



SEMIANNUAL REPORT TO THE CONGRESS

March, 2004

Office of the
Inspector General

About The National Science Foundation...

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

NSF invests approximately \$5 billion per year in almost 20,000 research and education projects in science and engineering, and is responsible for the establishment of an information base for science and engineering appropriate for development of national and international policy. Over time, other responsibilities have been added including fostering and supporting the development and use of computers and other scientific methods and technologies; providing Antarctic research, facilities and logistic support; and addressing issues of equal opportunity in science and engineering.

... And The Office of Inspector General

NSF's Office of Inspector General promotes economy, efficiency, and effectiveness in administering the Foundation's programs; detects and prevents fraud, waste, and abuse within NSF or by individuals that receive NSF funding; and identifies and helps to resolve cases of misconduct in science. The OIG was established in 1989, in compliance with the Inspector General Act of 1978, as amended. Because the Inspector General reports directly to the National Science Board and Congress, the Office is organizationally and operationally independent from the agency.

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From the Inspector General

This report highlights the activities of the National Science Foundation (NSF) Office of Inspector General for the six-month period ending March 31, 2004. The past six months have been extremely productive. Our office issued 10 audit reports that contained \$330,037 in questioned costs and made recommendations that would put \$7,400,000 in funds to better use. We closed 28 civil/criminal cases and 32 administrative cases, and our investigations recovered \$147,978. In addition, two cases were referred to the Department of Justice and three administrative cases were forwarded to NSF management for action during this period.

Research in basic science continues to make a significant contribution to innovation and economic growth. NSF is the primary source of federal funding for basic science and engineering research, principally through universities and colleges. The agency also supports education initiatives in mathematics and science. For more than 50 years NSF has continued to have a remarkable impact on the United States' scientific and engineering enterprise. Over that time the scientific challenges have grown in complexity, requiring more collaborations, greater integration, and a wider range of state-of-the-art tools and facilities. As a catalyst for innovation, NSF has been adjusting to these changes in many ways. However, NSF faces management challenges that need immediate attention and resource constraints that will force difficult decisions in order to meet the demands of an ever-changing environment. My office has identified several management challenges, e.g., post-award administration, human capital resources, and large-facility construction management, that are discussed in this report on page 8.

Demonstrating that NSF is accountable for results and a vigilant steward of public money is fundamental to good governance. Toward that end, the NSF Office of Inspector General strives to give the public and the Congress confidence that each dollar provided to NSF will be spent in the most efficient and effective way possible. On page 13 of this report, we provide details about NSF's most recent financial statement audit, which produced another unqualified opinion. Finally, on page 33, we include a summary of the accomplishments our office has made towards its goals over the past 12 months. I am pleased to report that we made significant progress in meeting the goals of our work plan.

There have been changes in NSF's senior management during this period. In February, Dr. Rita Colwell resigned as Director, and Dr. Arden Bement was appointed as Acting Director until a permanent Director is found. Every two years the terms of one-third of the National Science Board (NSB) end in May and we lose the services of eight distinguished and valued members. This year we thank Drs. Steven Beering, Anita Jones, George Langford, Joseph Miller, Robert Richardson, Maxine Savitz, and Luis Sequeira for their service to NSF and the country.

I especially want to recognize the contributions of NSB member Dr. Pamela Ferguson, who supported the work of the Office of Inspector General with her insights and management expertise. Dr. Ferguson died in April of this year. She will be remembered by the OIG for years to come because of her valuable contributions to audit planning and her ability to focus on important management issues. As a mathematician, a professor, and a college president, she had the skills

and the experience to assist us in navigating through complex issues. She also had a sense of humor, much appreciated by OIG staff.

During the next reporting period we will continue our commitment to work with NSF to address its management challenges and to ensure the efficiency, effectiveness, and integrity of agency operations. Finally, I want to express my appreciation for the strong support shown by the National Science Board, NSF senior management, and program officials at all levels of NSF, as well as the members of the Senate and House of Representatives and their respective staffs with whom we work.

A handwritten signature in black ink, reading "Christine C. Boesz". The signature is written in a cursive, flowing style.

Christine C. Boesz, Dr.P.H.
Inspector General
May 17, 2004

Executive Summary

- The OIG's list of the most serious management and performance challenges facing NSF appears on page 8.
- NSF received an unqualified opinion on its financial statements in the FY 2003 Independent Auditors Report, but the independent auditors again identified a reportable condition related to NSF's post-award grant monitoring. In addition, the related FY 2003 Management Letter discussed the need for NSF to implement a process for closing out certain types of grants in a timely way, and to establish an effective cost accounting system. (See p. 13)
- OIG issued a summary of 11 cost-sharing audits and a report on excessive, or "overload" salary compensation at a large western university system that found the university could not support \$32 million of the \$51 million of cost sharing it claimed on NSF awards over a nine-year period. In addition, the university claimed \$484,000 in excess salary compensation and related costs during one year, representing funds that could have been awarded to other NSF projects. (See p. 15)
- An audit of the National Science Board's (NSB) compliance with the provisions of the Government in the Sunshine Act, as mandated by the NSF Authorization Act of 2002 found that the NSB demonstrated a clear intent to provide for greater access to and increased openness in its meetings, and that it properly closed its meetings consistent with the exemptions contained in the Sunshine Act. The audit identified a few areas for improvement. (See p. 17)
- An OIG investigation revealed that NSF's Travel Card Program Manager misused her own travel card and then altered official records to hide the evidence. The manager pled guilty to a felony and was sentenced to 20 weekends in jail, 2 years supervised probation, fined \$1,000, and permanently barred from government service. The Manager was responsible for the daily administration of the Travel Card program, including oversight of misuse. (See p. 23)
- A northern California university grants and contracts administrator was convicted of embezzling \$487,425, including \$415,500 in NSF grant funds, over a period of five years. The administrator was responsible for reviewing and authorizing disbursements on NSF and other grants. He pled guilty to four state fraud and tax code violations. As part of the plea agreement, he was sentenced to four years in prison and ordered to pay \$480,383 in restitution. (See p. 25)

- OIG recommended that NSF reprimand a Co-Principal Investigator for plagiarizing parts of a research proposal from a confidential proposal submitted earlier to NSF. We found that the source proposal was reviewed by the Co-PI, who appeared to also violate the confidentiality of NSF's merit review process. OIG referred the allegations of plagiarism and violation of the confidentiality of NSF's merit review process to the subject's university for investigation. The institution concluded that the Co-PI engaged in research misconduct and applied sanctions. In a separate case, NSF sent a letter of reprimand to a PI who inserted 2 pages of plagiarized material into 2 NSF proposals, and directed him to provide written certifications for a period of 2 years that any newly submitted proposals comply with NSF's research misconduct regulation. (See p. 28)
- The OIG 2003 Performance Report describes OIG's progress in achieving three goals: increase OIG impact on NSF's effectiveness and efficiency; safeguard the integrity of NSF programs and resources; utilize OIG resources effectively and efficiently. (See p. 33)

OIG Management Activities

Congressional Testimony

In February, Dr. Boesz testified before the U.S. Senate Committee on Appropriations, Subcommittee on VA, HUD, and Independent Agencies, in connection with NSF's FY 2005 budget request. She praised the extraordinary work produced by NSF over its 54-year history, while noting that the nature of the scientific enterprise has changed and that NSF must be prepared to meet new challenges. Dr. Boesz updated the Committee on the progress being made in meeting three of those challenges.

NSF has made gradual progress towards completing the corrective actions aimed at improving its management of large infrastructure projects, she reported. The action plans came as a response to 2 audit reports issued in the past 3 years that discussed the need to increase oversight of large projects as well as capture complete information about their costs. However key recommendations remain open. The new guidelines that apply to large projects do not provide the level of detail necessary to assist staff engaged in their day-to-day oversight. Nor do the guidelines address the problem of recording and tracking the full costs of projects. NSF is planning to address these issues by expanding the content of its new guidelines. Dr. Boesz expressed concern that the newly hired Deputy Director for Large Facility Projects may not be receiving the resources necessary to complete the job, and said that additional staff is needed.

Another ongoing management challenge at NSF involves the establishment of a comprehensive, risk-based program for monitoring its grants and cooperative agreements. Recent OIG audits of high-risk awardees such as foreign grantees and Urban Systemic Initiative awards confirm that in the absence of effective post-award monitoring, certain problems tend to reappear. While the agency has developed a Risk Assessment and Award Monitoring Guide and has taken good first steps toward addressing this challenge, Dr. Boesz told Congress that weaknesses persist. The criteria for identifying high-risk awardees are not comprehensive, ignoring obvious risk factors such as past performance. Also, the Guide does not address the issue of what type of oversight should be accorded to medium and low-risk grantees. Finally, the site visits that are being conducted do not follow a consistent protocol and are not adequately documented.

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The two previous management challenges may be symptomatic of a larger, more pressing need for improved strategic management of NSF's human capital. Dr. Boesz noted that NSF's rapidly increasing workload has forced the agency to become increasingly dependent on temporary staff and contractors to handle the additional work. NSF's past efforts to justify an increase in staff have been impeded by the lack of a comprehensive workforce plan. Without such a plan, NSF cannot determine whether it has the appropriate number of people and competencies to accomplish its strategic goals. The agency has contracted for a human capital workforce plan, but it will take more than a year before the plan will be complete. Dr. Boesz said that the workforce issues facing NSF would undermine the agency's ability to successfully meet other pressing management challenges.

2004 Management Challenges

In October 2003, the OIG submitted a report to the Congress on what it considers to be the most serious management and performance challenges facing NSF. The list was compiled based on our audit work, general knowledge of the agency's operations, and the evaluative reports of others, such as GAO and NSF's various advisory committees, contractors, and staff. Although there was no fundamental change in the challenges from the previous year, NSF has made progress in addressing the challenges OIG has identified. The original management challenges letter appears in its entirety in the Appendix. Additional information about the status of some challenges appears elsewhere in this report and is referenced in parentheses. The 11 specific challenges include:

1. Workforce Planning and Training (see p. 7)
2. Administrative Infrastructure
3. Management of Large Infrastructure Projects (see p. 7, 19)
4. Post-Award Administration. (see p. 7, 13)
5. Cost Sharing.
6. Information Security.
7. GPRA Reporting. (see p. 19)
8. Cost Accounting. (see p. 14)
9. Management of U. S. Antarctic Program (see p. 20)
10. Broadening Participation in the Merit Review Process
11. Math and Science Partnership

Legal Review

The Inspector General Act of 1978, as amended, mandates that our office monitor and review legislative and regulatory proposals for their impact on the OIG and NSF's programs and operations. We perform these tasks for the purpose of providing leadership in activities that are designed to promote economy, effectiveness, efficiency, and the prevention of fraud, waste, abuse and mismanagement. We also keep the Congress and NSF management informed of problems and monitor legal issues that may have a broad effect on the Inspector General community. During this reporting period, we reviewed 14 bills that affected either NSF, OIG, or both. The following bill merits discussion in this section.

Program Fraud Civil Remedies Act of 1986 (PFCRA) (31 U.S.C. §§ 3801-3812)

A legislative priority that we support is amending PFCRA to include NSF and the 27 other "Designated Federal Entity" (DFE) agencies that are currently excluded from participation under PFCRA's enforcement provisions. The OIG's concern involves the ability of DFE agencies to fully implement their statutory mission to prevent fraud, waste and abuse by availing themselves of the enforcement capabilities contained within PFCRA. In fact, we have raised the issue of NSF's inclusion under PFCRA in several prior semiannual reports.

The DFEs are generally smaller agencies that intrinsically are more likely to have cases involving smaller dollar amounts. PFCRA sets forth administrative procedures that enable defrauded agencies to proceed administratively to recover double damages and penalties when the amount of loss is less than \$150,000. Using the enforcement provisions of PFCRA will enhance NSF and other DFE agencies recovery efforts in instances of fraud that fall below PFCRA's financial threshold of \$150,000. We believe that by not including DFE agencies under PFCRA, the Act fails to maximize its potential. Amending PFCRA to include NSF and the other DFE agencies would strengthen the OIG community's statutory mission to deter fraud, waste and abuse.

Outreach

As part of our ongoing efforts to prevent and detect fraud, waste, and abuse, we reach out to the communities we serve to inform them about our work. Our customers include the national and international research communities, other Federal agencies and OIGs, and NSF.

Working with the Research Community

Along with officials from the National Natural Science Foundation of China, we coordinated an International Symposium on Accountability in Science Funding.

Representatives from 13 nations attended meetings focused on issues of financial accountability and research misconduct. Many of the attendees had come to the symposium believing that their concerns were unique to their communities, but learned over the course of the meeting that the issues confronting them are universal. Research is increasingly a global enterprise and coordination among nations regarding financial and research compliance is key to successful ventures



Representatives from 13 nations attended the International Symposium on Accountability in Science Funding in Beijing.

and the effective prevention of fraud, waste, and abuse.

The Executive Assistant to the Associate Inspector General for Audit remained in China when the symposium ended as part of an exchange of visiting staff between NSFC and OIG. Over three weeks, he observed NSFC's operations and participated in discussions about their oversight and inspection practices. He also attended a regional grants conference sponsored by the NSFC staff in the Xi'an region of China and visited an academic research institution to see how grant recipients use NSFC funds. At the end of his stay, the Executive Assistant made a presentation to an audience of NSFC management and staff that compared and contrasted the different approaches to auditing and oversight of the Chinese and U.S. governments.

At the March meeting of the National Council of University Research Administrators meeting in San Diego, California, the Inspector General moderated a panel discussion on how IGs view their roles and responsibilities. In addition to Dr. Boesz, the panelists included the Inspectors General of the National Aeronautics and Space Administration and Department of Energy, and NSF's Associate Inspector General for Audit. The panelists discussed their respective legislative mandates, approaches to auditing Federal awards, and the role of investigations with respect to research and development award issues.

OIG staff participated in outreach activities at four universities: George Washington University, Florida State University, the Ana G. Mendez University System, and Howard University. We were invited to discuss issues related to the responsible conduct of research, and what constitutes research misconduct. We also presented several seminars to student groups on ethics and issues they are

likely to confront during their professional careers. Speaking at universities enables us to emphasize the importance of ethical conduct to research professionals at the start of their careers. At these meetings, we strive to create an environment where people feel comfortable seeking advice about sensitive issues and concerns.

OIG staff were also invited to speak to professional societies such as the Washington Academy of Sciences, the American Chemical Society, the American Physical Society, and the Society of Research Administrators International, on the following subjects: "Research Misconduct: Policy and Practice," "Responsible Conduct of Research," and "Conflicts of Interests from a Federal Perspective." Members of the research community are encouraged to check our website (<http://oig.nsf.gov/pubs.htm>) for additional information on these topics and others.

This period we also participated in an NSF Regional Grants Seminar, which was attended by numerous officials from awardee institutions as well as Principal Investigators. We presented on issues related to compliance, research misconduct, fraud, and audit, and emphasized the importance of early reporting of any concerns to OIG, and how establishing effective policies and good internal controls can preempt questions raised later by investigators and auditors.

Working with the Federal Community

As Chairperson of the President's and Executive Councils on Integrity and Efficiency (PCIE/ECIE) Misconduct in Research Working Group, the IG continues to lead efforts to educate the community about this issue. We briefed members of the PCIE/ECIE Inspection and Evaluation Committee on the guidelines the working group prepared to assist other agencies in developing research misconduct policies, and conducting professional investigations of research misconduct. OIGs were urged to perform oversight reviews of their agencies' efforts to implement research misconduct policies that are consistent with published Office of Science and Technology Policy (OSTP) guidelines.

At a Council of Science Editors meeting, convened by the Department of Health and Human Services' Office of Research Integrity (ORI), we partici-



President Bush meets with Dr. Boesz and other Inspectors General to commemorate the 25th anniversary of the IG Act.

pated on a panel focusing on research misconduct and the different approaches being taken within the Federal community to address this problem. We discussed NSF's perspective on research misconduct and highlighted the ways in which our procedures differ from ORI's. Journal editors were encouraged to contact OIG directly when they suspect plagiarism, falsification, or fabrication.

The annual Grant Fraud Investigation Training Program focused on disseminating methods used by the IG community to uncover, investigate, and prosecute grant fraud. Hosted by our Investigations staff, the program attracted the largest turnout ever. Over 50 members of the OIG community, including criminal investigators, auditors, and senior managers from 20 different OIGs attended the one-day session held in October 2003.

The ECIE OIGs adopted the Qualitative Investigative Peer Review Guide during this period. Meanwhile, we continue to work with ECIE working group members to prepare ECIE OIGs for investigative peer review by assisting them in developing effective policies and procedures. The working group has developed a schedule for the ECIE voluntary peer review, and has addressed issues related to the modification of Privacy Act systems of records, FOIA considerations, and records retirement.

Working with NSF

In conjunction with other Federal OIGs, we observed the 25th anniversary of the Inspector General Act and invited NSF staff to attend our Open House held in October. The Open House was an opportunity to establish better communications with our colleagues, and inform them about subjects such as identity theft and NSF's policy on peer-to-peer (P2P) file sharing. Educational initiatives involving identity theft and P2P are being undertaken jointly with agency officials.



NSF requires program officers and others to attend conflict of interests briefings presented by NSF's Designated Agency Ethics Official (DAEO). OIG staff members provide a short discussion at the beginning of each session, which allows us the opportunity to interact with program officers and other NSF staff on a regular basis to explain our function, encourage them to seek COI advice from the DAEO, and remind them of their duty to report wrongdoing to OIG. As in the past, a number of our staff has served as resource advisors at NSF's Program Manager's Seminar. This allows members of the staff to interact with new program officers and acquaint them with our purpose and procedures.

Audits & Reviews

Significant Reports

Financial Statement Audit

The Federal Government has made the improvement of financial management a high priority for many years. The President's Management Agenda identified improved financial management as one of its top 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, and policy decisions.

The Chief Financial Officer's (CFO) Act of 1990, as amended, requires Federal agencies to prepare annual financial statements and the agency Office of Inspector General (OIG), or an independent public accounting firm selected by the OIG, to audit these statements. During this semiannual period we issued the Fiscal Year (FY) 2003 Independent Auditors' Report on NSF's financial statements and the FY 2003 Management Letter, which noted certain matters involving internal controls and other operational matters identified during the financial statement audit.

The FY 2003 Independent Auditors' Report

The FY 2003 Independent Auditors' Report, prepared under the Office of Management and Budget's (OMB) accelerated schedule, was issued for the first time within seven weeks of the end of the fiscal year and over two months earlier than the prior year. NSF received an unqualified opinion on its financial statements in the FY 2003 Independent Auditors Report, but the independent auditors again identified a reportable condition related to NSF's post-award grant monitoring. Although NSF spends nearly 90 percent of its \$5 billion budget on approximately 30,000 ongoing awards, it has not fully implemented a comprehensive and systematic risk-based internal grants management program to administer these awards after they are made. Such a program would ensure that awardees are expending their grant funds in accordance with their award agreements and Federal regulations.

In FY 2003, NSF revised its award-monitoring guide and conducted several on-site monitoring visits. However, the guide needs

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further revision to include more criteria for identifying high-risk grantees, additional review procedures for medium and low risk grantees, and procedures for periodic monitoring of financial expenditure reports. In addition, NSF needs to ensure that its staff consistently follows the guide when conducting monitoring reviews and that the results are documented and tracked to ensure that any weaknesses identified are corrected. Finally, NSF needs to allocate sufficient resources to implement these improvements, or it will not be able to ensure that the grant objectives are met and that its programs and resources are adequately protected from waste, fraud and mismanagement.

NSF has begun to address these issues by increasing the scope of its award monitoring guide, performing additional site visits, and hiring a contractor to assist in analyzing and assessing its post-award monitoring program. In addition, NSF has proposed to establish a separate division within the Office of Budget, Finance,



Dr. Boesz presents award to Dan Kovlak and Jula Jefferson of KPMG for meeting the accelerated schedule for completing NSF's financial statement audit.

and Award Management which will provide for greater focus on post-award management and proactive business assistance to grantees. While these steps are important, NSF senior management needs to ensure that sufficient resources for staffing, training, and travel are made available to implement its plan. Adequately staffing this effort will send a clear message to both its employees and the awardee community that the agency considers award monitoring to be an integral part of its stewardship responsibilities.

The FY 2003 Management Letter

The FY 2003 Management Letter discussed the need for NSF to implement a process for closing out certain types of grants in a timely way, and to establish an effective cost accounting system. The audit identified over \$5 million of unspent funds associated with expired grants that were not properly closed out from as far back as FY 1984. If they had been found within a specified period of time, these funds could have been reprogrammed to support other NSF programs. But by the time of the audit, \$1.1 million in grant funds had expired and were no longer available. To address this problem, NSF has committed to periodically review expired grants to determine whether unspent funds can be reprogrammed, and made available for other award opportunities.

Also, the management letter reported for the third consecutive year that NSF needs to implement a meaningful cost accounting architecture that will provide accurate and timely information to support management decision-making, including information to assess the full cost and performance of its programs and activities. Without full cost information, NSF stakeholders (i.e. NSF management, the National Science Board, congressional committees, and OMB) are at a disadvantage in determining funding priorities and how best to allocate and manage project or program costs. In addition, NSF needs to be able to track and report the full cost of its programs to meet the objectives set by the government-wide initiative on "Budget and Performance Integration," mandated by the President's Management Agenda. Such information is necessary to establish a clear link between the resources invested in NSF programs and their benefits.

Although NSF has indicated that it has a plan to develop a cost accounting architecture, the plan does not account for costs or provide for monthly reports at the program level. Given the amount of time that has transpired since this deficiency first appeared in the management letter, NSF should make this effort an immediate priority by providing sufficient staffing and funding to support it.

Western University with \$280 Million in NSF Awards Needs to Improve Internal Controls and Comply with Federal Requirements for Excess Compensation

We have completed a summary of 11 cost-sharing audits and a report on excessive, or "overload" salary compensation at a large western university system that received \$280 million in NSF funding and was required to provide \$85 million in cost sharing over the last 10 years. These audits found that the university could not support as much as \$32 million of the \$51 million of cost sharing it claimed on NSF awards over a nine-year period. In addition, the university claimed \$484,000 in excess salary compensation and related costs during one year, representing funds that NSF could have otherwise awarded to other projects.

University Needs to Continue to Improve Its Management of Cost Sharing

Prior audits at the western university found that nine of the campuses did not effectively manage their NSF cost-sharing awards, suggesting a university-wide weakness in controls to oversee grants administration, particularly cost sharing. The audits, which covered the period from September 1, 1992 through January 12, 2001, found: a lack of written policies and procedures; inadequate systems to track or maintain supporting documentation for cost sharing; overstatement of in-kind cost sharing; inadequate monitoring, particularly of subrecipient cost sharing; and an absence of cost-sharing certification.

Since the completion of the audits, the university has taken steps to improve its oversight of cost sharing. These actions include the issuance of new guidance on cost sharing to its campuses and the completion of 11 grant and contract audits. However, the university still needs to establish a management structure that provides

overall direction and oversight of the grant administration operations at its various campuses. We also recommended that the university provide more detailed guidance on cost sharing; establish responsibilities for a system-wide structure and framework to direct and oversee sponsored research and cost sharing; enable the University Auditor to assess compliance with Federal requirements for grants management, including cost sharing, on a regular basis; and ensure that campuses with large amounts of Federal awards provide for routine audits of internal controls over award administration.

The university generally agreed with our recommendations, but disagreed that it should establish new positions of responsibility for system-wide management of Federal awards, since ultimate responsibility for award administration rests at the campus level. However, we believe that the pattern of weaknesses in cost-sharing administration identified in our audits indicates the need for more centralized leadership, guidance, and oversight of award administration at the campuses. Given the pervasive nature of the university's cost-sharing control weaknesses, we referred the report to the Department of Health and Human Services, the cognizant agency for a majority of campuses, which has agreed to follow up on the findings and recommendations on behalf of all Federal agencies.

Five Campuses Charge \$484,000 In Excess Faculty Compensation

In our audit of cost sharing at one of the campuses, we identified payments to faculty members in excess of their regular salary, which is commonly referred to as overload compensation. Federal regulations permit overload compensation when such arrangements are either specified in the award or approved in writing by the sponsoring agency. However, university policy allows faculty to be paid up to 25 percent above their full-time academic yearly salary from Federal funds without Federal approval. We found that five of eight campuses used this university policy to charge \$484,000 in excess compensation.

We recommended that NSF require the university system to specifically request overload compensation in grant proposals and allow extra salary compensation only when NSF had approved the request in writing. The university disagreed because it had received approval for this practice from its cognizant Federal agency. In response, we stated that the Office of Management and Budget agreed with our position that campuses need to get approval from sponsoring agencies before charging overload compensation. We referred this matter to NSF's Division of Acquisition and Cost Support for resolution.

Memorandum to NSF Management Regarding \$37.7 Million Potential Overload Compensation

While performing the audit on overload compensation we identified an inconsistency between NSF's policy manual and requirements included in its grant agreements. NSF's Grants Policy Manual (GPM) requires that overload compensation for researchers be explicitly provided for in the program solicitation

and approved by NSF. However, NSF award conditions do not include this provision, thereby jeopardizing NSF's ability to enforce this policy. The financial implications of the overload-compensation requirement are significant for NSF. An analysis of all NSF awards made to universities from FY 2000-2002 showed that 7 percent of the awards included budgets totaling an estimated \$37.7 million for academic year salary support for senior personnel, which may have been used to pay overload compensation. overload compensation.

We recommended that NSF include in its award letter the GPM requirements that permit overload compensation only under the following circumstances: 1) the award solicitation explicitly allows it, 2) the awardee specifically requests it, and 3) NSF approves it. More generally, we also recommended that NSF ensure that all significant policies in the GPM are incorporated into the award letters. NSF management agreed to consider the recommendation as it pertains to incorporating GPM provisions about overload compensation in award letters and will present this issue at an upcoming National Science Board meeting. NSF management will address the more general requirements, which will take considerable time to analyze and implement, as resources become available.

National Science Board Demonstrates Clear Intent to Comply with Sunshine Act

During this semiannual period, we issued our first annual report on the National Science Board's (NSB) compliance with the provisions of the Government in the Sunshine Act, as mandated by the NSF Authorization Act of 2002. We found that the NSB demonstrated a clear intent to provide for greater access to and increased openness in its meetings, and that it properly closed its meetings consistent with the exemptions contained in the Sunshine Act.

However, the audit identified a few areas for improvement. For instance, the NSB did not always provide public notice of its meetings one week in advance, and had difficulty making written copies of its votes and related explanations to close meetings to the public with one day's notice. Also, electronic recordings for some of its closed meetings, though required, were not made due to technical difficulties.

To help ensure that the NSB and its staff improve compliance with the Sunshine Act's many requirements, we recommended that the NSB develop, implement, and provide training on formal policies and procedures that define the various participants' roles and responsibilities for compliance. The NSB agreed with the report's findings, recommendations, and suggestions and is undertaking steps to address them.

Risk Assessment for Federally Funded Research and Development Center

We conducted a joint review of a large Federally Funded Research and Development Center (FFRDC) with the Department of Commerce OIG to find out whether the FFRDC's self-evaluation known as a "business risk assessment" offers assurance that Federal funds are managed effectively. Although the risk assessment of the FFRDC's business and research operations succeeded in raising awareness of risk management throughout the organization, we found that it did not address the FFRDC's risk of managing Federal awards, which provide \$186.5 million or 89 percent of the FFRDC funding. In addition, FFRDC management did not take effective action to follow up on the results of the risk assessment. Consequently, NSF and the Department of Commerce are unable to rely on the assessments as a primary means to ensure the adequacy of Federal grants management and systems controls.

Corrective Actions Prompted by Previous Audits

NSF Strengthens Controls Over Grants To A Foreign Organization

In response to our audit of a foreign grantee, NSF has taken corrective actions to improve its management and monitoring of foreign grants for compliance with applicable Federal grant requirements and NSF award terms and conditions. NSF directed its grant officers to exercise particular care and diligence in its pre-award review of new foreign awardees to ensure both their financial viability and legal standing to receive NSF grant funds. Grant officers were reminded to coordinate with the NSF Office of General Counsel if questions arise during these preaward reviews. Additionally, the foreign grantee reviewed in the audit is working with its host and founding organizations to properly establish its legal status.

Further, NSF has developed new award terms and conditions to clarify the Federal grant requirements applicable to these international organizations. As recommended, NSF amended its grant agreement with the audited foreign organization to provide funding through a fixed amount award rather than the standard NSF research grant agreement. The agency is in the last stages of the process of resolving concerns regarding the foreign awardee's financial responsibility and accountability related to the award in question. We will continue to work with NSF to ensure that an organization with legal status is identified to accept responsibility for the pass-through funds.

Western University Repays NSF \$1.4 Million In Unallowable Costs

During this reporting period, a western university repaid \$1.3 million to NSF for inappropriately recovering administrative services costs above the maximum allowed under federal regulations. It previously had reimbursed NSF \$148,098 for over-recovering such expenses. The university incurred the costs in carrying out administrative functions such as payroll, purchasing, travel administration, award monitoring, project accounting, and procurement of supplies. Although Federal regulations consider these costs to be indirect costs recoverable by an institution through its facilities and administrative (F&A) rate, the university charged these costs separately as direct costs of Federal awards. We informed the cognizant agency of our resolution of the issue since the recovery may have broader implications for the Federal Government. The university charged 20 Federal agencies a total of \$5.7 million of administrative costs. The university agreed not to charge these types of costs to the Federal Government in the future.

Resolution of Recommendations for NSF's Committees of Visitors

During this semiannual period, NSF completed actions to respond to one recommendation from our audit of NSF's Committees of Visitors¹ (COVs) and submitted an action plan to implement the second recommendation. In response to the first recommendation, NSF fully disclosed in its FY 2003 performance report the limitations of the data used in its performance assessment process for reporting under the Government and Performance and Results Act of 1993. Decision makers can now make an informed judgment about the reliability, adequacy and quality of the data used to assess NSF's performance.

To address our recommendation that NSF document its response to the recommendations from the COVs, NSF plans to update its procedures and implement a system to formally track its response to COV recommendations. It also plans to make this information available to later COVs through the Internet. During this semiannual period, NSF initiated actions to implement these plans.

Key Recommendations to Improve NSF's Oversight of Large Facility Projects Remain Open

In prior semiannual reports (March 2001 and September 2002), we reported on the results of our audits of NSF's financial management of its large facility projects. While NSF continues to make progress in implementing corrective actions, five of nine recommendations in the two audit reports remain open.

The major part of NSF's corrective action program is the development of a Facilities Management and Oversight Guide (the Guide) that should enable NSF managers and awardees to better oversee and manage these large projects. Although NSF issued the Guide in July 2003, we noted in comments provided to

¹ See September 2003 Semiannual Report, p.16

the agency that the Guide needs more practical and detailed guidance for Program Officers doing the day-to-day work. The Guide does not address the recording and tracking of the full cost of large facility projects, which is necessary to ensure that projects remain within authorized funding levels and is needed by decision makers to establish funding priorities.

NSF plans to provide this detailed guidance through as many as 20 supplemental modules. During this semiannual period, the agency provided us



NSB Chairman Dr. Warren Washington tours the Laser Interferometer Gravitational-Wave Observatory (LIGO) site in Louisiana with other Board members and the IG.

with drafts of two of these modules: Risk Management and Roles and Responsibilities. In general, these drafts begin to provide the specific information needed by NSF staff to manage these projects. However, we remain concerned about the amount of time taken to develop the guidance, and believe that NSF is not allocating enough resources to support this important and complex effort. We are concerned that the guidance provided in the modules is of an advisory nature, leaving many activities and decisions to the discretion of the individual program

officers. As such, the guidance does not provide adequate accountability for managing these projects.

Recommendations Concerning Reporting on Antarctic Infrastructure Remain Unresolved

Although NSF has implemented two of three recommendations from our March 2003 audit of the Occupational Health and Safety and Medical Programs in the United States Antarctic Program (USAP), our recommendation that NSF initiate life-cycle planning and identify the resources associated with its planned upgrades and replacements of USAP facilities remains unresolved. NSF has recently issued an update to its McMurdo Station Long-Range Development Plan, which covers the majority of the USAP facilities. This plan reflects a robust methodology for identifying and prioritizing facilities requirements, and properly recognizes projects with safety and environmental concerns as being the highest priority, "Level 1."

However, additional actions are needed to ensure that adequate funding for the Level 1 projects is included in the request for resources. Resource requests should clearly identify which of the Level 1 facilities projects NSF is requesting funding for in the fiscal year, and a crosswalk should be provided between the total resources requested for these projects and the long-range Plan. Also, to ensure that the information in the Plan remains current and relevant, it should be reviewed and updated on a regular basis to reflect the current priorities, costs, and estimated start dates of the projects.

NSF believes that the planning and prioritization done in preparation for the annual Congressional budget request serves the function of updating the long-range Plan on a regular basis. While we agree that NSF does extensive planning and prioritization preparing for its annual budget request, the formal document provided to Congress and the Office of Management and Budget does not clearly identify the priority projects for which it is requesting funding, nor does it relate the priority projects to specific resources.



Pausing during a recent site visit to McMurdo Station in Antarctica are Steve Toth (Raytheon), Erik Boxhoorn (KPMG), John Lynskey (NSF), Tim Cross (Deputy IG), Don Farineau (KPMG), and Pat Smith (NSF).

Further, it does not contain information such as changes in project start dates, time frames and anticipated associated resources for the Level 1 facilities projects that did not make the current year's budget request. Updating such information on an annual basis provides decision makers with the information needed to understand NSF's decision-making process, and the trade-offs that must be made within that process.

We continue to discuss this recommendation with NSF management.

A-133 Audit Reports

The Single Audit Act of 1984 (Public Law 98-502) and the Single Audit Act amendments of 1996 (Public Law 104-156) established uniform requirements for audits of non-Federal entities receiving Federal awards. Under the Act, non-Federal entities that expend \$500,000 or more a year in Federal awards are required to have an organization-wide audit that includes the non-Federal entity's financial statements and compliance with Federal award requirements.

Desk Reviews. In this reporting period, we reviewed 79 A-133 audit reports with NSF expenditures of \$727 million for fiscal years 2000 through 2003. Of the 79 A-133 reports reviewed, 53 reports contained reportable conditions and non-compliance findings. The most common deficiencies related to non-compliance with Federal cost principles, unallowable costs, equipment management, reporting, and subrecipient monitoring. In total, the auditors questioned \$372,322 of NSF-funded costs claimed by award recipients. A non-profit organization earned \$124,676 in program income and failed to reduce the reimbursement total by this amount, therefore receiving a premature cash outlay. Another entity was unable

to provide time and effort reports supporting \$201,168 in salaries, payroll taxes, and related fringe benefits.

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 reports, but still require the non-Federal entity management's attention. Our examination of the Management Letters in this reporting period identified 13 entities with internal control problems in the areas of financial management, reporting, and subrecipient monitoring.

Investigations

The Office of Investigations handles allegations of fraud, waste, abuse, and mismanagement in NSF programs and operations, as well as allegations of research misconduct associated with NSF programs and operations. We work in partnership with NSF, other Federal agencies, and awardee institutions to resolve issues whenever possible. As appropriate, we either refer our investigations to the Department of Justice or other prosecutorial authorities for criminal prosecution or civil litigation, or recommend to NSF administrative action such as debarment. The following is an overview of investigative activities, including civil and criminal investigations and significant administrative cases.

Civil & Criminal Investigations

NSF Manager Convicted and Sentenced for Destruction of Government Records

An OIG investigation revealed that NSF's Travel Card Program Manager misused her own travel card and then altered official records to hide the evidence. The manager pled guilty to a felony and was sentenced to 20 weekends in jail, 2 years supervised probation, fined \$1,000, and permanently barred from government service. The Manager was responsible for the daily administration of the Travel Card program, including oversight of misuse and recommending salary offset for delinquent accounts.

Following a 2002 audit and subsequent investigative review of NSF travel records, we received an anonymous tip alleging that the travel card program manager (a GS-15 Supervisory Accountant) was misusing her own travel card by making unauthorized ATM cash withdrawals. ATM cash withdrawals are only authorized when made in connection with official government travel. Otherwise, such withdrawals amount to personal, interest-free loans.

Our review of NSF and Bank of America records confirmed that the manager frequently used the travel card to make purchases from local retailers and ATM withdrawals, unrelated to official travel. Significantly, these unauthorized transactions appeared in the original Bank of America records but not in any of the electronic agency records that the manager maintained as a part of her official duties.

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These altered government agency electronic records had previously been provided to OIG Audit as part of the September 2002 audit, and provided separately to OIG Investigations as part of our proactive review of travel records.

When interviewed, the manager revealed that she made frequent use of the travel card for personal, non-official transactions on dozens of occasions over 3 years, and even allowed her children to make withdrawals with her card. She also admitted to altering NSF's electronic records every month to conceal her misuse from both the agency and OIG. Although the manager's supervisor was informed on 2 occasions that she was misusing the travel card, her supervisor failed to take any corrective or disciplinary action, and thereby enabled the misuse to continue.

Based on our referral, the U.S. Attorney for the Eastern District of Virginia (USA/EDVa) accepted this case for prosecution. In accordance with the manager's plea agreement, she resigned from NSF on December 15, 2003, and the next day pled guilty to violation of 18 U.S.C. § 2071(b), the willful and unlawful destruction of an official record, a felony. On March 26, 2004, the former manager was sentenced to 2 years of supervised probation and required to pay a \$1,000 fine and \$100 Special Assessment Fee-she was also sentenced to 20 weekends in jail to serve as a deterrent to others.

As part of the plea agreement, as required by § 2071(b), the former manager is permanently barred from holding Federal office. OIG recommended that NSF debar the former manager government wide for 3 years to ensure that she does not work in the private sector under a Federal grant or contract.

Eight Travel Card Cases to Be Submitted to NSF for Administrative Action

In addition to the preceding case, OIG's review of travel records identified 11 other cases involving suspected misuse of travel cards by NSF employees. These cases largely involved ATM cash withdrawals and purchases from local merchants that appeared to be unrelated to official travel. OIG investigators reviewed Bank of America electronic records and conducted interviews to determine what charges, if any, were authorized.

Eight cases were referred to the USA/EDVa for possible criminal prosecution under 18 U.S.C. § 1029(a)(2), fraudulent unauthorized use of an access device. USA/EDVa declined to prosecute these matters in lieu of administrative action, and we are therefore referring them to NSF management for appropriate action.

In the remaining 3 cases, we determined that the employees had used the travel card for purchases that were authorized but unrelated to official travel. We advised the employees that use of the travel card for purchases unrelated to official travel was inappropriate, and these cases were closed without further action.

Changes to Travel Card Policies Recommended

Based on the experience gained from recent investigations involving travel card use, we provided NSF with specific recommendations for tightening internal

controls and improving the monitoring of travel card misuse and delinquency. NSF responded by revising certain policies, including requiring additional training of all travel card users and suspending the cards of users who have not traveled recently.

In our September 2003 Semiannual Report to Congress (page 42), we discussed our recent implementation of regular proactive reviews of use of travel cards. These reviews were initiated in response to heightened public and Congressional interest, as well as an increase in fraud allegations pertaining to use of the travel card. Our review of recent travel card transactions found that employee credit card fraud and abuse, while never widespread, has significantly decreased in recent months. Our office will continue to conduct proactive reviews to identify common problems, and work with Bank of America and NSF to develop new approaches to prevent and detect credit card fraud and abuse.

University Employee Sentenced to 4 Years Incarceration for Embezzling NSF Funds

A northern California university grants and contracts administrator was convicted of embezzling \$487,425, including \$415,500 in NSF grant funds, over a period of five years. The administrator was responsible for reviewing and authorizing disbursements on NSF and other grants. He abused his position by requesting monthly disbursements (stipend payments) for his wife, who he falsely claimed was a program participant. He then forged the signature of the project director, approved the request as the grants and contracts administrator, and submitted the request to the accounts payable department. On each request he indicated that he would pick up the check once it was ready, and then deposited the checks, which ranged from \$1,200 to \$6,500, in his university credit union account.

We worked with the San Francisco District Attorney's (DA's) office to assist in the prosecution of the grants administrator. The DA indicted the administrator for multiple counts of fraud, forgery, and revenue and tax code violations. On March 12, 2004, the administrator pled guilty to four state fraud and tax code violations. As part of the plea agreement, he was sentenced to four years in prison and ordered to pay \$480,383 in restitution. We recommended that NSF debar the former administrator to ensure that the institutions receiving public funds will only employ responsible individuals.

The university reviewed the fraudulent expenditures from the NSF grants, as well as its cost sharing contributions and other charges, and determined that a total of \$1,206,314 should be returned to NSF or credited to the open grant accounts. To date, the university has returned or restored \$867,681 to NSF or NSF grant accounts. The university is cooperating with NSF/OIG to ensure that all NSF funds are returned and that adequate internal controls are implemented to prevent future occurrences.

University Employee Gambles with Stolen Federal Funds

An employee of a west coast university was convicted of stealing \$40,899 in grant money from an NSF sponsored research facility. The subject was responsible for the facility's petty cash fund account, and had access to an ATM card. The university discovered the theft when the subject was on vacation, and another employee discovered 2 checks attached to copies of the same invoice, making it appear that it had been paid twice. The facility director received copies of the cashed checks from the bank and learned that one of the checks had been altered to make it payable to the subject. The endorsement signature on the back of the check indicated that she had cashed the check herself.

The university immediately suspended the subject pending an investigation. After the university found five suspicious checks totaling \$6,000, a university official interviewed the subject. The subject admitted to her fraud, blaming her actions on a gambling problem and depression, and explained that she wrote checks to herself



Darrell Drake and Crystal Blackshear receive the ECIE Award for Excellence from Federal Reserve IG Barry Snyder

on the account and forged her supervisor's signature on the checks. She concealed her crime by preparing copies of blank checks payable to legitimate vendors, and then submitting them to her supervisor to confirm payment of the invoices.

The subject had unlimited signature authority on the petty cash checking accounts, and admitted to altering five to ten checks totaling an unknown amount of money. The records

ultimately revealed that the subject cashed \$23,992 in checks, charged \$3,139 to her ATM card for AT&T wireless charges, charged \$2,922 to her ATM card in other unauthorized purchases, and withdrew \$2,399 in cash, for a subtotal of \$32,452 in fraudulent expenditures. Moreover, when the indirect costs charged to the award as a result of her theft are included, the total loss of Federal funds amounted to \$40,889.

After the university notified OIG of the theft, we interviewed the subject and obtained a written statement admitting to the theft of the funds. We referred the case to the U.S. Attorney's Office, and on March 19, 2004, the subject pled guilty to one count of violating 18 U.S.C. § 666, "theft or bribery concerning programs receiving federal funds." The subject is scheduled to be sentenced in June 2004. The university restored \$40,889 to the account for the NSF award. As part of the plea agreement, the subject agreed to pay full restitution to the university.

Two Employee Investigations Result in Separation from Service

The September 2003 Semiannual Report (page 31), contains a summary of the case of an NSF employee who advertised stolen property using the agency's electronic bulletin board. Although the employee was repeatedly counseled by OIG and her supervisor about her obligation to cooperate with our investigation, the employee continually refused. Following the completion of OIG's investigation, we referred the matter to NSF for administrative action. NSF management issued a proposed termination notice to the employee for failure to cooperate with an OIG investigation, and the employee resigned prior to the agency's final decision.

In another case, reported in our September 2003 Semiannual Report (page 35), an NSF program assistant intentionally fabricated and submitted a jury duty notice to justify her absence from work. We reported our findings to management for appropriate action, and on December 16, 2003, the program assistant was terminated for cause.

Company Official Returns Funds Obtained by False Certification

A company official for a first-time recipient of a Small Business Innovation Research (SBIR) award falsely certified that the primary employment of the Principal Investigator (PI) was with the firm. Based on the certification, NSF made an initial payment of \$33,000 to the company. When NSF found that the PI was not employed at the company, NSF terminated the grant and referred the matter to OIG. After the grant was terminated, the company ceased operations and went out of business.

During our investigation, the company official admitted that he signed the "Request for Initial Payment" form despite knowing that the company did not primarily employ the PI. However, the official said that he did not understand the NSF grant requirements, and claimed that other officers of the company were responsible for preparing and submitting the documents to NSF. Following our consultation with the U.S. Attorney's Office, the company official agreed to refund a portion of the award to NSF, and the U.S. Attorney declined to prosecute. In addition, the company official stated in writing his intention to comply with all rules and regulations when applying for future Federal awards.

University's Computer Purchase Fulfills Cost-Sharing Requirements

In our September 2003 Semiannual Report (page 32), we summarized the case of a university that failed to fulfill its cost-sharing requirement. The university had agreed to purchase the computer equipment initially identified as their cost-sharing obligation. In December 2003, the university submitted documentation verifying the purchase of the computer system at a cost of \$58,229. This amount exceeded their cost-sharing requirement and fulfilled their obligation.

Administrative Investigations

Reports Forwarded to the Deputy Director

PI Recommended for Reprimand for Plagiarism.

OIG recommended that NSF reprimand a PI for plagiarizing parts of a research proposal. We received an allegation that an NSF proposal, submitted by a PI and four co-PIs, contained material copied from a confidential proposal submitted to NSF. Our examination of NSF's database indicated that the source proposal was reviewed by one of the co-PIs, leading to the suspicion that the co-PI also violated the confidentiality of NSF's merit review process. During our inquiry, we identified additional text copied verbatim from a separately published paper.

Our inquiry determined that the PI had received a copy of the proposal from the co-PI, who received it from NSF to review, and the PI (the subject) alone was responsible for the inclusion of the copied text into the proposal. We referred the allegations of plagiarism and violation of the confidentiality of NSF's merit review process to the subject's university for investigation. The university found the subject copied a moderate amount of material, including text, a figure, and references, from the source proposal, and several lines of text from the paper. The university concluded that the subject's plagiarism and violation of the confidentiality of NSF's merit review process constituted research misconduct under its policy. The university reprimanded the subject and required him to attend a research ethics conference and participate in the university's research ethics course for its graduate students. We agreed with the university's conclusions and recommended that NSF send a letter of reprimand to the subject and require him to provide certifications for 2 years.

Action by the Deputy Director

NSF took action against a PI who inserted 2 pages of plagiarized material into 2 NSF proposals, as first reported in our September 2003 Semiannual Report (pages 36-37). On the basis of our investigation and recommendations, NSF sent a letter of reprimand to the PI and directed him to provide NSF written certifications for a period of 2 years that any newly submitted proposals comply with NSF's research misconduct regulation.

Significant Administrative Cases

Human Subjects Protection Issues Uncovered by Contradictions in Awardee's Annual Report

Allegations concerning a first-time grantee's compliance with the Common Rule for the Protection of Human Subjects resulted in corrections by the grantee

and improved compliance oversight by the NSF programs. Under the Common Rule, an awardee must certify to NSF that an approved Institutional Review Board (IRB) has reviewed and approved the use of human subjects before any such research is funded. While reviewing an awardee's annual report, we identified contradictory information about whether the awardee had secured IRB approval for its project involving children.

Our investigation revealed that the awardee had no prior experience with human subjects research and had not received adequate IRB approval before starting the NSF project. We also found identifying personal information about children participating in the program publicly available on the awardee's web site, which also cited NSF as a funding source. The Common Rule specifically requires an IRB to determine that additional safeguards are in place to protect special groups, including children and others who may be vulnerable. On our recommendation, NSF suspended the award pending IRB approval of the project, and the awardee removed the website.

We worked with the awardee, its IRB, and NSF to achieve compliance, in part, by ensuring the IRB received all relevant information. Meanwhile, we learned the posting of the children's personal information on the web site was part of the awardee's non-NSF-supported activities.² After reviewing the materials, the IRB determined that the NSF project requires IRB oversight but involves not-greater-than-minimal risk to the participants. Following our recommendations, NSF urged the awardee to attend professional grants management training, required the awardee to submit the results of subsequent IRB reviews to NSF, has treated the award as an at-risk award, and lifted the suspension.



OIG attorneys Fara Damelin and Ginna Ingram confer about a case.

We found other awards in this NSF program that raised compliance issues under the Common Rule. Out of 17 awards, only 7 had been submitted designating human subjects involvement on the proposal cover page as required by NSF policy. NSF also explicitly requires awardees to certify IRB approval of human subjects work before an award is made. In this case, NSF had received only 3 IRB

² The awardee had established a connection between the NSF project and these activities by erroneously using NSF funds in these activities. To correct the accounting error the awardee credited the NSF grant account for the erroneous payments, thus severing the connection between the website and NSF and eliminating the need to have the IRB approve the children's web pages as part of the NSF award.

certifications before the awards were approved and funds expended. Furthermore, the program officer had failed to designate all 17 awards as involving human subjects on NSF's internal processing form.

In response to our recommendations, the affected NSF directorate corrected the 17 award files and provided awareness training for division directors and staff. It is working to sample active awards for compliance, and to institute a directorate-wide automatic hold in electronic proposal processing that requires program officers to actively confirm their review of human subjects issues. In the majority of directorates, all proposals are coded by default in the electronic proposal processing system as not having a human subjects component. At the agency level, NSF implemented and publicized web-based training to relevant program staff, and intends to modify the policy manuals to clarify program officers' responsibilities. NSF agreed to look into additional outreach methods and to make an informal assessment of program areas involving large-scale human subjects research, which may require refresher training for NSF personnel.

Conflicts Arise in Merit Review of Proposals

During this semiannual period, several matters arose that highlight how conflict-of-interests (COI) issues can arise in the process of NSF's merit review process. We received information that a program officer participated in the award of a proposal for which his fiancée was listed as a co-PI. When we interviewed him, the program officer denied having anything other than a collegial professional relationship with the co-PI, until he was confronted with the evidence. However, since he did not share financial interests or a household with the co-PI, there was neither a statutory COI violation, nor a violation of NSF's own COI rules. We pointed out to NSF that its rules for panelists and advisory committee members identified close personal relationships as raising COI concerns, and in response to our recommendation NSF added a parallel provision to the COI rules for NSF employees.

In addition, we investigated several other allegations of violations of the terms of the "Conflict-of-Interests and Confidentiality Statement for NSF Panelists" (the Confidentiality Statement) which is signed by NSF panelists prior to reviewing proposals:

- A panelist admitted lobbying and voting for a proposal from his university, even though the Confidentiality Statement clearly prohibits panelists from participating in the evaluation of proposals from their home institutions. Although the panelist believed his COI was irrelevant because the panel ultimately did not recommend the proposal, this did not mitigate his responsibility and we reiterated the importance of this rule to him.
- A panelist reviewed a proposal from an institution for which the panelist is a subcontractor. Although this would be a COI under NSF's rules, this proposal was reviewed as part of an interagency program, in a process initially governed by another agency's rules. This proposal was unsuccessful in the first stage, and the program has changed its review

procedures for the upcoming year in a manner that will prevent a recurrence of this issue.

- Review panelists discussed alleged prior unethical behavior of a PI whose proposal was being considered. The program officer overseeing the panel appropriately halted the discussion, and reminded the panelists to disregard the allegation in evaluating the merit of the proposal. Believing that the accused PI had the right to know of and defend against the allegation, one reviewer emailed the PI and others about the discussion. We emphasized to the reviewer that NSF policy is to bring allegations of unethical behavior to us, and that discussion held by panelists should not otherwise be shared with individuals outside the review process.

OIG FY 2003 Performance Report

This section describes OIG's accomplishments towards the three goals set forth in the OIG Performance Plan for 2003:

1. Increase OIG impact on NSF's effectiveness and efficiency.
2. Safeguard the integrity of NSF programs and resources.
3. Utilize OIG resources effectively and efficiently.

Under each of these goals, we identified several strategies for achieving the goal. For each strategy, we listed specific actions that we planned to complete during the performance period, which ran from April 1, 2003, to March 31, 2004.

Goal 1: Increase OIG Impact on NSF's Effectiveness and Efficiency

1. Identify and implement approaches to improve audit product quality and timeliness.
 - Continue to implement team-based auditing approach on high-risk audits.
 - Provide team-based audit training to audit staff and contract auditors.
 - Finalize audit guide for contract auditors; incorporate team-based auditing concepts in our contract audit guidance.
 - Finalize audit report quality standards.
 - Continue to enhance automated work-in-process audit tracking system.
 - Establish on-the-job training plan to ensure that new and existing audit staff quickly gain experience conducting audits of NSF awards and programs.
 - Develop Contracting Officer's Technical Representative procedures manual.

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Goal 3: Utilize OIG Resources Effectively and Efficiently	38

- Develop audit contract monitoring procedures manual.
- Develop audit quality control standards document.
- Develop measures to assess audit product quality and timeliness.
- Develop results-based performance measures for Audit Office in 2004.

OIG made significant progress towards achieving our goal of improving audit timeliness and quality. The team-based auditing approach we have adopted calls for formal meetings between auditors and managers at key points in an audit, thereby facilitating communications that result in timelier, higher quality audit reports. During 2003, the Audit Office implemented the team-based auditing approach on high-risk audits conducted by internal audit staff as well as contractor staff. We provided comprehensive team-based audit training to OIG audit staff and representatives from CPA firms under contract with OIG in joint training sessions in August 2003. The Audit Office will complete an audit guide for use by private accounting firms under contract with OIG early in the 2004 performance period. This document will provide detailed guidance for contractors on implementing team-based auditing concepts, and it will ensure that a consistent approach to the conduct of audits is taken by both internal and contractor audit staff.

The Audit Office also made progress in developing three other policy documents focused on quality assurance procedures and standards. First, we completed two procedures manuals for OIG audit staff responsible for monitoring contract audits that is expected to improve both the quality and timeliness of these reviews. In addition, the Audit Office is continuing to develop an audit quality control policy. When complete, the policy will establish detailed standards and expectations regarding audit independence, supervision, planning, documentation, team-based auditing, and outreach activities. To complete our program of quality assurance improvements, we developed performance measures for assessing the quality and timeliness of our audits.

During the past year, we made progress towards establishing an on-the-job training program to acquaint staff with the new quality assurance practices we developed and ensure that our audit work is consistent. The new training program, which we expect to complete in 2004, will also provide staff with opportunities to cross train among the various types of audit work we perform. We believe that cross-training will not only broaden and enhance the skills of our auditors in performing their current job, but will also result in improved versatility and job satisfaction.

In 2003 we continued to use the OIG Knowledge Management System (KMS) to track audit milestones, monitor audit resolution activity, and prepare data tables required in the semiannual report to the Congress. Several enhancements were added to the audit tracking system, including an audit planning module, an outreach tracking module, and an automated process for conducting trend analysis of historic audit data.

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

- Finalize audit planning policy document.
- Finalize historical trend analysis of audit findings.
- Develop a process for conducting future automated trend analysis.
- Strengthen OIG expertise in NSF programs to assist in setting audit priorities.
- Complete agency funding analysis by program and grantee institution to assist in setting audit priorities

The Audit Office made significant progress towards finalizing an audit planning policy document. It establishes a formal methodology for analyzing and performing assessments of risk, developing audit proposals based on those assessments, ranking audit proposals, and selecting audits based on an analysis of the staff resources available. Senior audit managers have reviewed the draft document and their comments have been incorporated.

A key component of the audit planning process is our strategy for using the data from past OIG audits to better manage future reviews. In 2003, the Audit Office completed a trend analysis that organized and measured the results of past audits going back to 1998 by type of finding and institution audited. This information enables us to better allocate scarce audit resources among the many organizations that receive NSF funds. We also developed a methodology that uses the KMS system to monitor the results of future audits for changes to these patterns. By the end of 2004, the historic audit data will be uploaded into our KMS system to fully integrate the trend analysis process.

We completed two strategies that will help inform the process for determining audit priorities. First, the Audit Office participated in the OIG Liaison Program, in which designated staff serve as points of contact to improve communication between NSF program staff and OIG. The Liaison Program provides an opportunity for audit staff to learn details about agency award programs and internal operations that can be used to uncover areas of risk not readily apparent. In addition, the Audit Office successfully completed an in-depth analysis of agency funding patterns by program and institution. The results will provide audit staff with additional insights into high-risk awardees and program areas.

3. Strengthen outreach regarding effectiveness and efficiency issues.

- Finalize an OIG outreach plan to support NSF's efforts to inform the awardee community about the financial and compliance standards that matter for efficiency and effectiveness.
- Conduct outreach sessions on effectiveness and efficiency issues for NSF staff and awardees at NSF, institutions, conferences, and other appropriate sites.

The Audit Office completed an outreach plan that includes three strategies:

gaining a better understanding of NSF activities and operations; monitoring audit-related changes in the professional audit and OIG communities; and educating NSF, its stakeholders, and the external community on our audit issues and activities. To facilitate formal tracking and measurement of OIG outreach activities in 2003, we developed an outreach module in the KMS system. Implementation of these actions will provide a more consistent approach to conducting, tracking, and measuring the effectiveness of outreach by audit staff in 2004.

Goal 2: Safeguard the Integrity of NSF Programs and Resources

1. Identify ways to improve case product quality and timeliness.

- Ensure investigations are consistent with PCIE/ECIE quality standards for investigations.
- Ensure consistency of investigative efforts with Investigations Manual.
- Make high-quality oral and written presentations to prosecutors or agency decision makers.
- Assess timeliness and appropriateness of case milestones.
- Ensure high-quality referral of audit issues arising from investigations.
- Maintain high-quality training for investigators.
- Assess results-based performance measures for applicability to OIG investigations activities in 2004
- Perform quality check for each investigation.

NSF OIG has assumed a co-leadership role in preparing the ECIE community for investigative peer review, a job that has also improved our own focus on quality and readiness for the peer review. We continued to improve our internal processes and procedures by issuing two updates to our Investigations Manual. We have shared our manual with other ECIE offices and engaged in discussions aimed at improving investigative processes. We spearheaded the ECIE adoption of the Qualitative Assessment Review Guidelines for Federal Offices of Investigation and developed a peer review schedule for the 17 participating ECIE offices. We are coordinating the training of ECIE staff that will participate in the peer review effort.

The Office of Investigations has significantly increased its use of contract forensic services, thereby strengthening our abilities to investigate financial fraud. We have substantially increased the number of referrals we provide to audit in connection with internal control matters arising from our cases, as we continue to refine their quality. In order to more effectively investigate instances of research misconduct, we have also increased the number of site visits made in connection with these cases. We have worked closely with prosecutors to ensure that the evidence we present is effective, and results in proportionate action being taken against the perpetrators. Our investigation and management implication reports have prompted agency officials to initiate significant actions against culpable

individuals, and in some cases to modify agency processes to avoid future wrongdoing.

Finally, we scrutinized each case closeout and investigation report to ensure that it meets standards articulated in the PCIE/ECIE Quality Standards for Investigations and to assess the potential for taking subsequent actions such as issuing management implication reports or audit referrals. Management closely monitored the timeliness of the investigative process through the milestones entered in the OIG Knowledge Management System for each project. Investigators continued to attend training to expand and hone their skills. Most notably during this period, we arranged office-wide training on forensic accounting and fraud investigations.

2. Strengthen proactive activities (outreach, reviews) in integrity matters.

- Ensure information is accessible to public and NSF.
- Develop a Compliance brochure.
- Emphasize OIG liaison activity.
- Continue developing Grant Fraud Working Group.
- Monitor and assess the effect of outreach on targeted communities.
- Analyze closed cases to assess areas for proactive reviews.
- Monitor and assess the effect of proactive activities on case processing time, priorities, and allegation assessment.
- Ensure all FOIA/PA requests are responded to in a timely manner.

The Office of Investigations has emphasized both proactive and reactive capabilities to ensure that our efforts support the Inspectors General's statutory mandate to prevent and detect fraud and abuse. Our proactive data-mining efforts have produced both investigative leads that have resulted in an increased number of significant cases, as well as the discovery of management control issues that were referred to the agency in management implication reports. The serious nature of some of these cases caused us to reevaluate our outreach efforts and to focus on high impact events. Feedback we have received indicates that our presentations are effective and contain information that is both helpful and meaningful. We have updated the IG website to en-



OIG associate, Dr. Catherine Ball lecturing at Capital Science 2004 Conference.

sure the clarity and accessibility of the information. We also continue to present at NSF's conflicts of interests briefings, new program manager orientations, and regional grants seminars.

Before publishing a compliance brochure, we have decided to focus our efforts on developing a compliance initiative, from which we will develop a brochure. We published two new brochures this year: one on employee use of peer-to-peer file-sharing software and another on identity theft. Both brochures were developed in conjunction with the agency to enhance the working environment of agency employees. These brochures were introduced at the OIG Open House and are available to anyone visiting our offices or our website. Our liaisons continue to meet with their assigned NSF offices and are encouraged to use the two new brochures as focal points for their discussions. We convened one meeting of the inter-agency Grant Fraud Working Group which was attended by over 50 members of the OIG community, including criminal investigators, auditors, and senior managers from 20 different OIGs. More meetings are planned. Finally, we were able to process all of the Freedom of Information Act (FOIA) and Privacy Act requests we received within the allotted time frames.

Goal 3: Utilize OIG Resources Effectively and Efficiently

1. Utilize professional expertise and talents of all OIG staff.

- Conduct annual survey of OIG staff to obtain its views on the effectiveness of:
- OIG use of its resources in personnel, equipment, technology and contracting,
- Management planning, policies, and procedures,
- Internal communications and coordination, and
- OIG impact on NSF.
- Analyze survey results and develop corrective actions for the problems identified.
- Continue the use of the team approach in brainstorming and resolving OIG internal management issues and in developing OIG activities.
- Complete development of an integrated Knowledge Management System within the OIG.

With a response rate of just over 60 percent, our second annual survey of OIG staff revealed that progress has been made in a number of management, resource, support, and policy areas. At the same time, it also showed that there is room for improvement in others. We view this survey as an effective means for taking the measure of how well we are using staff professional expertise and whether we are providing our employees with the guidance and resources needed to do their jobs. The results conveyed strong satisfaction in several areas, including our overall mission as an office, the availability of computer and training

resources, and the support of family-friendly policies. OIG received high marks in management's support of alternative work schedules and telecommuting, and most agreed that the office provides a working environment supportive of a balance between work and personal life. There was a consensus that diversity is valued and that harassment is not tolerated in the workplace. Staff reported that they understand the goals and mission of this office. They also acknowledged the professional competence, strong ethics, and mutual respect displayed by their coworkers. The respondents believe that we treat other entities and individuals in an equitable manner.

The OIG appropriation for FY 2003 allowed sufficient resources to cover increased staffing costs, including ten new positions; all audit, investigative, and administrative contract requirements; and internal technology support. OIG continued to make substantial use of the team approach for planning office activities and resolving internal management issues. Committees and working groups were effective in planning and conducting a highly successful OIG Open House, assessing internal communications and coordination issues that were identified in last year's staff survey, planning the annual office retreat, administering and analyzing the results of this year's staff survey, refining drafts of a new policy on referrals and informal consultations within OIG, and planning for the move of three-quarters of our staff into new office space.

We had intended to complete the new Knowledge Management System (KMS), which integrates and replaces dozens of pre-existing or outdated "stovepipe" applications, but at the end of the performance period, work was still ongoing to develop additional improvements to the system, incorporate a more effective referral process among OIG units, and resolve various issues that arose during the testing of earlier phases. Through its integration with the NSF email system, KMS now supports office-wide communications about project assignments, accomplishments, and other significant events. Over the past year, we added modules for tracking and reporting on outreach activities, FOIA requests, investigative recoveries, and staff training. We also added mechanisms for preparing and submitting audit proposals and for classifying the results of investigations. A new information technology position will be filled early in the 2004 performance period, and one of its roles will be to maintain and manage future upgrades to KMS after the contractor has finished initial development.

The staff survey revealed that we have more work to do on continuing problems in information sharing, coordination, cooperation, and communication among our OIG units. These issues are further addressed in #3 below.

2. Strengthen staff recruitment, development, and training.

- Use OIG survey results and other information to analyze OIG skill mix to determine whether it will meet future priority needs of the office.
- Assume greater responsibility within OIG for handling personnel recruitment and hiring.
- Develop an office-wide process for individual development plans.

- Provide OIG training in NSF programs and procedures, professional skills, and other subjects that have wide application within the office.
- Ensure that all OIG staff meet OIG training requirements.
- Add at least one critical element to all staff performance appraisals to tie individual performance to the OIG Performance Plan.

OIG survey results and other information were used to prepare an analysis of past and present OIG skill mixes and to determine hiring requirements for the year. While OIG continued to rely on NSF for human resource administrative support, we took several steps to facilitate the process. First, we made greater use of direct hire programs that enable expedited hiring procedures with less cumbersome administrative requirements. During the 2003 performance period, we took full advantage of the Federal Career Intern Program, Federal Cybercorp Scholarship for Service, and the Federal Scholars Program to recruit excellent staff for entry-level positions across the office. Second, we made more effective use of the agency's electronic E-Recruit system to streamline hiring outside the special federal programs. Early in the period we participated in an NSF working group charged with developing ways to improve the system, and it now provides the flexibility we need to screen applicants for our varied positions. Third, we selected a management analyst who will assume several personnel-related responsibilities, including oversight of the individual development plans, updating position descriptions, and performing liaison functions with the agency's Human Resource Management staff. Over the last 12 months, OIG hired 15 staff members, including 10 for new positions.

Student interns Chae Kim (right) and Julia Purn (below) visit with the IG and Deputy IG.



During this period we conducted a pilot program for individual development plans. It enabled employees and their supervisors to identify near-term professional development goals and the types of work assignments and training that would promote the achievement of those goals. At the midterm, employees and supervisors gauged their progress and made any adjustments, and now that we are at the end of the period, they will assess in writing how the extent to which the goals were met. We will evaluate the results of this pilot early in the 2004 performance period. We also offered telecommuting to OIG staff, and 25 have been authorized to participate in the program, most on an ad hoc basis.

Each month we held an all-staff meeting that featured an outside speaker on a program or topic of interest to OIG and presentations by OIG staff on their respective activities. We also conducted office-wide training in forensic accounting and fraud investigations, as well as training for all auditors and audit contractors on team-based auditing. Except for those most recently hired, all staff members met the OIG requirement for at least 24 hours of job-related training during the period. All performance appraisal standards were revised to include a critical element that ties individual performance to the OIG Performance Plan.

3. Improve communication and collaboration within OIG.

- Develop an intra-office referral policy.
- Provide timely information exchange and referrals between the audit and investigation units. Provide Audit Office support for financial analysis services in support of investigative activities.
- Develop indicators for deciding when it makes sense to use multi-disciplinary professional resources on OIG assignments.
- Provide opportunities for joint training and discussions of cross-cutting issues for auditors, investigators, and other OIG staff.
- Assess Grant Fraud Indicators pilot program.
- Share information about audit and investigative activities at all-staff meetings.

In response to the findings of last year's staff survey, OIG devoted its annual retreat to examining issues on communications and coordination within the office. The staff continued to meet in small groups to brainstorm alternative courses for addressing the problems that had been identified, and OIG held a follow-up mini-retreat to discuss possible solutions in a plenary session. A Communications Committee was formed early in the period to review ideas that came out of the staff retreats and the network groups. The committee recently finished refining a draft policy, which is currently being reviewed by the senior management staff. In addition to setting forth essential principles and procedures, the policy will also establish technological processes, through the OIG Knowledge Management System, for ensuring timely information exchange and referrals among the units. It will also provide automated prompting for feedback to the staff members making referrals. We anticipate implementing a new policy early in the 2004 performance period.

A contractor provided financial analysis expertise for investigative activities, with support from the Audit Office. It has proven invaluable to investigations that involve financial complexity, and it assists investigators in identifying potential matters for referral to the Audit Office. We were unable to develop indicators for the use of multi-disciplinary resources, nor were we able to complete an assessment of the Grant Fraud Indicators pilot program. At each monthly all-staff meeting, the Audit and Investigations Offices shared information on investigative and audit activities. In addition, senior managers from both units met periodically throughout the year to discuss issues of common concern. The Audit Office provided training on the new fraud audit standard to audit and investigative staff, and the Investigations Office included auditors in the planning and execution of investigations based on Audit Office referrals.

4. Ensure effective external communications and consultation.

- Produce timely external reports on OIG results and issues.
- Provide testimony and other requested information to congressional committees.
- Provide briefings to Consult with the NSB, Congress, OMB, NSF, and others regarding OIG plans, priorities, and progress.
- Update NSF leadership regularly on OIG activities and concerns.
- Play an active role in the IG community.

All semiannual reports to the Congress, the budget submissions to the Office of Management and Budget and to the Congress, Management Letter to NSF, annual OIG performance Report, and responses to data calls from the Executive Council for Integrity and Efficiency were completed by the prescribed target dates. The IG testified twice at Congressional hearings and provided all information requested by committee members and staff concerning OIG plans and the progress and results of audits, investigations, and other reviews. Our staff presented regular briefings to the Administrative and Oversight Committee of the National Science Board on OIG activities and other matters of interest to the Board. The IG and Deputy IG had six regularly scheduled meetings with the NSF Director and Deputy Director to update them on ongoing OIG activities, and more urgent issues were brought to their attention immediately.

OIG engaged in extensive outreach efforts during the 12-month period, including presentations at 7 NSF Program Management Seminars (orientations for new program officers), over 20 briefings on conflicts of interest for NSF employees, and approximately 25 presentations to principal investigators, university faculties and administrators, students, professional associations, and other members of the research community. OIG staff also served as guest lecturers, panel members, and moderators before various government and private-sector audiences. We also consulted frequently with representatives from NSF, other federal agencies, OMB, Congressional committees, and other OIGs on matters of mutual interest.

OIG has been active in support of the President's Council on Integrity and Efficiency and the Executive Council on Integrity and Efficiency, which are composed of all federal IGs. The NSF IG continued to serve as chair of the Committee on Misconduct in Research and as a member of the Inspection and Evaluation Committee and Investigations Committee. She also served as the elected representative to the PCIE/ECIE Council. The Deputy IG served on an ad hoc committee to update the PCIE/ECIE Strategic Framework, and other OIG staff members have participated in various PCIE/ECIE initiatives, from training other OIGs in handling research misconduct investigations to developing peer review standards. We convened a meeting of the inter-agency Grant Fraud Working Group that was attended by over 50 members of the OIG community, including criminal investigators, auditors, and senior managers from 20 different IG offices.

Statistical Data

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Reporting Terms Defined

Some of the more common terms that we use in reporting audit statistics and findings are defined below:

Questioned Cost. Auditors question costs because of an alleged violation of a provision of a law, regulation, grant, cooperative agreement, or contract. In addition, a questioned cost may be a finding in which, at the time of the audit, either a cost is not supported by adequate documentation, or the expenditure of funds for the intended purpose is deemed unnecessary or unreasonable.

Unsupported Cost. A cost that is questioned because it is not supported by adequate documentation at the time of audit.

At-Risk Cost Sharing. Cost sharing is identified as “at risk” if an awardee is lagging in meeting its cost-sharing obligation for an award that is still active. In some situations, the awardee may purport to be funding its obligation but lacks internal controls and documentation to support its claim, making it difficult to determine their allowability under federal cost principles.

Management Decision. Management’s evaluation of the findings and recommendations included in the audit report, and the issuance of a response or final decision. It is important to note that NSF is responsible for making a management decision regarding questioned costs that determines whether they will be sustained (i.e., disallowed) or allowed.

Funds Put to Better Use. Audit recommendations that identify ways to improve the efficiency of programs frequently lead to prospective benefits over the life of an award or funds put to better use. Examples include reducing outlays, deobligating funds, or avoiding unnecessary expenditures.

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 that no actions were necessary, final action occurs when a management decision is issued.

Compliance or Internal Control Issues. Audits often result in recommendations either to improve the auditee’s compliance with NSF and federal regulations, or to strengthen the auditee’s internal control structure to safeguard federal funds from fraud, waste, abuse, and mismanagement.

Audit Reports Issued with Recommendations for Better Use of Funds

	Dollar Value
A. For which no management decision has been made by the commencement of the reporting period	\$4,619,248
B. Recommendations that were issued during the reporting period	\$7,400,000
C. Adjustments related to prior recommendations	\$0
Subtotal of A+B+C	\$12,019,248
D. For which a management decision was made during the reporting period	\$280,455
i) Dollar value of management decisions that were consistent with OIG recommendations	\$280,455
ii) Dollar value of recommendations that were not agreed to by management	\$0
E. For which no management decision had been made by the end of the reporting period	\$11,738,793
For which no management decision was made within 6 months of issuance	\$4,338,793

Audit Reports Issued With Questioned Costs

	Number of Reports	Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the reporting period	10	\$2,877,430	\$39,247
B. That were issued during the reporting period	9	\$702,359	\$117,300
C. Adjustments related to prior recommendations	2	\$337	\$0
Subtotal of A+B+C	21	\$3,580,126	\$156,547
D. For which a management decision was made during the reporting period:	9	\$2,951,456	\$39,247
1. Dollar value of disallowed costs	N/A	\$1,606,227	N/A
2. Dollar value of costs not disallowed	N/A	\$1,345,229	N/A
E. For which no management decision had been made by the end of the reporting period	10	\$628,670	\$117,300
For which no management decision was made within 6 months of issuance	2	\$50,987	\$0

Audit Reports Involving Cost-Sharing Shortfalls

	Number of Reports	Cost-Sharing Promised	At Risk of Cost Sharing Shortfall (Ongoing Project)	Actual Cost Sharing Shortfalls (Completed Project)
A. Reports with monetary findings for which no management decision has been made by the beginning of the reporting period:	1	\$5,758,278	\$0	\$1,209,714
B. Reports with monetary findings that were issued during the reporting period:	0	\$0	\$0	\$0
C. Adjustments related to prior recommendations	0	\$0	\$0	\$0
Total of Reports with Cost Sharing Findings (A+B+C)	1	\$5,758,278	\$0	\$1,209,714
D. For which a management decision was made during the reporting period:	1	\$5,758,278	\$0	\$1,209,714
1. Dollar value of cost-sharing shortfall that grantee agreed to provide	N/A	N/A	\$0	\$0
2. Dollar value of cost-sharing shortfall that management waived*	N/A	N/A	\$0	\$1,209,714
E. Reports with monetary findings for which no management decision has been made by the end of the reporting period	0	\$0	\$0	\$0

*Indicates the dollar value waived by management primarily due to additional documentation provided during audit resolution to support the at-risk amounts.

Status of Internal NSF Recommendations

Open Recommendations (as of 9/30/03)	
Recommendations Open at the Beginning of the Reporting Period	41
New Recommendations Made During Reporting Period	22
Total Recommendations to be Addressed	63
Management Resolution of Recommendations ³	
Awaiting Resolution	28
Resolved Consistent With OIG Recommendations	35
Management Decision That No Action is Required	0
Final Action on OIG Recommendations ⁴	
Final Action Completed	15
Recommendations Open at End of Period	48
Aging of Open Recommendations	
Awaiting Management Resolution:	
0 through 6 months	22
7 through 12 months	4
More than 12 months	2
Awaiting Final Action After Resolution:	
0 through 6 months	7
7 through 12 months	8
More than 12 months	5

³“Management Resolution” occurs when the OIG and NSF management agree on the corrective action plan that will be implemented in response to the audit recommendations.

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

List of Reports

NSF and CPA Performed Reviews

Report Number	Subject	Questioned Costs	Unsupported Costs	Better Use of Funds	Cost Sharing At-Risk
04-1-001	Non-profit Corporation	\$0	\$0	\$0	\$0
04-1-002	State university	\$189,114	\$0	\$2,400,000	\$0
04-1-003	Community college	\$115,763	\$111,222	\$0	\$0
04-1-004	Community college	\$0	\$0	\$0	\$0
04-1-005	State university system	\$0	\$0	\$0	\$0
04-1-006	For-profit company	\$0	\$0	\$0	\$0
04-1-007	Non-profit Foundation	\$25,160	\$6,078	\$0	\$0
04-2-002	NSF internal review	\$0	\$0	\$0	\$0
04-2-004	NSF internal review	\$0	\$0	\$5,000,000	\$0
04-6-001	Non-profit corporation	\$0	\$0	\$0	\$0
	Total:	\$330,037	\$117,300	\$7,400,000	\$0

NSF-Cognizant Reports

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
04-4-001	Non-profit research institute	\$0	\$0	\$0
04-4-002	School district	\$0	\$0	\$0
04-4-003	School district	\$0	\$0	\$0
04-4-004	Science museum	\$0	\$0	\$0
04-4-005	Educational association	\$0	\$0	\$0
04-4-006	Science organization	\$0	\$0	\$0
04-4-007	School district	\$13,705	\$0	\$0
04-4-008	Non-profit society	\$0	\$0	\$0
04-4-010	State university	\$0	\$0	\$0
04-4-011	School district	\$0	\$0	\$0
04-4-012	Non-profit consortium	\$0	\$0	\$0
04-4-013	Non-profit organization	\$0	\$0	\$0
04-4-014	Scientific society	\$0	\$0	\$0
04-4-015	Professional association	\$124,676	\$0	\$0
04-4-016	Scientific consortium	\$0	\$0	\$0
04-4-017	School district	\$0	\$0	\$0
04-4-018	School district	\$0	\$0	\$0
04-4-019	Non-profit corporation	\$0	\$0	\$0
04-4-020	School district	\$0	\$0	\$0
04-4-021	Research institute	\$0	\$0	\$0
04-4-022	Educational association	\$0	\$0	\$0
04-4-024	Non-profit association	\$0	\$0	\$0
04-4-025	School district	\$0	\$0	\$0
04-4-028	Non-profit academy	\$202,168	\$0	\$0
	Total:	\$340,549	\$0	\$0

Other Federal Audits

Report Number	Subject	Questioned Costs	Unsupported Costs	Cost Sharing At-Risk
04-5-009	College	\$9,068	\$0	\$0
04-5-013	Non-profit research center	\$705	\$0	\$0
04-5-045	Public School	\$22,000	\$0	\$0
	Total:	\$31,773	\$0	\$0

Audit Reports With Outstanding Management Decisions

This section identifies audit reports involving questioned costs, funds put to better use, and cost sharing at risk where management had not made a final decision on the corrective action necessary for report resolution with 6 months of the report's issue date. At the end of the reporting period there were three reports remaining that met this condition. The status of recommendations that involve internal NSF management is described on page 50.

The IG is continuing discussions with Agency management on audit report number 03 1007 to reach a final decision on audit resolution. OMB Circular A-50 defines resolution as "the point at which the audit organization and agency management...agree on action to be taken on reported findings and recommendations; or, in the event of disagreement, the point at which the audit follow-up official determines the matter to be resolved." In keeping with OMB Circular A-50, the IG considers audit report number 03-1007 unresolved. In contrast, the Agency believes the audit is resolved. Recommendations for better use of funds and questioned costs in the subject report total \$3,100,438 and \$4,661, respectively.

Investigations Case Activity

October 1, 2003 - March 31, 2004

	Preliminary	Civil/Criminal	Administrative	Total
Active Cases at Beginning of Period	75	40	40	155
Opened Cases	109	54	46	209
Closed Cases	150	28	32	210
Active Cases at End of Period	34	66	54	154

Investigations Case Statistics

Referrals to DOJ	2
Criminal Convictions/Pleas	2
Civil Settlements	0
Administrative Actions	4
Investigative Recoveries	\$147,978.10
Research Misconduct Findings by NSF	1
Cases Forwarded to NSF Management for Action	3
Cases Forwarded to NSF Management in Prior Periods Awaiting Action	1
Assurances and Certifications ⁵	
Number of Cases Requiring Assurances During This Period	2
Number of Cases Requiring Certifications During This Period	2
Assurances Received During This Period	3
Certifications Received During This Period	0
Number of Debarments in Effect During This Period	5

⁵ NSF accompanies some actions with a certification and/or assurance requirement. For example, for a specified period, the subject may be required to confidentially submit to OIG a personal certification and/or institutional assurance that any newly submitted NSF proposal does not contain anything that violates NSF regulations.

Freedom of Information Act and Privacy Act Requests

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

- We received 10 FOIA requests this reporting period. The response time ranged between 4 days and 20 days, with a median of 16 days and the average around 15 days.
- No Privacy Act requests were received this reporting period.

October 17, 2003

MEMORANDUM

To: Dr. Warren Washington
Chair, National Science Board

Dr. Rita R. Colwell
Director, National Science Foundation

From: Dr. Christine C. Boesz
Inspector General, National Science Foundation

Subject: Management Challenges for NSF in FY 2004

As required by 31 U.S.C. § 3516(d), I am pleased to submit our annual statement summarizing what the Office of Inspector General (OIG) considers to be the most serious management and performance challenges facing the National Science Foundation (NSF). We have compiled this list based on our audit work, general knowledge of the agency's operations, and the evaluative reports of others, such as GAO and NSF's various advisory committees, contractors, and staff.

Because of this year's accelerated financial and performance reporting schedule, we are providing the list in October rather than December. There has been no fundamental change in the challenges this year. I should note, however, that NSF has made progress in addressing the challenges OIG has identified. The 11 specific challenges fall into five general categories, the first four of which are linked to the President's Management Agenda: 1) strategic management of agency resources, 2) improved financial performance, 3) expanded electronic government, 4) budget and performance integration, and 5) program-specific challenges.

1. Strategic Management of Agency Resources

Workforce Planning and Training

Planning for NSF's future workforce needs and training large numbers of temporary staff remains a serious problem. The workload of the agency, as reflected by the number of proposals forwarded to NSF for review, has increased by 36% over the past three years, while the agency's permanent workforce has increased just 3.6% over the past 20 years. Although advancements in technology have enhanced productivity across the board, NSF's rapidly increasing workload has forced the agency to become increasingly dependent on temporary staff and contractors to handle the additional work. For the second year in a row, NSF's Management Controls Committee has cited the grim assessments submitted by the directorates and called human capital "a significant concern."

In addition, we consider NSF's reliance on temporary personnel, particularly in management positions, to be an area of program risk. According to NSF, 59% of the agency's program officers are in a temporary status, such as rotators from research institutions. Managers who serve at NSF on a short-term basis frequently lack institutional knowledge and are less likely to make long-term workforce planning a priority.

NSF's efforts to justify an increase in staff have been impeded by the lack of a comprehensive workforce plan that identifies workforce gaps and outlines specific actions for addressing them. Without such a plan, NSF cannot determine whether it has the appropriate number of people and competencies to accomplish its strategic goals. It was partly for this reason that NSF contracted in FY 2002 for a "business analysis," a multi-year review of its core business processes that will include a human capital management plan. As the business analysis approaches its mid-point, the preliminary assessment provided by the contractor confirms that NSF's current workforce planning activities are limited and identifies opportunities for improvement.

The first draft of the human capital management plan is expected to be only a blueprint for developing a process for managing human capital, containing few specific recommendations that will have near-term impact. According to the project schedule, it will be two more years before the plan will identify the specific gaps that NSF needs for justifying budget requests for additional staff resources. We believe that NSF cannot afford to wait that long to address its workforce issues.

Administrative Infrastructure

NSF's directorates again reported as part of their annual certification of the agency's management controls that some of the resources necessary to administer their responsibilities are inadequate. Travel funds and office space remain scarce, and these shortages impede the ability of staff to properly oversee existing awards. Adequate travel funds are necessary to conduct on-site inspections and monitor large infrastructure projects and other awards. The lack of office space adversely affects staff morale, the recruitment of new staff, and the agency's ability to store sensitive documents. If office space is inadequate at current workforce levels, it will severely constrain the agency's ability to add the staff needed to keep pace with its growing workload and budget.

The agency states that it is addressing these shortages through budget analyses and planning, assessments of space management and allocation, and increased emphasis on innovative approaches. However, 7 of the 10 directorates cited administrative resource shortages as undermining effective management controls and creating significant concern.

2. Improved Financial Performance

Management of Large Infrastructure Projects

Our audit of the Gemini Project in FY 2001 recommended that NSF improve its oversight and management of large infrastructure projects by, among other things, updating and expanding existing policies and procedures. In FY 2002, we released an audit report of the financial management of NSF's large facility projects

that raised additional concerns about their management. The audit, which was conducted at the request of Congress, found that NSF's policies failed to ensure 1) that the projects remained within authorized funding levels and 2) that accurate and complete information on the total costs of major research equipment and facilities was available to decision makers. NSF responded that it would combine corrective actions recommended by this audit with those initiated as a result of the earlier Gemini audit.

During the past year NSF has continued to make gradual progress toward completing the corrective action plans. Thus far, the agency has implemented approximately half of the original recommendations, including providing guidance to staff for charging expenditures to the proper appropriations account. In June 2003, NSF hired a new Deputy Director for Large Facility Projects, and in July the agency issued a Facilities Management and Oversight Guide. NSF has also begun to offer Project Management Certificate Programs through the NSF Academy to help program officers improve their skills in managing large facility projects.

Nonetheless, key actions remain incomplete. Although the agency is planning supplements to the Facilities Management and Oversight Guide, it does not yet address the problem of recording and tracking the full cost of large facility projects, and it needs to contain more practical guidance for staff who perform the day-to-day work. A systematic process for reporting and tracking both the operational milestones and the associated financial transactions that occur during a project's lifecycle, particularly those pertaining to changes in scope, is still needed. Finally, staff involved with large facility projects need to be trained on the revised policies and procedures that affect funding, accounting, and monitoring.

Post-Award Administration

While NSF has a proven system for administering its pre-award and award disbursement responsibilities, the agency still lacks a comprehensive, risk-based program for monitoring its grants once the money has been awarded. As a result, there is little assurance that NSF award funds are adequately protected from fraud, waste, abuse and mismanagement. Recent audits of high-risk awardees, such as foreign organizations and recipients of Urban Systemic Initiative (USI) grants, confirm that in the absence of an effective post-award monitoring program, problems with certain types of grants tend to recur.

In FY 2002, NSF reviewed 35,165 proposals in order to fund 10,406 grants and cooperative agreements. Given the amount of work required to process an award, NSF is challenged to monitor its \$18.7 billion award portfolio (including all active multi-year awards) for both scientific accomplishment and financial compliance. Booz-Allen and Hamilton estimates that program officers spend just 23% of their time on award management and oversight activities and that program directors commit only 12% of their time to these efforts. During the FY 2001 and 2002 audits of NSF's financial statements, weaknesses in the agency's internal controls over the financial, administrative, and compliance aspects of post-award management were cited as a reportable condition.

NSF management has recognized these concerns and is taking steps to improve its award administration and monitoring activities. The agency has

developed a risk assessment and award-monitoring document to provide guidance to staff responsible for tracking the financial aspects of awards. Using this guidance, NSF has begun to identify awardees requiring a higher level of oversight and to perform on-site evaluations of their activities. NSF has also included award management and oversight as a core business process to be evaluated in its agency-wide business analysis.

While these actions are encouraging, more needs to be done. NSF should provide more detail in its Risk Assessment and Award Monitoring Guide to ensure both comprehensive and consistent award monitoring activities. In addition, NSF's current practices should be strengthened by increasing the application of simple, cost-effective monitoring tools, such as periodic telephone calls to monitor performance and provide technical assistance, random desk reviews to ensure compliance with reporting requirements, and comparisons of financial and progress reports to proactively locate potential problems. Finally, NSF would benefit from better oversight coordination between its program officers and financial and grants managers to ensure effective sharing of information and action to address compliance issues.

Cost Sharing

Cost sharing refers to the contribution of financial or in-kind support by recipients of federal grants to the cost of their research projects. In the past, NSF program officers have usually requested cost sharing to help determine an awardee's commitment to a project and to leverage federal support of research. Federal guidelines require that the accounting of cost-shared expenses be treated in a manner consistent with federal expenditures. However, our past audit work indicates that many awardees do not adequately account for or substantiate the value of cost-shared expenditures, raising questions about whether required contributions are actually being made.

During the past year NSF has employed a dual strategy for dealing with this challenge. First, NSF has changed its policy to require cost sharing above the statutory requirement only when there is tangible benefit to the awardee, such as a facility that will outlast the life of the research project or income derived by the awardee as a result of the research. The agency also states that it is providing greater oversight in the risk assessment protocol and site reviews. It is too early to determine whether the change in policy is having the intended effect -- reducing cost-sharing not required by statute or program solicitation -- or to assess the effectiveness of the new risk assessment protocol. However, increased funding for travel will be needed to implement the site reviews associated with the new risk protocol, and several NSF directorates recently reported that the resources available for travel were inadequate (see Administrative Infrastructure).

3. Expanded Electronic Government

Information Security

The challenge for NSF is to implement a security program that protects key information and information systems against unauthorized access, misuse, and corruption, while maintaining the open and collaborative working environment

necessary to carry out NSF's mission. Despite having made significant progress strengthening information security over the past few years, the recent hacking of the U.S. Antarctic Program's operations center in a high-profile but unsuccessful extortion attempt is a dramatic example of how vulnerable some parts of NSF's network remain to this persistent threat.

NSF's Management Controls Committee describes IT security as a significant concern in the wake of recent regional electrical blackouts, disruptions to NSF's computer network, and the demand for improved systems integration from NSF staff. Our FY 2003 review of NSF's information security program identified three significant deficiencies: lack of certification and accreditation of major systems, vulnerabilities in the United States Antarctic Program information systems, and inadequate development and implementation of agency-wide security policies. Although NSF management disagreed with our assessment of the severity of these problems, it agreed with our recommendations and is taking action to correct the problems.

The agency deserves credit for the improvements made to its security program in recent years, including implementation of a mandatory security awareness training program, establishment of an intrusion detection system, formal assignment of security responsibilities and authorities, restructuring of key security positions, appointment of an agency-wide security officer, updated security policies and procedures, and certification and accreditation of most major systems. These accomplishments are evidence of the agency's commitment to information security. However, as information security threats become more aggressive and potentially more destructive, the challenge to NSF's security program will be to provide increasing vigilance, continuous system improvement, and support at all organizational levels to ensure the integrity, confidentiality, and availability of mission critical information and information systems.

4. Budget and Performance Integration

GPRAs Reporting

The Government Performance and Results Act (GPRA) was enacted by Congress in 1993 and requires each agency to produce a strategic plan that establishes specific goals against which its performance can be objectively evaluated. Building on the foundation of GPRA, the President's Management Agenda has sought to link program performance with budget decisions about agency funding. To accomplish this goal, the Office of Management and Budget (OMB) has introduced the Program Assessment Rating Tool as a means of integrating an agency's performance and budget.

But for agencies engaged in funding scientific research, GPRA poses a challenge because the benefits of basic research are not easy to measure and may not be evident for years to come. NSF relies in part on Committees of Visitors (COV) to do the difficult work of evaluating its award decisions and providing qualitative data about its performance that is used in GPRA reporting. In the past we have expressed concerns about the lack of validation for the COV information used in NSF's GPRA reports. A recent OIG audit of the COV process found that some COVs do not provide complete responses to questions regarding NSF's

strategic goals and indicators. While NSF acknowledges in its performance report that limitations may exist, it does not discuss the exact nature of the data limitations. OIG recommends that these data limitations be fully disclosed so that users of the information will not misinterpret the data.

The OIG report also notes that NSF has changed how it collects and reviews data for its GPRA performance reporting in ways that raise new concerns about the objectivity of the data collection process. Beginning with FY 2002, NSF established an external Advisory Committee for GPRA Performance Assessment that reviews and assesses NSF's performance in achieving its strategic goals and related performance indicators. The Committee relies heavily on COV reports, and NSF selected "nuggets," i.e., research, engineering, and education highlights, to make its assessments. Since the nuggets are judgmentally selected success stories and do not represent the performance of the entire research portfolio, we believe that their usefulness as a primary assessment tool is limited. If NSF continues to use judgmental sampling, it should clearly disclose and discuss its data collection methodology in order to better inform decision makers and to comply with GPRA's reporting requirements for a complete, balanced, and objective assessment of an agency's performance. Without either a change in its data gathering process or adequate disclosure of the method's limitations, the credibility of NSF's performance reporting is compromised.

Cost Accounting

The requirement to maintain managerial cost information has gained increasing recognition over the years as an important element of an agency's reporting system. It appears in the CFO Act of 1990, and has been a federal accounting standard since 1998. Most recently, the President's Management Agenda requires an effective accounting and reporting system in order to successfully integrate budget and performance information. The measurement and comparison of inputs to outputs is fundamental to any meaningful organizational evaluation. However, at present, NSF's information systems do not readily provide basic cost accounting information needed to link its costs to its program performance. The agency is only just beginning to focus on developing a cost accounting system that will enhance its management information systems and GPRA reporting.

The FY 2002 Management Letter Report notes that NSF's financial and award systems do not track or maintain cost data for its programs and projects, and costs incurred under different funding sources are not linked to provide program officers with information to monitor the full cost of a program or project. The FY 2000, 2001 and 2002 Management Letter Reports accompanying the annual financial statement audit reports recommended that NSF identify management cost information needs for its programs, activities and projects; establish output and outcome goals for each; and develop and report cost efficiency measures that align costs with output and outcome goals. Although NSF management plans to institute cost-measurement practices, they have stated that they must first work with the Office of Management and Budget to define NSF programs in order to establish a system for identifying and measuring the cost of these programs.

5. NSF Program-Specific Challenges

Management of U. S. Antarctic Program

The U.S. Antarctic Program provides the means by which American scientists are able to conduct polar research. Last year, the USAP sponsored nearly 700 researchers conducting 141 projects. Through its contractors, the USAP also operates the three U.S. year-round stations in Antarctica at McMurdo, Amundsen-Scott South Pole, and Palmer, as well as two research vessels. Two thousand civilian contract employees and U.S. military personnel support the work of the Antarctic scientists. NSF's contract for Antarctic support is both costly and complex. The contractor must have technical expertise in a variety of disciplines (medical, environmental engineering, etc.) and is responsible for managing a number of subcontractors in the U.S. and overseas. Therefore, it is important that NSF closely monitor the programmatic and financial performance of this large contract.

The oversight of the United States Antarctica Program remains an ongoing challenge for NSF in part because of its responsibility for the safety and good health of the more than 1000 scientists and contractors that work there during the year. When Antarctic-based personnel become ill questions are raised about whether additional measures can be taken to protect workers in Antarctica from being subjected to unnecessary risks. To address these questions, our office performed an audit of the occupational health and safety, and medical programs established by the USAP contractor.

We found that in general these programs are effective in protecting the health of Antarctic scientists and support staff. However, the audit report notes that facilities and infrastructure at the Antarctic research stations are deteriorating from age and use, and it recommends developing a life-cycle oriented capital asset management program that would serve as support for a dedicated line item (funding source) in its Research and Related Activities budget request. Also, the aged condition of the USAP's physical infrastructure was mentioned by two external committees charged with reviewing the USAP since 1997, and poses a potential health and safety hazard to the men and women who work in the harsh polar environment.

Broadening Participation in the Merit Review Process

A key NSF strategy is to broaden participation and enhance diversity in all NSF activities involving researchers, educators, and students. NSF reported both successes and frustrations in achieving their objectives over the past year. Significant gains have been made in attracting more proposals from women and minorities. Proposals from female PIs increased by 13% in 2002, while proposals from minority PIs have gone up by 29% over the past two years. NSF reported that they have expanded the use of seminars and workshops, focusing on underrepresented minorities, minority serving institutions, and geographic regions that have not in the past received major research support from the government.

However, the number of minority awards remains a relatively small percentage of the total number of awards (5%), and the percentage has only increased slightly over the past 8 years. In addition, NSF continues to lag in its attempts to track

diversity among reviewers participating in the merit review process. Increasing the number of minority reviewers is considered an effective means of promoting increases in the number of proposals from and awards to minority PIs. Demographic information was volunteered for only 3,507 out of a total of 37,943 distinct reviewers. NSF intends to continue its efforts to identify new reviewers from underrepresented groups, but states that it cannot require reviewers to provide demographic information.

Math and Science Partnership

In spite of the significant amount of money invested by the federal government in programs to improve K-12 education, the Nation's Report Card and other evaluations of math and science education continue to indicate that achievement gaps still exist between American schoolchildren and their foreign counterparts. The Math and Science Partnership Program was established to promote partnerships between state and local school districts, and colleges and universities to improve math and science education at the K-12 level. NSF made 23 multi-year awards worth approximately \$230 million in FY 2002, and 12 multi-year awards worth approximately \$203 million in FY 2003. NSF will fund many of these projects for up to five years.

To be successful, NSF will need to resolve difficult issues such as how best to facilitate partnerships between parties that are not used to working together (e.g., university math and science departments, and local school systems), determining how the success of the projects will be evaluated, and the challenge of monitoring awardees with limited experience in handling federal funds. Although NSF has developed a 6-pronged plan for the oversight and management of MSP awards that includes site and reverse site visits to awardees, use of cooperative agreements for the larger more complex awards, and a contract to develop a substantial overall program evaluation, the plan will be difficult to implement given resource and technical constraints. An audit of specific issues associated with the administration of the program is planned for the fall.

Reporting Requirements

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

- Reports issued, significant problems identified, the value of questioned costs and recommendations that funds be put to better use, and NSF's decisions in response (or, if none, an explanation of why and a desired timetable for such decisions). (See p. 5, 45)
- Matters referred to prosecutors, and the resulting prosecutions and convictions. (See p. 23, 57)
- Revisions to significant management decisions on previously reported recommendations, and significant recommendations for which NSF has not completed its response. (See p. 18, 55)
- Legislation and regulations that may affect the efficiency or integrity of NSF's programs. (See p. 9)
- OIG disagreement with any significant decision by NSF management. (None)
- Any matter in which the agency unreasonably refused to provide us with information or assistance. (None)

Acronyms

CFO	Chief Financial Officer
CIO	Chief Information Officer
COI	Conflict of Interest
COV	Committee of Visitors
DA	District Attorney
DACS	Division of Acquisition and Cost Support
DAEO	Designated Agency Ethics Official
DD	Division Director
DFE	Designated Federal Entity
DGA	Division of Grants and Agreements
DOJ	Department of Justice
ECIE	Executive Council of Integrity and Efficiency
FAC	Federal Audit Clearinghouse
FFRDC	Federally Funded Research and Development Center
FOIA	Freedom of Information Act
FY	Fiscal Year
GAO	General Accounting Office
GPM	Grant Policy Manual
GPRA	Government Performance and Results Act
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
IG	Inspector General
IRB	Institutional Review Board
KMS	Knowledge Management System
MIRWG	Misconduct in Research Working Group
MRE	Major Research Equipment
MREFC	Major Research Equipment and Facilities Construction
MSP	Math and Science Partnership
NSB	National Science Board
NSF	National Science Foundation
NSFC	National Natural Science Foundation of China
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPP	Office of Polar Programs
ORI	Office of Research Integrity
OSTP	Office of Science and Technology Policy
PCIE	President's Council on Integrity and Efficiency
PI	Principal Investigator
PFCRA	Program Fraud Civil Remedies Act
QCR	Quality Control Review
SBIR	Small Business Innovation Research
STTR	Small Business Technology Transfer

Acronyms (cont'd)

USAP	United States Antarctic Program
USA/EDVa	United States Attorney, Eastern District of Va.
USI	Urban Systemic Initiative
USP	Urban Systemic Program
VA	Veterans Administration

Organization Chart



