Audits & Reviews

We are responsible for auditing grants, contracts, and co-operative agreements funded by NSF, and for reviewing agency operations to ensure that they are conducted effectively and efficiently. Many factors are used to determine what to audit or review, including requests by Congress, National Science Board members, key NSF managers, and other government officials. In selecting our audits, we also consider NSF strategic goals and management challenges, award recipients' prior experience in managing federal awards, and priorities set by Federal financial regulatory bodies and the OIG. We focus our audits and reviews on areas that present the most management and financial risk to NSF in accomplishing its scientific research and education goals effectively and efficiently. We attempt to identify these areas of risk proactively to prevent serious occurrences that could impede NSF's mission.

Our financial and compliance audits determine (1) whether costs claimed by award recipients are allowable, reasonable, and properly allocated to NSF's awards, and (2) if awardees had adequate procedures and controls to ensure compliance with Federal laws and regulations, NSF requirements, and the terms and conditions of the award. Performance audits and reviews evaluate the effectiveness and the efficiency of the administrative and programmatic aspects of NSF and awardee operations. In addition, by law we conduct the annual audit of NSF's fiscal year financial statements, including evaluations of internal controls and data processing systems.

HIGHLIGHTS

Significant Reports

Financial Statement Audit and Review of Information Systems

Improving financial management and information security have been important priorities of the Federal Government for many years. Current efforts are driven by *The President's Management Agenda*, which identifies improved financial management as one of the five government-wide initiatives. The President's goal is to ensure that Federal financial management systems produce accurate and timely information to support operating, budget, performance, and policy decisions.

Since 1990, Congress has enacted several laws designed to improve Federal financial management and information systems security. The Chief Financial Officer's Act of 1990, as amended, requires that Federal agencies prepare financial statements and the agency's OIG, or an independent public accounting firm selected by the OIG, audit these statements annually. The Government Information Security Reform Act of 2000 (GISRA) requires agencies to perform annual reviews and report to the Office of Management and Budget on their information systems security programs. In addition, Inspectors General are to provide independent evaluations of the information security programs and practices of their agencies. We contracted with the auditing firm KPMG, LLP to perform these reviews.

In the March 2002 Semiannual Report (page 20) we reported on the results of NSF's FY 2001 financial statement audit, which included the results of its information system security review. We also report on the results of our FY 2002 assessment of NSF's information systems security program required by GISRA and indicated that in this Semiannual Report we would discuss our *FY 2001 Management Letter Report*.

Joel Grover, Catherine Walters, John McCreary and Jannifer Jenkins (not pictured) received the PCIE/ECIE Award for Excellence in Audit.

The *FY 2001 Management Letter Report* contained detailed discussions on the internal control findings identified during the FY 2001 financial statement audit, including the reportable condition regarding post-award grant and asset management that was identified in the *FY 2001 Independent Auditor's Report.* The *FY 2001 Management Letter Report* also described the need for NSF to improve its cost accounting and performance measurement systems in order to better assess the effectiveness and efficiency of NSF's operating performance.

Specifically, the audit found that cost information for NSF activities are not reported on a regular basis thereby impairing management's ability to make informed operational decisions, precluding meaningful and timely reporting on performance measures, and increasing the risk of project cost overruns and program inefficiencies remaining undetected. NSF management did not concur with the findings related to cost accounting and performance measurement system deficiencies but agreed that cost accounting was a management challenge. Consequently, NSF retained a management-consulting firm to conduct an integrated performance, cost and budgetary strategy assessment for NSF, and to provide different scenarios for NSF to consider in addressing challenges identified in the financial management area.

The consultant issued a report in August 2002 identifying options for establishing additional cost accounting and performance measurement capabilities to satisfy the fundamental and long-term needs of NSF. As a result, NSF developed a draft action plan to achieve better alignment with resources and goals of the agency. This plan is being vetted through OMB for comment and consultation. Once a final plan of action is agreed to with OMB, NSF will initiate implementation of the plan. We are continuing to work with NSF to resolve these issues.

The *FY 2001 Federal Information System Control Audit Manual (FISCAM) Management Letter Report* also contained internal control findings and recommendations related to NSF's information systems environment. The management letter report discussed the reportable condition included in our *FY 2001 Independent Auditors Report* identifying weaknesses in NSF's electronic data information systems. It also reported on six other findings, including the need for NSF to ensure that a large contractor fully develops and implements an information security program in accordance with Office of Management and Budget and National Institute of Standards and Technology guidance. This weakness had been reported in the previous year but corrective measures had not been fully implemented. Management concurred with the recommendations in the report and has made progress in addressing the specific recommendations.

During this semiannual period we also completed our assessment of NSF's information security program required by GISRA and performed in conjunction with our ongoing FY 2002 financial statement audit work. The report, *FY 2002 Government Information Security Reform Act Independent Evaluation and FISCAM Management Letter*, identified ten findings, three of which we considered to be significant deficiencies[1]. The significant deficiencies involved a need for NSF to: formalize the authorities, responsibilities and agency positions charged with carrying out the agency's information security program; improve the design, administration and monitoring of access controls over critical internal NSF applications; and ensure that all of NSF's major systems are certified and accredited. NSF management concurred with the recommendations in this report but disagreed with the classification of the three findings as significant deficiencies.

The results of our FY 2002 financial statement audit will be reported in our next Semiannual Report.

[1] A significant deficiency is a weakness in a policy, procedure, or practice that could materially impact the effectiveness of the entity-wide security program.

Financial Management of Major Research Equipment and Facilities Projects

Providing effective management and oversight of large facilities and research equipment projects continues to be a major management challenge for NSF, and a continuing concern of Congress, as well as this office. Through FY 2002, NSF has provided well over $700 million from the appropriation account[2], to fund the construction of major research equipment and facilities that provide unique capabilities at the cutting edge of science and engineering. In earlier reporting periods, our audits identified needed improvements in NSF's policies and procedures for managing and overseeing large facility projects. In response, NSF developed the Large Facility Project Management and Oversight Plan, and is in the process of finalizing its Large Facility Project Guidelines and Procedures. Together, these policies and procedures are intended to provide guidance for managing all aspects of large facility projects, emphasizing fund control and effective project management.

New Audit Report Issued. At the request of the former Chairman of the Subcommittee on VA, HUD and Independent Agencies of the Senate Appropriations Committee, we performed an audit of the funding for major research equipment and facilities. The purpose of our audit was to determine if NSF solely used its Major Research Equipment appropriation to fund the construction and acquisition costs for major research equipment and facilities, and to determine if NSF had established adequate management controls to ensure that these expenditures were derived solely from MRE appropriations.

We found that, although NSF had made a concerted effort to improve its management and oversight of projects receiving funding from the MRE appropriation account, more needed to be done to improve its financial management of these projects. NSF's policies and practices did not yet provide adequate guidance for program managers to oversee and manage the financial aspects of major research equipment and facilities. These policies had allowed NSF to use multiple appropriation accounts to fund the acquisition and construction costs of major research equipment and facilities, and led to inconsistencies in the types of costs funded through the MRE account. Additionally, NSF's practice was to track only those costs funded from the MRE account and not the full cost of the major research equipment and facilities. As a result, NSF could not ensure that it stayed within its authorized funding limits or that it provided accurate and complete information on the total costs of major research equipment and facilities to decision-makers for use in evaluating performance.

[2] Formerly the Major Research and Equipment account. Congress renamed the account the Major Research Equipment and Facilities Construction (MREFC) in fiscal year 2002 to better reflect the account's intent.

In the report, we recommend that NSF improve its financial management and accounting policies and procedures to ensure that it manages and oversees the full cost of major research equipment and facilities. These improvements must ensure that NSF tracks the total costs of the major research equipment and facilities in accordance with Federal accounting and management guidance, develops the appropriate financial management practices to oversee its major research equipment and facilities, specifies how cost overruns are to be handled, and uses appropriation accounts in accordance with their stated purpose. In addition, NSF needs to provide training on the updated policies and procedures to all NSF personnel involved with the funding and accounting for major research equipment and facilities.

NSF did not concur with the report findings. NSF believes its use of MREFC funds has been consistent with the purposes for which the appropriations were made. NSF also believes that while its financial accounting system does not formally track all of the costs of major research facilities, it is nonetheless able to accumulate and report those costs through other records and manual processes such that accurate and complete information is available to decision makers, when necessary. While disagreeing with the findings, NSF has agreed to address our recommendations and indicated that its corrective actions were well under way based on an earlier audit of a major facility project.

Status of NSF's Implementation of Audit Recommendations Related To Large Facilities Projects. In the March 2001 Semiannual Report, we reported on our audit of the financial management of a large facility project. In that report, we recommended several actions to help NSF improve its large facility project administration. During this reporting period, NSF provided the National Science Board with an updated assessment of the project's cash flow plan, and amended its Grant Policy Manual to clarify the funding source for construction expenses for these projects. At the end of this reporting period, actions to address three of the seven recommendations remain in process, pending the issuance of NSF's Guidelines and Procedures to improve the financial management over the large facilities projects.

Cost Sharing

As we reported in our March 2002 Semiannual Report (pp. 23-30), to assess the extent of cost-sharing problems in NSF awards we have undertaken two audit initiatives, one at five campuses of a western state university system and the other at eight geographically diverse institutions throughout the United States. During this period, we are reporting on the last of these 13 audits. We also are providing updates on NSF's actions to resolve three of our prior cost-sharing audit reports.

A Northeastern University Lacks Support for $3.8 Million of Required Cost Sharing

We completed a cost-sharing audit at a northeastern university that received five NSF awards with $3.8 million of required cost sharing during the audit period 1995 through 2001. During this same time period NSF funded more than 1,000 awards at this university, for an investment of $612.8 million. On 174 of these awards, the university promised approximately $31 million of cost sharing. Thus the $3.8 million of cost sharing required on the five awards included in our audit represented approximately 12 percent of the total cost sharing the university promised on the NSF awards it received during this time period.

Our review found that the university did not have an adequate internal control structure for managing, accounting for, and reporting on its cost-sharing obligations. Individual university departments did not track cost sharing in separate accounts and could not support the amount of cost sharing claimed for a specific NSF award. We found that the departments tracked cost sharing in multiple accounts, some of which commingled both cost-sharing expenses and other expenses unrelated to NSF projects. In addition, the university did not monitor subrecipients' cost sharing, resulting in inadequate documentation to support the existence of, or the valuation for, claimed cost sharing.

As a result of these problems, we were unable to conclude whether or not the $3.8 million of claimed cost sharing was allowable, reasonable, and allocable under Federal requirements. More generally, the inadequacies in the system for accounting for cost sharing increase the risk that the university may not be properly accounting for more than the approximately $31 million of cost sharing promised on other NSF awards funded concurrently with the five audited awards. We do not believe the university placed sufficient priority on ensuring compliance with cost-sharing guidelines. In addition, contrary to NSF requirements, the university did not submit annual cost-sharing reports. As a result, NSF lacked adequate information to effectively administer the five awards.

We recommended that NSF perform a follow-up on-site review to ensure that the university: 1) take action to separately account for its cost-sharing obligations on each Federal award; 2) monitor its departmental and subrecipient cost sharing, including periodic reviews and site visits and; 3) provide certified cost-sharing reports to NSF. The university acknowledged that its cost-sharing accounting system had flaws, but thought the report overstated the seriousness of the findings. Nevertheless, it agreed to track the cost-sharing in separate accounts to support cost sharing on individual NSF awards, and to improve its monitoring by requiring subrecipients to certify on each invoice that claimed cost-sharing expenses were actual expenses incurred for NSF awards.

Southern University Unable to Document $414,477 of Subrecipient Cost Sharing

We also conducted a cost-sharing audit at a Southern university that received two NSF awards requiring cost sharing of $2.9 million, for which the university claimed $3.2 million. Of this amount we found $466,645 of unallowable and unsupported cost sharing for salaries, fringe benefits, indirect costs, and subaward expenses resulting from non-compliance with Federal requirements. Specifically, the university claimed $414,477 of subaward costs that were not supported by documentation. The university did not have an adequate system for monitoring subrecipients' cost sharing and had not included a clause in its subaward contract specifying subrecipient responsibilities for contributing, accounting for, documenting, and reporting required cost sharing to the university.

The university also claimed $26,458 for staff salaries that were not supported by time cards, and $10,845 and $14,865 for unallowable fringe benefit and indirect costs. Additionally, the university did not accumulate cost sharing in separate accounts, relied on financial information that was not derived from its official accounting records, and did not have a system to provide for safe storage of all time-keeping records for the required three years. In seven cases, either the university did not submit required annual cost sharing certifications to NSF or an independent Authorized Organizational Representative did not sign the certifications. Because the university provided cost sharing greater than the NSF award required, it met its cost sharing on one of the awards. However, it had a shortfall of $239,805 on the second award (although the university still had time to address the shortfall prior to award expiration). As a result of subrecipient monitoring inadequacies, unsupported costs, and lack of cost-sharing certifications, NSF program officers had less assurance that program objectives funded by cost-sharing requirements were being met.

We recommended that NSF ensure that the university develops and implements 1) written policies and procedures for monitoring subrecipient cost sharing and providing the annual cost-sharing reports certified by an Authorized Organizational Representative, and 2) a system that tracks cost sharing in separate accounts and provides for the retention of time-keeping record for three years from the date of the submission of the final project report. The University agreed to implement two of our recommendations but did not agree that its monitoring of subrecipient cost sharing was inadequate. We have forwarded the audit report to NSF's Division of Acquisition and Cost Support for audit resolution.

Three Cost Sharing Audits Resolved

During this reporting period, NSF resolved three audits with cost-sharing findings that were previously reported in our March 2002 Semiannual Report (pp. 23-28). In two of the audits, we found that the institutions depended on a flawed accounting system for tracking cost sharing:

- At a western state university campus NSF funded 30 awards with $2.3 million required cost sharing. We found that the university did not have a system to track, document, certify, and report the amount of cost sharing it had contributed to NSF awards. For example, the university commingled cost sharing expenditures with other costs in department cost accounts. Also, to support $522,025 of claimed cost sharing for faculty salaries, the university provided documentation that was certified up to six years after-the-fact. We recommended NSF verify that the university had implemented adequate award management controls and accounting systems to track, document, certify, and report its cost-sharing obligations in accordance with NSF and Federal award requirements. NSF found that the university's revised cost-sharing policies and procedures would, if properly implemented, address the deficiencies. In one year NSF will review the revised cost-sharing system to ensure compliance with Federal administrative requirements.

- A northeastern university also commingled cost-shared expenses with other costs, and as a result overcharged NSF $48,408. During audit resolution, NSF determined that the university had adjusted its unbilled award costs to correct for the overcharge but that the university's accounting system still needed improvements. Thus, NSF advised the Office of Naval Research (ONR), the university's cognizant agency, to follow up on the university's attempts to fully automate its accounting system. Finally, we found that the university's time and effort reporting system did not comply with Federal requirements for after-the-fact certification. During audit resolution ONR agreed that during its next review of the university, it would examine the compliance of university's time and effort reporting system with Federal requirements for after-the-fact certification.

- A college in the central U.S. received an $186,810 award from NSF requiring cost sharing of $515,000. The college claimed the total amount of required cost-sharing, but we found that $446,446 was unallowable because the funds were spent for fiber optics and library initiatives unrelated to the project. NSF eliminated this cost-sharing requirement because it concluded that the NSF program officer for this award had erroneously accepted both unrelated initiatives as part of promised cost sharing.

Urban School District Reviews

In the March 2002 Semiannual Report (page 36), we reported that our work in progress included audits of urban school districts awardees. In fiscal year (FY) 1999, NSF established its Urban Systemic Program (USP) in science, mathematics, and technology education through the merger of two education programs: the Urban Systemic Initiatives (USI) Program and the Comprehensive Partnerships for Science and Mathematics Achievement. Through this combined effort, NSF seeks to stimulate interest, increase participation, improve achievement, and accelerate career advancement and success of all students of the participating urban school districts.

In August 2000, NSF had 24 active USP/USI awards ranging in value from $1.2 million to $15.1 million. The estimated total value of the 24 active awards was approximately $248.9 million.

Because of NSF's significant investment and the fact that prior audits of these types of awardees identified significant questioned costs and compliance and internal control problems, we initiated an audit of eight of 24 USP awards. Together these eight awards represent $120.5 million or 48 percent of the $248.9 million active USP/USI awards as of August 2000. Currently, we have completed four of the audits.

Ms. Christine Lewis, audit program specialist, retired in November after 36 years of service to the Federal Government, 30 of which were spent with the NSF Office of Audits. Ms. Lewis' office management skills, initiative, and diligence have contributed greatly to the efficient operation of the Audit Office. She shared her institutional memory and experience with all staff who needed her help, and will be missed for her warm personality and friendship. We wish her a long, and happy retirement.

We found that two of the four awardees had adequate systems of internal control for administering their NSF awards and appropriately claimed costs allowable under NSF and Federal requirements. However, the other two school districts had deficiencies in their internal control systems for cost sharing, payroll, and participant support costs.

Cost Sharing. Federal guidelines require that cost sharing is (1) verifiable from the recipients records, (2) not funded by other Federal grants, and (3) necessary for the accomplishment of the program objectives. However, the cost sharing amounts claimed by two school districts were not verifiable from their records because some of the amounts were based on budgeted rather than actual costs and the allocation methods used were not documented. Also, the claimed cost sharing inappropriately included costs borne by other Federal grants, as well as expenses related to the school districts' ongoing programs rather than the specific objectives of the NSF award. As a result, for the first school district $9.5 million, or 100 percent of its cost sharing was not supported and was at risk of not being met before the expiration of the grant. In the case of the second school district, twenty-four percent of the total claimed cost sharing or $1.7 million, was not allowable. However, the amount was not questioned because the school district had other allowable cost sharing expenditures sufficient to meet the award requirement. This condition occurred because the school systems did not have written policies and procedures for accounting and reporting of cost-sharing for the NSF awards, and the responsible awardee staff did not understand Federal requirements for developing and maintaining appropriate records and documents to support the claimed cost sharing. The awardees agreed with our findings and recommendations and issued written procedures for the administration of cost sharing.

Payroll Records. Federal requirements state that salary and wages will be supported by time and effort reports. While one school district required that its Project Director review and certify time records, we found that the Project Director did not perform this review. As a result, a large percentage of the time records supporting the $2.8 million in salaries and wages claimed on the NSF award were not available or were incomplete. Only by conducting extensive interviews with the school district's staff were we able to confirm the reasonableness of the labor charges. We recommended that the awardee adhere to its existing policy that requires the completion and proper review of employee time and effort documentation as a basis to certify the payroll charges. The awardee agreed to adhere to its policy.

Participant Support. NSF requires that funds provided for participant support may not be used by grantees for certain expenses not specified by NSF at the onset of the award without specific prior approval of the cognizant NSF program officer. However, participant support funds totaling $616,048 were used by one school district to purchase technical software packages, although the NSF program officer disapproved the awardee's request. We recommended that the awardee adjust its accounting records to reimburse the award for the unallowed software costs of $616,048 and develop and implement procedures that will ensure that only allowed and authorized costs are charged to NSF awards. The awardee agreed with our recommendations and indicated that it has taken corrective action.

Community Colleges Audits

In the March 2002 Semiannual Report (page 37), we reported that our work in progress included audits of community college awardees. Community colleges historically have received approximately $30 to $40 million in annual NSF funding, and the agency plans to increase funding to these institutions in the future.

As was the case with urban school districts, prior audits of community colleges have identified questioned costs and grant accounting control weaknesses. To assess the current extent of these problems, we initiated audits at 13 community colleges in FY 2002 that had received 75 NSF awards totaling $44.8 million. The objectives of the audits were to determine whether costs charged to the NSF awards by the community colleges were allowable, allocable, and reasonable, and if the community colleges had adequate systems of internal controls in place to properly administer, account for, and monitor NSF awards in compliance with NSF award terms and conditions and other Federal requirements.

We have completed four of the 13 community college audits, and identified significant weaknesses in some of the colleges' systems for accounting for and administering a total of $9.8 million in NSF grants. As indicated in the following table, the colleges had particular problems in subaward monitoring, labor effort reporting, procuring of consulting services, and accounting for indirect costs. Together these cost categories represented $6.1 million of the total $9.2 million of costs claimed by these four colleges. The reason for these problems was that the awardees were not aware of the award and Federal requirements. If the community colleges fail to address these instances of noncompliance and internal control weaknesses, similar problems are likely to recur on other existing or future NSF awards to these institutions.

Subaward Monitoring. Federal guidelines state that awardees are responsible for managing and monitoring each project, program, subcontract, function or activity supported by the award. We found that two of the community colleges did not require subrecipients to submit documentation supporting their claims for reimbursement. Also, one of these awardees did not review the audited financial statements of its subrecipients to ensure no accounting or other grants management problems were reported. These two awardees claimed $3.3 million in subcontract costs, or 43% of their total claimed costs. Failure to obtain supporting documentation and review audit reports of subcontractors reduces the college's ability to manage expenditures and activities by subrecipients, which are supported with NSF funds. We recommended that the colleges establish adequate subrecipient monitoring procedures. In response, both colleges agreed to evaluate their current procedures.

Labor Effort Reports. Federal guidelines stipulate that salary and wages will be supported by time and effort reports. Two community colleges did not require that

Common Community College Award Problems

Awardee	Claimed Costs $	Questioned Costs $	Inadequate Subaward Monitoring	Lack of Labor Effort Reports	Consultant Verification of Hourly Pay and/or Selection Problems	
Western Community College	4,803,713	24,578	X	X	X	X
West Coast Community College	2,553,330	51,842	X	X	X	
North Central Community College	1,000,000	39,296				X
Southeastern Community College	825,720	0				N/A
Total	9,182,763	115,716				

all salary and wage costs be supported with after-the fact labor activity reports, which indicate the level of effort expended on the award. Therefore, the colleges were not able to provide assurance that the salary and wages and the related fringe benefits charged to NSF were allowable. One awardee has amended its labor effort reporting procedures, and the other awardee agreed to implement the procedures necessary to meet the requirements.

Consultant. Federal guidelines stipulate that awardees should document its procurement methodology and the basis for contractor selection, and perform a cost/price analysis on the proposed contract amount. Two community colleges did not document the selection process they used in awarding consultant agreements. One of the colleges used several consultants that were specifically named in the award proposal, but was not aware of the requirement to document the selection process. Also, one of the colleges did not have policies in place to perform a cost/price analysis of the consultant services. Without documenting the selection process or performing a cost/price analysis, it is difficult for the college to establish that a fair and unbiased process took place or that it obtained the best price for services obtained. Both colleges agreed to evaluate their procedures.

Indirect Cost. Federal guidelines stipulate that awardees should calculate indirect costs by applying the Federal negotiated indirect cost rate to the direct cost base. One college claimed $5,920 of indirect costs on unallowable direct costs. Another college claimed $7,491 more indirect costs than were allowable under the rate and the direct cost base provided for in the grant agreement. NSF management resolved this finding during this reporting period.

Other Reports

Controls Over Credit Card Programs

During this semiannual period, we completed two audits of NSF credit card programs: purchase cards and travel cards. While agencies can receive rebates based on the volume of charges on these cards, the cards also pose financial risks to both the agency and the individual employee. Our audits examined the controls NSF has in place over its purchase and travel card programs. We found that, while NSF is taking action to improve its management of both of these credit card programs, supervision and oversight controls need to be strengthened.

In our audit of NSF's purchase card program, we found that NSF has taken several actions to improve the purchase card program in response to recommendations in a previous OIG report.[3] Purchase cards are issued to certain employees for the

[3] *Internal Controls Over Purchase Card Use in BIO Need Improvement*, OIG Report Number 00-2008, September 29, 2000.

purpose of paying for purchases for the official business use of the organization. Because the financial responsibility for paying the credit card balance rests with the agency, it is important that these purchases be independently reviewed and approved as authorized for payment. However, we were unable to determine in a number of cases whether the officials responsible for approving the credit card purchases were performing the required independent review. Without this key program control, potentially abusive transactions can occur and go undetected. Furthermore, we found instances of irregular transactions, as well as lax security over custody of the credit cards. We recommended that NSF further strengthen its internal controls over the purchase cards to include providing specific guidance and training for personnel responsible for reviewing and authorizing purchases for payment, and reemphasizing to cardholders their responsibility to protect and secure the purchase cards.

In our audit of NSF's travel credit card program, we found that while NSF is effectively monitoring and managing delinquent travel card accounts, its policies and practices do not yet address monitoring the unauthorized use of travel cards. Travel cards are issued to employees to pay for official government travel expenses such as hotels, transportation costs, and meals, during periods of authorized travel, and financial responsibility for the outstanding credit card balance rests with the individual employee. NSF has implemented a proactive process to monitor delinquent travel card accounts and establish a salary-offset program for those employees whose account balances are severely delinquent. Because these delinquencies can negatively affect the amount of the credit card rebate the agency receives, as well as harm the cardholder's personal credit rating, the proactive monitoring program is beneficial to both the agency and its employees.

However, we also found that NSF does not have a similar program to monitor unauthorized use of government travel cards. Our audit indicates that some employees have used their government travel cards for automated teller machine (ATM) withdrawals during periods when they were not on authorized travel. These actions not only violate Federal ethics laws and the credit card agreement, they also artificially inflate the amount of the credit card rebate the agency receives. We recommended that NSF expand its oversight of travel card activity to include detecting and addressing employee's unauthorized use of travel cards.

Workforce Planning

The Senate Subcommittee on VA, HUD, and Independent Agencies requested that the OIG analyze the adequacy of the agency's staffing and management plans in light of the efforts to expand NSF over the next five years. We found that although NSF does not currently have a comprehensive workforce plan, it is contracting for a multi-year *business analysis* of its operations that will include a human capital management plan identifying its future workforce requirements.

Our review of the statement of work for the contract indicated that it is thorough except that it provides for neither a human resource planning capability within NSF nor a process for monitoring, evaluating and revising the plan on an ongoing basis. Further, given the extensive scope, cost, and duration of the contract, estimated at approximately $15 million over three to four years, we believe that NSF needs to take a more active role in monitoring the contractor than is suggested in the statement of work. In response, NSF promised to play an active role in monitoring the contract and has since established a set of working groups with representatives from many areas of the Foundation to manage the major aspects of this contract. In addition, the Advisory Committee for Business and Operations, an external panel, is advising NSF on issues of concern. The agency also noted that the COTR for this contract spends about two thirds of his time monitoring and overseeing the activities of this contract.

Concerns Raised About NSF Acceptance of Certain Travel Reimbursements From Awardees

NSF initiated an Industry/University Cooperative Research Centers (IUCRC) program in 1973 to develop long-term partnerships among government, academia, and industry. NSF provides small awards of $50,000 to $100,000 per year for up to ten years, and Center members (including both university and business partners) provide additional support for Center research projects. Each Center has an Industrial Advisory Board (IAB) that meets semiannually to review activities and select new research projects. For many years NSF program officers have attended IAB meetings to facilitate administration of the IUCRC program, and Centers have used members' fees to reimburse NSF for the associated travel costs.

We reviewed NSF's practice of accepting travel reimbursement from IUCRC awardees for program officers' attendance at IAB meetings to determine whether NSF may properly receive such payments. We found that annual receipt of approximately $34,000 in travel reimbursement from IUCRC awardees, raised concerns about the appearance of a conflict of interest, given NSF's responsibility for monitoring award performance and making future award decisions.

NSF used this method to pay for its program officers' attendance at Centers' IAB meetings because, due to a limited travel budget and other travel priorities, the NSF program office was not able to pay the costs for its program officers to attend the IAB meetings. Therefore, without reimbursement from IUCRC awardees, travel to non-mandatory IUCRC advisory board meetings would be less likely. In addition, NSF's Office of General Counsel (OGC) had advised the agency that it could accept travel reimbursement from IUCRC awardees. OGC concluded that NSF could accept IUCRC reimbursements under NSF's statutory gift acceptance authority, although a decision by the Comptroller General suggests that such reimbursements were not "gifts" because they were not provided "without consideration".

We concluded that a preferable method of funding travel to IAB meetings was for NSF to allocate part of its $15 million travel budget for its program officers to attend the IUCRC IAB meetings. In its response, NSF disagreed that accepting travel reimbursements from IUCRC awardees is contrary to NSF or Federal policy. Nevertheless, NSF management indicated that it will no longer accept IUCRC membership fees to reimburse program officers' travel expenses to IAB meetings and will utilize alternative NSF budget resources, including administrative cost recovery funds from other agencies previously waived by NSF, to pay for these costs.

Indirect Cost Audits

About one-third of all costs charged to NSF awards are indirect costs. Unlike direct costs, indirect costs are not tied to specific projects, but are allocated to NSF by means of a negotiated indirect cost rate. When NSF provides the largest dollar value of Federal awards to an organization, it is usually designated the cognizant agency, responsible for negotiating and approving indirect cost rates for that organization on behalf of all Federal agencies. NSF currently negotiates indirect cost rate agreements with approximately 150 mostly non-profit institutions, which have received approximately $270 million annually from NSF.

Because non-profit institutions often have limited staff and/or experience in administering Federal awards, we initiated audits of the indirect cost rates of ten non-profit organizations. These organizations receive more than a total of $70 million in funds, including more than $15 million in indirect costs. During this reporting period we completed one of the ten indirect cost rate audits.

New England Scientific Society Over-Recovers $240,245 in Indirect Costs

We audited a New England scientific society's indirect cost proposals for the years ended 1998-2000. We found that the institution over-recovered indirect costs totaling $240,245, or 30 percent of the total claimed indirect costs on ten NSF awards. This occurred primarily because, contrary to Federal requirements, the society misclassified $1.4 million of direct program costs as indirect costs. The society did not understand that mission-related activities should be classified as direct costs, not indirect costs. We found that clear policies and procedures are needed to ensure that the society's future indirect cost rate proposals accurately classify its direct and indirect costs. In addition, we found a number of other significant problems with the society's indirect cost accounting process:

- The institution did not have an adequate system to track, document, and certify the labor effort of staff who allocated their time to both direct and indirect activities, resulting in $806,180 of unsupported salaries and wages in the indirect cost pools used to calculate proposed indirect cost rates.

- The society did not calculate a separate indirect cost rate for its research center in Washington, D.C., which may incur indirect costs at a different rate from the one at which the society's headquarters office in New England incurs indirect costs.
- The society submitted its indirect cost proposal to NSF only every second year, thus preventing NSF from taking timely corrective action.

Accordingly, we made several recommendations to improve the society's written policies and procedures for classifying direct and indirect costs and its processes for tracking, documenting, and certifying monthly labor distributions reports. We also recommended that NSF require the society to develop a separate indirect cost rate for its off-site Washington D.C. location, and to submit indirect cost proposals to NSF annually.

Since the society's indirect cost rate was a fixed rate, which is not subject to adjustment, NSF may not recover the overcharged costs. However, by addressing the accounting weaknesses in the society's indirect cost calculation process, NSF can better ensure the accuracy of future indirect cost charges. We estimate that based on the society's approximately $1.2 million annual expenditures of NSF funds, the implementation of our recommendations could save NSF as much as $444,103 in indirect costs over the next five years.

The institution disagreed that it had misclassified $1.4 million of direct program costs as indirect costs, that its timekeeping system was inadequate, and that it needs to modify its system for recording grant costs. We have forwarded these matters to NSF's Division of Acquisition and Cost Support for audit resolution.

A-133 Related Reviews

Non-Federal entities are responsible for arranging A-133 audits and submitting the reports through the Federal Audit Clearinghouse within nine months after the end of their fiscal year. Our office receives and performs a limited review of the A-133 reports submitted directly to us by the Federal Audit Clearinghouse and those that are continuing to be submitted directly from the auditees. During these reviews we seek to identify trends in the nature of the independent auditor's findings that suggest systemic weaknesses in the awardee's award administration and compliance program and/or policy implications for NSF program management. In this reporting period, we reviewed 84 A-133 audit reports with NSF expenditures of $958.8 million dollars for fiscal years 1997 through 2001. In total the auditors questioned $172,231 of NSF-funded costs and cost sharing claimed by award recipients. The majority of reports were for 2000 and 2001. After our review, we forwarded 69 reports with questioned costs, internal control weaknesses, and/or findings of non-compliance with Federal laws and regulations to NSF's Division of Acquisition and Cost Support for audit resolution.

Our office also continued to examine Management Letters, which report internal control weaknesses that are generally less significant than those reported in the A-133 report, but still require management's attention. Our review of 35 Management Letters this reporting period identified issues related to grantees' financial management systems, policies and procedures, as well as business continuity plans, information technology security and other IT issues. We forwarded the Management Letters to NSF's Division of Contracts, Policy and Oversight to inform them of internal control weaknesses among NSF awardees. In addition, we plan to use this information to identify systemic weaknesses for future audits and reviews.

Corrective Action Prompted by Previous Audit Findings

Eastern Not-For-Profit Improves Internal Controls and Compliance Over Administering NSF Awards

In our March 2002 Semiannual Report, we reported on an audit of an eastern not-for-profit organization whose purpose is to promote and conduct geophysical investigations of the earth's interior. We identified significant internal control and compliance problems in the organization's administration of its two $104.6 million cooperative agreements. NSF verified that corrective actions have been taken to resolve all recommendations. Specifically, the organization reported that it would retain all accounting records to support claimed costs in the future for the full time required under the NSF award agreement. Also, the organization has written policies and procedures to enhance its oversight of subrecipient monitoring, and revised its time and effort reports to comply with Federal requirements. Finally, NSF agreed to review and negotiate indirect cost rates with the organization annually to ensure that the accounting of direct and indirect costs is proper.

Mid-Atlantic Education Consultant Offsets Disallowed Costs, Improves Accounting Procedures

In our September 2001 Semiannual Report (pp. 16-18), we reported on three NSF contracts issued to a mid-Atlantic education-consulting firm. Of $6.4 million in costs and fees claimed by the contractor, we questioned $677,556 primarily for over billed indirect costs, costs related to consultants who were not formally approved by the NSF contracting office through contract modifications, and various unsupported expenses. We also reported another $191,484 in indirect costs as unresolved because the contractor had not made indirect cost data available to NSF or to us for our review at the time of audit. In addition, we reported a number of other weaknesses in the contractor's financial management processes.

Of the total $869,040 in questioned and unresolved claimed costs, NSF allowed $584,387 after review of additional documentation related to indirect, consultant, and other costs. NSF disallowed the remaining $284,653, but allowed the contractor to use unclaimed indirect costs and unpaid fees on contracts as a form of repayment. The contractor also provided all required proposals for final indirect cost rates to NSF that were not previously submitted. They also reported to NSF that as a result of the audit, systems were improved to minimize the chance of claiming unallowable costs. Invoices are now prepared directly from data in the accounting system, and improved timekeeping procedures have been established.

NSF Implements Procedures to Oversee Antarctic Contractor's Use of Funds for Major Research Equipment

NSF contracts with a few corporations to provide the logistics, operations, engineering and construction support for the United States Antarctic Program. In our March 2002 Semiannual Report (page 31), we reported that a former contractor had improperly used approximately $11.9 million in Major Research Equipment (MRE) funds (that are restricted by NSF for use on capital expenditures) to pay for operations and contract closeout costs. The contractor returned the funds and NSF subsequently reimbursed the contractor for its allowable operations and contract closeout costs. In the audit, we also questioned $23,821 in fringe benefit costs. NSF indicates that it accepted the contractor's adjustment for this amount during contract closeout.

The practice of the former contractor has been discussed with the new contractor to prevent future misuse of MRE funds. For NSF's current contract, it revised the procedures for the request, payment, and reporting of MRE funds, and ordered the current contractor to refrain from commingling funds from various appropriations or using them for purposes other than the specific purpose for which they were identified. Additionally, to ensure that the contractor does not overspend, NSF now requires the current contractor to submit requests for drawing down funds to program and administrative officials that are supported by a detailed report of the funds obligated, requested and the remaining balances by appropriation type. At NSF's request, we have included an audit of the current contract from its inception in our FY 2003 Audit Plan.

Work In Progress

Quality Control Reviews of A-133 Audits

Non-Federal entities that expend $300,000 or more in a year in Federal awards are required under the Single Audit Act of 1984, as amended, to have a single or program-specific audit conducted for that year. OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations,* provides implementing guidance for conducting these audits of states, local governments, and non-profit organizations expending Federal awards. Reports prepared by independent auditors in accordance with this Circular are referred to as A-133 audits. The purpose of these audits is to provide Federal agencies with information on how well award recipients manage and spend Federal funds. NSF relies on the A-133 reports for making award decisions and for ensuring post award accountability of its funds.

In its response to the FY 2001 Independent Auditors Report, NSF wrote that as part of its "post award monitoring procedures" it reviews OMB Circular A-133 audit reports. Given that NSF makes $4.5 billion in grant awards each year, the quality of A-133 audits is a critical element to NSF in meeting its post award oversight responsibilities. However, recent Quality Control Reviews (QCR) conducted by other Federal agencies raise concerns about the quality of audits conducted pursuant to the Single Audit Act. Some have identified significant audit quality problems and have reported that these problems may be pervasive. In addition, the extent of audit coverage NSF awards receive in these audits is unclear since NSF awards are generally small relative to other Federal awards.

Consistent with the OIG's responsibilities under the Single Audit Act and to address quality concerns in a process that is material to NSF's post award administration procedures, the OIG has identified this area as a new strategic focus of its annual audit plan. In FY 2002, we conducted one QCR and will expand our QCR efforts in FY 2003 to review the audits of three additional organizations for which NSF is the largest Federal funding agency. Our goal is to complete 18 QCRs by 2007. Our office also is participating in a recently formed Federal OIG working group to explore the practicality of conducting quality control reviews of a statistically significant sample of A-133 audits. This statistical assessment is part of a longer-term Federal OIG effort to assess the extent to which agencies can rely on the A-133 audits to provide assurance that awardees are properly accounting for and managing Federal funds.

Committees of Visitors

NSF relies on committees of external experts to provide evaluations of its scientific programs. NSF's Committees of Visitors (COVs) provide program assessments that are used both in program management and in performance reporting. This audit will examine if NSF is evaluating and using these committee reports to better manage its programs and operations and whether the process for developing the reports and the use of the reports can be improved.

Award Administration Best Practices

To assist NSF in its efforts to assess scientific progress and ensure effective financial and administrative management of its awards, we are conducting a best practices review. We are studying how seven Federal, state, and private grant-making organizations administer their awards, and document their management and oversight policies and practices. We are meeting with representatives from these organizations to better understand their policies and what they consider to be their best practices.

NSF Awards to Foreign Organizations

Over the past five years, NSF has awarded $60.5 million to 24 foreign institutions. Because foreign entities are less likely to be aware of U.S. requirements, have different accounting practices, and sometimes receive less NSF oversight, we consider these foreign entities to be at increased risk for financial problems and lack of compliance with award requirements. For example, in a recent OIG audit of an international research institute, we found for example that the organization inappropriately invested NSF funds in the stock market.

OIG auditors visit European based institute that receives NSF funding.

Our audit will evaluate the adequacy of NSF processes and controls for overseeing and monitoring foreign institutions and determine whether foreign grantees are administering their awards in accordance with award terms and conditions. Over the next year we plan to review four foreign grantees that received $46 million or 76 percent of the total NSF foreign funding.