Sci	7/11/89	667,939.00	354,428.00	
89-1208	Rocky Mountain Biol Lab	7/19/89	22,412.00	8,232.00	
89-1209	Quantex Corporation	7/19/89	38,844.00	0.00	
89-1210	Research Triangle Inst	7/19/89	2,731.00	0.00	
89-1210	Research Triangle Inst	7/19/89	0.00	0.00	
89-1211	Missouri Botanical Gdn	7/26/89	0.00	0.00	
89-1212	H G Pars Pharm. Lab Inc	7/26/89	0.00	0.00	
89-1213	Evaluation Tech Inc.	7/26/89	0.00	0.00	
89-1214	Five Colleges Inc.	7/27/89	1,407.00	0.00	
89-1215	Whitehead Inst for Bio	8/25/89	0.00	0.00	
89-1216	ITT Antarctic Services	8/25/89	0.00	0.00	

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED	DOLLAR VALUE OF QUESTIONED COSTS	DOLLAR VALUE OF UNSUPPORTED COSTS	DOLLAR VALUE OF RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE
89-1217	Univ of NC-Greensboro	8/25/89	\$0.00	\$ 0.00	
89-1218	Georgia Southern Coll	8/25/89	0.00	0.00	
89-1219	Morrison Knudsen Serv	7/19/89	0.00	0.00	
89-1220	Brown & Root Serv Corp	8/25/89	0.00	0.00	
89-1221	Antarctic Support Assoc	8/25/89	0.00	0.00	
89-1222	Raytheon Antarctic Serv	8/25/89	0.00	0.00	
89-1223	KMS Fusion Inc	8/25/89	<u>23,104.00</u>	<u>0.00</u>	
	Totals		<u>\$1,405,327.00</u>	<u>\$598,944.00</u>	

INTERNAL AUDIT REPORTS

89-2103	Audit of the Ocean Drilling Program Trust Fund Reports for the Fiscal Year Ending September 30, 1988	05/03/89
89-2104	Audit of the International Phase of Ocean Drilling Trust Fund Reports for the Fiscal Year Ending September 30, 1988	05/03/89
89-2105	Review of NSF's Third Party Draft System Within the Division of Administrative Services	07/27/89
89-2106	Review of NSF's Third Party Draft System Within the Division of Financial Management	09/13/89
89-2107	Review of End-of-Year Spending for Fiscal Year 1988	08/09/89

OVERSIGHT REPORTS*

AUDIT REPORT NUMBER	TITLE	DATE REPORT ISSUED	DOLLAR VALUE OF QUESTIONED COSTS	DOLLAR VALUE OF UNSUPPORTED COSTS	DOLLAR VALUE OF RECOMMENDATIONS THAT FUNDS BE PUT TO BETTER USE
89-3103	OIG Report on Overage Research Proposals as of 03/31/89	04/07/89			
89-3104	External Peer Oversight Review 2nd Quarter FY89	04/10/89			
89-3105	Conflicts-of-Interests Reviews: Intergovernmental Personnel Act Assignees Entering and Leaving - February 1989	05/12/89			
89-3106	Conflicts-of-Interests Reviews: NSF Staff and Rotators Entering and Leaving - December 1988	05/24/89			
89-3107	External Peer Oversight Review 3rd Quarter FY89	07/24/89			
89-3108	Compliance Review on OIG Submission of NSF Forms 681 and SFs 278	08/14/89			
89-3109	Conflicts-of-Interests Reviews: Intergovernmental Personnel Act Assignees Leaving - through June 1989	08/15/89			
89-3110	Conflicts-of-Interests Reviews: NSF Staff and Rotators Entering and Leaving - January-April 1989	08/15/89			

* Many of these oversight reports are brief and furnish level-of-compliance information to NSF management. For example, one monitors the number of proposals in process more than six months, several track scheduled external peer oversight reviews for approximately 200 operating programs, and many check for adherence to certain NSF conflicts-of-interests regulations as they apply to all new and leaving employees and intergovernmental personnel act assignees. These conflicts-of-interests reports facilitate the Foundation's policy of using active scientists and engineers to rotate into the agency at all NSF staff levels.

In addition to the reports cited, about 150 compliance audits were conducted on individual NSF proposal actions including post-award administration. These one-page reports of findings are accumulated and will provide a basis for assessing administrative, policy, and procedural compliance in proposal processing and grant administration across the Foundation.

TABLE I
INSPECTOR GENERAL ISSUED REPORTS
WITH QUESTIONED COSTS

	NUMBER	DOLLAR VALUE	
		Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the reporting period	53	\$4,317,326	\$988,879
B. Which were issued during the reporting period	25	1,387,782	581,399
Subtotal (A + B)	78	5,705,108	1,570,278
C. For which a management decision was made during the reporting period	23	960,918	N/A
(i) dollar value of disallowed costs		161,342	N/A
(ii) dollar value of costs not disallowed		799,576	N/A
D. For which no management decision has been made by the end of the reporting period	55	4,744,190	1,127,610
Reports for which no management decision was made within six months of issuance	31	3,382,354	546,211

TABLE II

**INSPECTOR GENERAL ISSUED REPORTS WITH RECOMMENDATIONS
THAT FUNDS BE PUT TO BETTER USE**

	Number	Dollar Value
A. For which no management decision has been made by the commencement of the reporting period	0	\$ 0
B. Which were issued during the reporting period	0	0
Subtotal (A + B)	0	0
C. For which a management decision was made during the reporting period	0	0
(i) dollar value of recommendations that were agreed to by management	0	0
• based on proposed management action	0	0
• based on proposed legislative action	0	0
(ii) dollar value of recommendations that were not agreed to by management	0	0
D. For which no management decision has been made by the end of the reporting period	0	0
Reports for which no management decision was made within six months of issuance	0	0

GLOSSARY OF AUDIT TERMS

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.

NATIONAL SCIENCE FOUNDATION
Office of Inspector General
1800 G Street, N.W.
Washington, D.C. 20550

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

OFFICE OF INSPECTOR GENERAL
SEMIANNUAL REPORT TO CONGRESS