

Significant Reports

Fiscal Year 2005 Management Letter Report Cites Need for Improved Financial Management Practices

The FY 2005 Management Letter¹ identified 17 findings related to NSF's financial reporting controls and operations, 12 of which were repeated from the prior year. As a result of those findings, the Management Letter recommended that NSF: continue to improve its contracts and post-award monitoring programs; expand its definition of improper payments; seek guidance on the accounting treatment of post retirement benefits at Federally Funded Research and Development Centers (FFRDCs) and environmental clean-up costs in the Antarctic; report outcome-oriented cost efficiency measures; and develop accounting policies and procedures, including policies and procedures for the review and approval of purchase card transactions.

The Management Letter found continuing weaknesses in NSF's contracts and grants monitoring programs. For example, NSF did not approve the FY 2005 annual program plan of its largest advance-payment contractor, Raytheon Polar Services Corporation, until the end of the fiscal year. The auditors recommended that NSF approve contractors' annual program plans timely to prevent contractors from incurring unauthorized costs. Further, NSF did not always obtain timely annual cost incurred submissions on cost reimbursable contracts for which NSF is the contractor's cognizant agency. Since these contracts are initially based on cost estimates, federal regulations require that contractors submit cost incurred submissions within six months after the end of the contractor's fiscal year to promptly determine the actual cost of the contract for that year. The auditors recommended that NSF ensure that all cost reimbursable contractors submit cost incurred submissions and that NSF contracting officers review them timely.

¹ A management letter discusses findings identified during a financial statement audit that warrant management attention, but are not material in relation to the financial statements.

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For the fourth year the Letter found that NSF did not always receive timely (or any) final project reports or annual progress reports; and in some cases NSF approved new funding for an awardee that had not filed a required annual progress report. The auditors recommended that NSF ensure that these reports are received when they are due so that program performance can be properly evaluated. Documentation serves as a key record of the agency's observations and efforts to monitor an awardee and is a valuable source of information for management's oversight of the program.

For the second year, the Management Letter identified weaknesses in NSF's process of estimating improper payments as required by the Improper Payments Information Act 2002 (IPIA). For testing purposes, NSF defined erroneous payments as "expressly unallowable" payments, thus excluding unallowed, unallocable, or unreasonable costs as defined by IPIA. This limitation increases the risk that NSF has not identified all erroneous payments, and the auditors recommended that NSF use the IPIA's more inclusive definition of improper payments.

Also for the second year, the Management Letter recommended that NSF seek guidance from the Federal Accounting Standards Advisory Board (FASAB) to resolve two unusual issues. It suggests that NSF ask FASAB how to account for post retirement benefits at Federally Funded Research and Development Centers (FFRDC) that it wholly supports. In one case, neither NSF nor the FFRDC reported this liability on its financial statements. FASAB's guidance is necessary to ensure that the entity responsible for this liability is correctly recognizing, recording, and reporting it. The Letter also found that NSF needs to clarify its responsibilities for environmental clean-up costs in the Antarctic. Although the treaty that governs NSF's responsibilities in the Antarctic states that NSF has responsibility for remediation of environmental incidents, it does not appear to provide for concomitant liability. To ensure that NSF prepares accurate financial statements, the auditors recommended that NSF immediately ask FASAB how to account for clean-up costs for which it has a treaty obligation but no apparent legal liability.

For the fifth year the Letter stated that NSF does not report basic outcome-oriented cost efficiency measures, such as the cost of awarding or administering a grant, in its Performance and Accountability Report, but instead reports on administrative cost savings resulting from new technology and/or changes to business processes. Reporting both outcome-oriented cost efficiency measures and cost savings measures provides more useful information to stakeholders about the efficiency of NSF's internal grant-making and administering processes. The auditors therefore again recommended that NSF develop and report cost efficiency measures that relate to its output and outcome goals.

The Letter also reiterated a prior recommendation that NSF document its accounting policies and procedures. In addition, it recommended that NSF

develop standard policies and procedures for the review and approval of purchase card transactions. The lack of documented accounting policies and procedures can result in inefficient and/or duplicative accounting procedures. The lack of standard policies and procedures for the review and approval of all purchase card transactions prior to payment can result in undetected unauthorized purchases.

NSF management generally concurred with a number of the recommendations in the Management Letter, and the FY 2006 financial statement audit, currently underway, is evaluating NSF's actions in response to the findings and recommendations to determine whether the issues have been resolved.

Constituents Want Expanded Access to NSF Research Results

During this semiannual period we issued the last in a series of three audit reports examining NSF's policies and practices for reporting on and disseminating the results of the research it funds. This final audit report assessed the interest among NSF's constituents, including researchers, educators, librarians, minorities, women, and journalists, for NSF making the results of the research it funds available on its website. Representatives of 7 organizations representing NSF constituents, as well as 18 NSF program managers, overwhelmingly supported NSF providing more research results on its website. Furthermore, they stated that the best formats for conveying the information were brief summaries of the research results and citations of the journal publications resulting from the research. Based on the membership of the organizations we interviewed, NSF could reach tens of thousands of interested users by placing more results information on its website.

A key factor in furthering science and ensuring accountability for federal research dollars is communicating the results of the scientific research. Communicating research results may advance knowledge, stimulate new research ideas, and interest future scientists, engineers, and educators. The websites of federal agencies funding basic research can play an important role in disseminating research results to scientists as well as other interested constituents, such as educators or journalist. However, NSF has historically only provided the public with information on proposed research, not results. While NSF has recently begun planning to provide citations of journal articles resulting from NSF-funded research on its website, the audit found that NSF constituents were interested in even more information about research results.

In light of government-wide efforts to reform and standardize how research results are reported by scientists to the federal agencies funding them, the audit report recommended that NSF advocate for including brief summaries of research results in the grant reporting template currently being developed. NSF could then make the summaries available on its website. Additionally, the report recommended that NSF consider providing links to the actual

abstracts of journal articles resulting from NSF research. NSF agreed that more research results should be made available and is examining the feasibility of providing links to abstracts of journal articles on its website. The agency is still considering the recommendation to advocate for including brief summaries in the new standardized, government-wide reporting format.

Oversight of Awardee Indirect Costs Needs Improvement

The OIG completed two audits during this semiannual period that assess issues related to NSF's oversight of indirect costs submitted by grantees. Indirect costs, sometimes referred to as overhead, are expenses that pertain to common administrative support activities, such as operation and maintenance of buildings, payroll and accounting functions, and information technology services. Unlike direct costs, which are charged in their entirety to awards, indirect costs are allocated based on an indirect cost rate that the awardee institution negotiates with the federal government. Approximately 20 percent, or \$1.1 billion of the \$5.6 billion of costs budgeted on NSF grants in FY 2006 are for indirect costs. Because of the significant dollar amount of indirect cost charges to NSF grants, it is important that NSF ensures that all awardee institutions correctly apply the federally negotiated rate, and NSF properly negotiates the indirect cost rates for the approximately 90 organizations for which it is responsible. Proper management of awardee indirect costs helps ensure that limited NSF funds achieve the maximum amount of program results.

NSF Policy for University Indirect Cost Recovery Is Inconsistent with Federal Grant Requirements

Contrary to federal grant requirements, NSF allows universities and colleges to recover indirect costs utilizing rates negotiated subsequent to making the initial grant award. Federal policy requires universities to use the rate or rates in effect at the time of award throughout the life of each competitive award in order to preserve the level of funds spent on research as opposed to administrative and facility support. Our review of 23 of NSF's top 100 funded universities found the policies at 14 universities followed federal requirements. However, University of California policy allowed its nine campuses to use newly negotiated rates, as permitted by NSF policy, and three of the campuses actually used the NSF option. As a result, these campuses inappropriately shifted \$1.9 million from direct research to administrative and facility support over a nine-year period. Such reductions in funds supporting research could jeopardize the successful achievement of NSF research objectives.

The federal requirement allows funding agencies to know with certainty the total funds available for research throughout the award. Inconsistency between NSF's policy and federal requirements has created confusion in the awardee community regarding the appropriate indirect cost rate to charge

on federal awards. NSF agreed with the audit recommendation to revise its Grant Policy Manual provisions for recovering indirect grant costs to make them consistent with the federal requirement by the end of this year.

More Comprehensive Process for Reviewing Indirect Cost Rates Is Recommended

An audit of NSF's procedures for reviewing indirect cost rate proposals indicates that NSF could improve its process to identify overstated, incomplete or missing proposals. The audit revisited recent OIG audits of indirect cost proposals for the period 1995 through 2002 submitted by 11 non-profit institutions, analyzed the results, and found four problems common to most of the proposals: overstated indirect costs, understated direct cost bases, inadequate support for costs included in pools or bases, and untimely or missing submission of indirect cost proposals. These problems occurred because the institutions lacked an understanding of the federal requirements for calculating indirect cost rates, were missing or had inadequate policies to prepare indirect cost proposals, and had deficient accounting and/or time and effort reporting systems. Without a reliable and comprehensive proposal review process, NSF risks negotiating inflated indirect cost rates resulting in overpayment of indirect costs.

The audit also compared NSF's proposal review process to guidance in Office of Management and Budget (OMB) Circulars and four federal agencies' policies for reviewing indirect cost proposals and found that NSF can do more to detect and prevent the recurring problems we found in our audits. For example, NSF did not: 1) have a proposal review guide for its staff to ensure thorough and consistent examination of proposals; 2) obtain current information to assess the quality of awardees' financial management systems used to prepare indirect cost proposals; and 3) consistently maintain information about prior indirect cost rate negotiations to facilitate trend analysis, identify significant changes in indirect cost proposals, and help determine the accuracy of the current proposals. Further, we found that institutions often submitted late proposals or did not submit a proposal at all, preventing NSF from determining if the rates used to charge indirect costs to federal awards were current and accurate. Because NSF lacked a comprehensive process for proposal review, it increased the risk of not detecting inflated indirect cost proposals.

Accordingly, we recommended that the Director of the Division of Institution and Award Support develop a risk-based program to review indirect cost proposals. The program should include updated assessments of awardees' financial management systems, maintenance of historical files on awardees' prior rate negotiations, guidance for reviewers to use in processing submitted proposals, and more effective tracking of proposal receipt and follow-up for late proposals. In response to our findings, NSF agreed to continue to improve its program for review and negotiation of indirect costs, and is developing a corrective action plan to address the report recommendations.

Contract Audits

Audits of Polar Support Contractors

At NSF's request, the OIG contracted with the Defense Contract Audit Agency (DCAA), to complete a series of audits of the financial reports and practices of Raytheon Polar Services Company (RPSC), the Antarctic support contractor, and VECO Polar Resources, the Arctic support contractor. Combined, NSF spends approximately \$130 million annually on these two contracts to provide logistical and operational support for scientific research performed in the polar regions. The OIG and DCAA issued five reports during this semiannual period in support of this request.

Questioned Costs Rise to \$55.5 Million in Audits of Raytheon Polar Services Company as Additional Compliance and Control Problems Are Found

RPSC provides science, operations and maintenance support to sustain year round research in NSF's United States Antarctic Program (USAP). During this semiannual period, DCAA completed four audits of RPSC in which it questioned \$22.1 million of RPSC's fiscal year (FY) 2003-2004 final payment claim; placed RPSC on notice that it must immediately file a federally mandated cost accounting practices statement or face administrative penalties; and identified internal control failings in both the Colorado and New Zealand offices that, if not corrected, will require costly and extensive oversight by NSF to ensure RPSC is adhering to federal regulations and the NSF contract. In an earlier audit, \$33.4 million, or 9.2 percent of the \$363 million costs claimed by RPSC for the three-year period ended December 31, 2002 were questioned by the auditors².

DCAA questioned \$22.1 million or 7.3% of the \$300.7 million that RPSC claimed for payment for FYs 2003 and 2004. Of these costs \$18.1 million were questioned because RPSC erroneously claimed indirect costs as direct costs. After the auditors properly reclassified the indirect costs, they questioned an additional \$2.5 million of indirect costs that exceeded the limitations specified in the contract and \$1.5 million of unallowable costs for alcohol, entertainment, souvenirs, and fringe benefits. The additional \$22.1 million of questioned costs, combined with the previously reported \$33.4 million that was questioned for the same reasons during the audit of costs claimed for FY 2000 to 2002, brings the total questioned costs for the five-year period ending December 31, 2004 to \$55.5 million. Of the questioned costs, \$39.2 million, or 70 per-



A view of Palmer Station, the smallest of the three U.S. Antarctic Program research stations.

² September 2005 Semiannual Report, p. 15.

cent, were indirect costs, which RPSC improperly reclassified and claimed as “other direct costs” because they exceeded the contract ceilings.

By claiming indirect costs as direct costs, RPSC violated its federal Cost Accounting Standards Board (CASB) disclosure statement. In response, on August 22, 2006, the Department of Defense (DoD), which is responsible for overseeing RPSC’s compliance with its CASB disclosure statement on all federal contracts, issued a determination of noncompliance to RPSC’s parent, Raytheon Technical Services Company (RTSC), for the three-year period ending December 31, 2002. NSF is now pursuing administrative processes to resolve the \$39.2 million of improperly billed indirect costs from RPSC.

In an audit of RPSC’s cost accounting disclosure statement, the auditors found that contrary to federal requirements and its NSF contract, Raytheon removed RPSC from its own CASB disclosure statement effective January 1, 2005, leaving RPSC to perform without any disclosure of its cost accounting practices. When the auditors notified Raytheon of this violation, it submitted a CASB disclosure statement for RPSC, retroactive to January 1, 2005. Under this new disclosure statement, RPSC proposed to classify and bill some of its direct and indirect costs consistent with practices that were previously unauthorized under the prior disclosure statement. Accordingly, DoD requested that RPSC provide an analysis of the additional costs that are likely to result under this disclosure statement as a basis to decide whether to approve the recently proposed cost accounting practices.

Two other audits issued during this period identified significant internal control weaknesses in RPSC’s Colorado and New Zealand financial management operations that contributed to the conditions that caused auditors to question \$55 million of claimed costs and could adversely affect future RPSC billings to NSF. Specifically, RPSC Colorado does not adequately train its employees to accurately identify, classify, and monitor restricted funds and unallowable costs; adequately segregate the duties of billing preparers, reviewers, and certifiers to prevent or identify billing errors; or have written policies and procedures to reconcile expenditure reports to accounting records and monitor its subcontractors’ accounting and billing systems.

Auditors found similar deficiencies in the internal controls governing RPSC New Zealand’s accounting and labor distribution systems. Expressly unallowable costs for gifts, entertainment, and alcohol, amounting to \$1.37 million were charged to the NSF contract and \$300,000 of labor costs annually were improperly classified as “miscellaneous other direct costs,” resulting in an understatement of total direct labor costs incurred by RPSC and reported to NSF. In addition, payroll accounting duties were not properly segregated, increasing the risk that undetected billing errors could occur; and poor controls existed over employee timesheet certification, review and approval. These deficiencies could result in inaccurate charges to NSF’s contract.

The audit reports recommended that NSF continue to coordinate with DCAA and DoD to have RPSC correct its cost accounting practices and preclude charges exceeding its indirect cost ceilings. In addition, the reports recommended NSF recover the questioned costs plus interest and ensure that RPSC establishes adequate policies and procedures, including an internal compliance oversight program and an employee training program. The reports also recommended that NSF ensure RPSC maintains adequate documentation; conducts periodic reviews of its billing process; informs personnel of the NSF contract requirements; and monitors its subcontractors accounting, timekeeping and billing systems. NSF is reviewing the recommendations and is working with RPSC and DoD to address the findings and recommendations, including the \$55 million in questioned costs. In the next semiannual period, DCAA will begin a review of the \$122 million of costs claimed by RPSC for FY 2005, and complete its audit of the new proposed RPSC CASB disclosure statement.

Audit of Major Arctic Contractor Identifies \$2.6 Million of Inadequately Supported Labor Costs

Similar to RPSC, VECO Polar Resources (VPR) provides logistics support services to NSF's Arctic research program. DCAA audited \$21.9 million of costs claimed by VPR for the three-year period ending March 31, 2003 and found that timesheets used to capture the daily hours worked by the employees were not routinely signed by employees and supervisors to ensure their completeness and accuracy. As a result, the auditors were unable to provide an opinion on the accuracy of the \$2.6 million in labor costs charged to the NSF contract. In addition, DCAA questioned \$17,200 of unallowable bonus costs awarded to VPR employees because VPR did not have an established bonus plan or a prior written agreement as required by federal regulations to ensure that bonuses paid were fair and equitable.

The auditors recommended that NSF direct VPR to develop and implement adequate timekeeping policies that ensure compliance with federal and NSF requirements for charging labor and bonus costs to the NSF contract. VPR responded that it had revised its timekeeping policies and procedures but did not agree that the bonus costs should be questioned. NSF is reviewing the audit recommendations. DCAA will complete its audit of VPR's CASB disclosure statement for adequacy and compliance with government contracting regulations in the next semiannual period.

Grants Audits

Awardees Lack Understanding and Policies to Manage NSF Funds

In audits issued during this semiannual period of three universities, two centers, and two non-profit organizations, we estimated that \$9.2 million of labor

costs charged to NSF awards may not have benefited those awards, questioned \$2.9 million of cost sharing and \$750,000 of NSF-funded costs, and found that a grantee's proposed indirect cost rate was 13 percentage points higher than its actual rate. These problems occurred because grantees had inadequate accounting controls, time and effort systems, policies and procedures, or understanding of federal and NSF requirements. To follow up on our findings and recommendations we have forwarded the audit reports to NSF's Division of Institution and Award Support to resolve any questioned costs and ensure corrective action.

Subawardee Oversight at Two Science and Technology Centers Needs Improvement

Financial audits of the Center for the Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA) at the University of Arizona and the Center for Behavioral Neuroscience (CBN) at Georgia State University both identified a significant weakness in subawardee oversight. Neither Center monitored their subawardees to ensure that claimed costs were accurate, allowable, allocable, and properly documented per federal and NSF regulations. As a result, we questioned \$335,187 of subaward cost share expenditures and \$19,751 of NSF-funded subaward costs for which neither the SAHRA Center nor its subawardee could provide adequate supporting documentation. Similarly, for the CBN, we questioned \$271,376 of subaward cost share expenditures and \$132,835 of subaward costs. In addition, our audit identified other compliance and internal control weaknesses contributing to an additional \$32,986 in questioned costs at the SAHRA Center and \$55,573 at the CBN.

We recommended that both the University of Arizona and Georgia State University develop and implement written policies and procedures to assess and document each subawardee's risk of claiming non-allocable or non-allowable costs, including cost sharing expenditures. The Universities should perform their reviews of each subawardee's invoices and cost-sharing expenditures consistent with the subawardee's risk assessment to ensure amounts claimed are allowable, allocable, and properly documented. We also made several recommendations pertaining to the other compliance and internal control weaknesses identified in the audit. Generally, the University of Arizona agreed with the audit recommendations and indicated that it has initiated corrective actions. Georgia State University agreed to consider but did not commit to implementing, our recommendation that it establish a risk-based subawardee monitoring program. The University partially agreed with the remaining recommendations and submitted additional information to support the costs.

Systemic Weaknesses Found in University's Effort Reporting System

An OIG audit found that weaknesses in the University of Pennsylvania (UPENN) effort reporting system prevented it from adequately supporting a significant portion of labor charged to NSF grants. The audit disclosed two

major systemic internal control deficiencies that affected UPENN's processes for accounting and charging labor effort costs to NSF awards: 1) UPENN's business managers were certifying labor effort reports, though they were not in a position to know whether work was performed, and 2) effort reports were not certified in a timely manner as specified by UPENN policy. As a result, we estimated that UPENN could not demonstrate that at least \$9.2 million or 37 percent of the \$24.9 million of labor costs charged to NSF in fiscal years 2002 through 2004 actually benefited NSF awards as opposed to other federal or university activities. These weaknesses raise concerns about the reasonableness of the labor effort charges on UPENN's other \$525 million of federal awards.

These problems occurred because UPENN did not have specific procedures to help business managers understand the actions necessary to verify work was performed as shown on effort reports, and Department Chairs were not held accountable for ensuring the timely completion of effort reports. In addition, UPENN did not conduct a federally required independent evaluation of its payroll distribution system to ensure the system's effectiveness in distributing salary and wage costs to all activities, including individual sponsored projects. In response to our audit, UPENN revised its effort reporting policies and procedures to require business managers to obtain written after-the-fact documentation from Principal Investigators (PIs), clarified its policy regarding the documentation needed to support salaries, and assigned Department Chairs responsibility for the timely completion of effort reports prepared by their faculty and staff. UPENN also agreed to conduct an independent review in FY 2007 to determine whether its new electronic effort reporting system and revised policies and procedures are working as intended. We recommended that NSF follow-up with UPENN to determine whether the review meets federal requirements.

Consortium Is Unable to Track Costs on NSF Grants

The Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) did not have a financial management system that provided a complete accounting of its three NSF awards amounting to \$2.9 million, according to a recent OIG audit report. Specifically, CUAHSI could not identify funds authorized, spent, or remaining by individual award and did not have the capability to compare budgeted to actual costs. As a result, CUAHSI overspent one award and overcharged NSF for another. It also caused NSF to delay funding a hydrologic project and restrict the consortium's payments, thereby increasing NSF's administrative burden. Furthermore, CUAHSI could not readily locate source documents and claimed questionable costs of \$69,978, approximately one-half of which were related to the director's housing allowance. These issues occurred because CUAHSI lacked a qualified accountant and did not ensure that its personnel were knowledgeable about federal rules for allowable costs and accounting controls. In its response, CUAHSI agreed to reimburse almost half of the questioned costs, as well as implement all of our recommendations to improve its accounting over NSF funds.

Museum's Indirect Cost Rate is Overstated

Auditors found that the process used by the North Carolina Museum of Life and Science to prepare its fiscal year 2003 indirect cost proposal was not in compliance with federal grant requirements. The Museum did not have adequate written procedures to prepare its indirect cost rate or to ensure that only allowable costs were included in its calculation. As a result, we calculated that the Museum's FY 2003 indirect rate should have been 30 percent as opposed to 43 percent. If the recommended 30 percent rate had been applied to one of the three NSF grants audited, NSF could have reduced its indirect cost funding by \$139,175 for the subject award and realized significant savings that could have been redirected. The audit also identified four other internal control issues: cost sharing reporting deficiencies, time keeping system weaknesses, improper allocation of compensated absences, and improper accounting for fixed assets. In its written response, the Museum accepted most of the monetary audit adjustments and agreed with all of the recommendations to improve internal controls over NSF funds.

University Control Deficiencies Result in Poor Grant Oversight and Award Overcharges

An audit of \$3 million awarded to New Mexico Highlands University (NMHU) found that the University had systemic weaknesses affecting the oversight of its NSF grant funds. In particular, NMHU's internal controls were not adequate to properly administer, account for, and monitor its NSF awards in compliance with NSF and federal grant requirements in the areas of cost sharing, subawardee monitoring, expenditure reporting, and conflict of interest statements.

NMHU could not readily identify in its accounting records or provide adequate documentation to support \$1.9 million (90 percent) of the \$2.1 million in cost sharing it claimed to NSF. Likewise, NMHU lacked adequate policies and procedures to monitor and ensure the allowability of \$2.2 million of subawardee costs, although subaward costs represented 73 percent of the total claimed costs. Subsequent on-site testing at two NMHU subawardees allowed the auditors to determine that all of the subawardee costs charged to the NSF grant except \$81,787 were allowable. However, without better oversight practices NMHU cannot ensure that subaward costs on other or future NSF awards are allowable.

Additionally, NMHU inaccurately reported its award costs to NSF because it did not reconcile claimed costs with its official books of record. This internal control deficiency resulted in NMHU reimbursing NSF \$46,458 for overcharges. The auditors also questioned \$60,000 for materials and supplies purchased at the very end of the grant period that did not appear to have benefited the NSF award; \$12,720 of travel, material and supplies, and consultant costs which lacked supporting documentation; \$6,276 of salary costs

charged to an NSF award for a professor who did not work on the grant; and \$4,689 of scholarship costs paid for students who were not eligible to participate in the NSF program. Finally, contrary to its conflict of interest policy, NMHU could not provide conflict of interest disclosure statements for either the PIs or Co-PIs for any of its NSF awards.

The report recommended that NMHU establish a system to identify, account for, monitor, report, and document cost sharing and establish a system, including policies and procedures, to monitor the allowability of subaward costs claimed to NSF. The report also recommended that NMHU develop and implement policies and procedures that enable it to report actual costs incurred for NSF grants to NSF as recorded in its official books and records and maintain conflict of interest disclosure forms for all PIs and Co-PIs. NMHU generally agreed with the audit recommendations and indicated that it has initiated corrective actions.

University Receives Qualified Opinion

A financial audit of a \$9.8 million award to the University of Hawaii (UH) resulted in a qualified opinion because management was unable to provide its actual labor cost sharing contributions. UH used budgeted percentages to charge labor time and effort cost sharing without making any adjustments to reflect changes in actual workload over the five-year period of the award. Therefore, the accuracy of \$1.7 million or 39 percent of the total \$4.3 million of labor cost sharing charged over the five-year period of the award, could not be verified. In addition, auditors questioned \$265,000 of subcontractor costs and \$305,000 of subcontractor cost sharing, which was not documented.

Accordingly, the auditors recommended that UH revise its procedures to claim actual rather than budgeted amounts for labor cost sharing. The auditors also recommended that UH clarify and update its policies and procedures for accounting for cost sharing and ensure that adequate documentation for all subcontract costs and subcontractor cost sharing is maintained. UH generally concurred with the findings and recommendations and plans to amend its labor cost sharing policies and procedures.

Audit Resolution

University Works to Improve Accountability over Grant Funds

A prior audit of \$10 million awarded on five NSF grants to Howard University found that the institution lacked a system of internal controls to provide reasonable assurance that grant funds were being used for the purpose for

which they were awarded³. Significant weaknesses were identified in the University's internal controls over cost sharing, funds passed-through to sub-awardees, faculty salaries, and student stipends. The audit determined that the University could not support \$12.3 million of claimed cost sharing due to the lack of documentation and the commingling of funds. Howard University also lacked comprehensive subaward agreements legally obligating its sub-recipients to provide \$5.4 million of cost sharing and to restrict \$2.3 million of funding to participant support and/or trainee costs.

Howard University has undertaken concerted efforts to implement the audit report recommendations. It has issued a new operations manual establishing policies and procedures for managing and monitoring federal grants and has initiated a major reorganization of the University's research enterprise. To oversee research, the Board of Trustees has approved a new organization that will be managed by a cabinet-level Vice-President for Research and Compliance. It also engaged a consultant to assist the University in establishing an appropriate structure for managing the research enterprise, and to help establish effective grant administration controls.

NSF's Division of Institution and Award Support (DIAS) is working with Howard University to develop an appropriate corrective action plan for implementing the audit recommendations. Furthermore, to address the University's systemic internal control weaknesses that affect all federal grant funds, DIAS is coordinating its audit resolution efforts with the cognizant audit agency, the Department of Education, and the largest federal sponsor of research funding, the Department of Health and Human Services. NSF has provided both of these federal agencies with copies of the audit report and the University's proposed corrective action plan. Furthermore, it has proposed a joint site visit with these federal agencies to validate the progress made toward implementing the corrective action plan.

NSF Secures a Fundraising Strategy from a Foreign Awardee

An audit of NSF awards to the Inter-American Institute for Global Change Research in Brazil, disclosed that NSF, on behalf of the United States, was funding a disproportionate share of the Institute's total research costs, and that the Institute had not properly managed its NSF-funded subawards, valued at over \$10 million⁴. NSF provided technical assistance and conducted two site visits to Institute offices to ensure implementation of the audit report recommendations. In addition, NSF worked closely with other member countries to hire a new Executive Director and require the development of a fundraising plan to ensure the Institute's continued financial viability. NSF will also monitor the Institute's progress in implementing its fundraising plan. These combined corrective actions should position the Institute to better manage its most recent \$10.4 million NSF award.

³March 2006 Semiannual, Report, pp. 17-18.

⁴September 2004 Semiannual Report, pp. 17-18.

OIG Audit Results in Recovery of \$639,996

NSF sustained \$639,996 of the costs questioned during an audit of San Francisco Unified School District (SFUSD) completed in March 2006⁵. The district lacked the required employee certifications and personnel activity reports to support claimed salary and fringe benefit costs, and an adequate system to properly identify and account for the cost sharing contributions it reported to NSF. SFUSD also did not conduct timely reconciliations of the costs it claimed to NSF with its accounting records to ensure the validity of those costs. Of the \$9.2 million SFUSD claimed on its NSF award, auditors questioned \$712,620, including \$69,315 of salaries and associated fringe benefit costs that should have been charged to SFUSD's general fund, \$427,844 of costs that were not recorded in SFUSD's accounting records, and \$215,445 for overcharges of indirect costs.

In response to the audit, SFUSD indicated that it has developed policies to assure the proper accounting for cost sharing and indirect costs, enhanced its procedures for reconciling costs reported to NSF with its accounting records, and implemented time certification and labor effort reporting procedures. SFUSD also reported that it will train staff and hold quarterly meetings to ensure correct charges are made to NSF awards. NSF will conduct a follow-up review to ensure that SFUSD has fully implemented its corrective action plan prior to awarding it any new funding.

School District Charged \$100,000 for Failure to Properly Document Cost Share Expenses

As a result of an OIG audit, NSF imposed a \$100,000 disallowance on Fresno Unified School District (FUSD) for failure to properly document cost shared expenditures.⁶ The school district had lacked adequate records to support meeting its \$17.5 million cost sharing commitment for the period ending August 31, 2000. As a result of this material weakness, the auditors questioned \$6.8 million of NSF's share of total project costs. The audit also questioned \$220,000 of indirect costs because FUSD did not accurately calculate or consistently charge its indirect cost rate.

In addition to the disallowance, NSF also agreed to advise FUSD in writing of the need to take corrective actions including: implementing proper systems to identify, track, and report cost sharing and participant support costs; en-

⁵ March 2006 Semiannual Report, p. 16.

⁶ March 2005 Semiannual Report, p. 19.

sure that employees maintain proper documentation to support salary and wage charges in compliance with federal and NSF requirements; and providing training to appropriate personnel to properly calculate indirect costs. Also, NSF will conduct a preaward review, to ensure that the issues identified in the audit have been corrected before making any future awards to FUSD.

School District Corrects Internal Control Deficiencies

In the September 2005 Semiannual we reported on our audit of the School District of Pittsburgh (SDP).⁷ SDP did not have a system to ensure accurate and timely completion of labor effort certifications and could not adequately account for cost sharing. Both of these material weaknesses were also reported in a July 1997 OIG audit of SDP. We questioned \$900,000, or 21 percent, of salaries and wages and related fringe benefit and indirect costs claimed under the award. We also questioned \$2.1 of the \$4.6 million of cost sharing claimed and identified another \$800,000 of cost sharing as “at risk” of not being met, primarily because SDP could not verify that the costs were incurred for the benefit of the NSF awards.

NSF agreed with all of our compliance and internal control recommendations to correct the repeated findings. Subsequently, NSF verified that SDP had revised its internal policies and procedures to rectify these deficiencies. During audit resolution, NSF also sustained \$7,696 in questioned salary and fringe and participant support costs and accepted alternative documentation for the remaining questioned costs.

Audit Findings Prompt Improvements at College

During a 2004 audit of Northwest Indian College (NWIC), the auditors questioned all of the \$1.1 million of direct costs claimed and the entire \$35,000 of cost sharing required on two expired awards.⁸ They also found that NWIC lacked an adequate financial management system for recording the receipt and expenditure of funds for NSF projects and did not have source documentation to support the costs charged to NSF projects.

As a result of the audit, NSF visited NWIC to provide award management assistance and oversight. NSF found that NWIC had hired an accounting firm to perform required federal audits for FYs 2002 to 2004 and help NWIC identify and organize the documentation to support its claimed NSF costs. NSF did not sustain any of the questioned costs because the agency’s program officers confirmed that NWIC satisfactorily completed the work performed under the awards. NSF agreed to further review NWIC if it is considered for future funding.

⁷ September 2005 Semiannual Report, p. 16.

⁸ September 2004 Semiannual Report, pp. 18-19.

Work In Progress

Labor Effort at Universities

As reported in our September 2005 Semiannual Report,⁹ OIG initiated a review to assess the adequacy of accounting and reporting processes for labor costs at NSF's top-funded universities. The review was initiated as a result of the growing number of disputes involving overcharges of staff time amounting to millions of dollars at several major universities as evidenced by legal actions brought by various federal agencies and reported in the media. In addition, approximately one third of all NSF award funds provided to universities are spent for salaries and wages. As part of the review, we issued an audit report on the labor effort practices at the University of Pennsylvania¹⁰ and are completing an audit at the California Institute of Technology. We anticipate awarding contracts to independent public accounting firms by the end of October 2006 to audit the labor effort practices at another five universities.

National Single Audit Sampling Project

In November 2004 the Inspector General community undertook a government-wide initiative to assess the quality of audits performed under OMB Circular A-133. Our office actively participates on both the project's advisory board and its management staff, because of the importance of A-133 audit quality to NSF's post-award administration efforts, particularly in monitoring the approximately \$5 billion of awards it funds annually. In this semiannual period, federal and state auditors along with public accounting firms under contract completed their quality control reviews of 208 A-133 audits, which were statistically selected from a universe of over 30,000 audits. When the project's management staff completes its analysis of the review results, its assessment of quality will be used to improve audit guidance to the public accounting firms performing A-133 audits. We anticipate a report will be issued during the next semiannual period.

Review of Pension and Medical Benefits at NSF Federally Funded Research and Development Centers (FFRDCs)

Our office initiated an audit to determine the reasonableness of pension and medical benefits provided at five FFRDCs, which manage some of NSF largest facilities and programs. We hired a consulting firm to assist in identi-

⁹ September 2005 Semiannual Report, p. 20.

¹⁰ See P. 21 of this Semiannual Report.

ifying the value of the pension and medical benefits provided to retirees and current employees. The consultant compared the benefits provided to employees at these FFRDCs with those offered at other similar institutions and evaluated the accuracy of the FFRDCs' \$85 million liability for retiree medical benefits. We are currently reviewing the consultant's draft report.

A-133 Audit Reports

OMB Circular A-133 provides audit requirements for state and local governments, colleges and universities, and non-profit organizations receiving federal awards. Under this Circular, covered entities that expend \$500,000 or more a year in federal awards are required to have an annual organization-wide audit that includes the entity's financial statements and compliance with federal award requirements. Non-federal auditors, such as public accounting firms and state auditors, conduct these audits. The OIG reviews these reports for findings and questioned costs related to NSF awards, and to ensure that the reports comply with the requirements of OMB Circular A-133.

During this reporting period, the A-133 audits of NSF grantees found compliance deficiencies and internal control weaknesses resulting in \$2.5 million of questioned costs. The findings contained in A-133 reports help identify potential risks to NSF awards and are useful to both the agency and OIG in planning site visits, post-award monitoring, and future audits. Because of the importance of A-133s in monitoring grantees, the OIG returns reports that are judged inadequate to the firms that prepared them.

Findings Related to NSF Awards

In this reporting period, we reviewed 43 audit reports, covering NSF expenditures of over one billion dollars from fiscal year 2003 through 2005. These reports revealed 67 instances where grantees failed to comply with federal requirements and 14 instances where weaknesses in grantees' internal controls could lead to future violations. The auditors questioned a total of \$2.5 million of the costs claimed by recipients of NSF awards. As detailed in the following table, the most common violations were related to financial and award management and salary and wage requirements.

Findings Related to NSF Awards by Category

Category of Finding	Type of Finding			
	Compliance	Internal Controls	Monetary	Total
Financial and Award Management	19	6		25
Salary/Wages	7	1	5	13
Procurement System	7	2	2	11
Subawards	8	1		9
Other	6	1		7
Property Management System	2		2	4
Travel	2	1	1	4
Cost-Sharing	2	1	1	4
Indirect Costs	4			4
Equipment	3			3
Consultant Services	2			2
Fringe Benefits	1			1
Materials & Supplies			1	1
Other Direct Costs			1	1
TOTAL	63	13	13	89

We also examined 21 management letters accompanying the A-133 audit reports. Auditors use these letters to report internal control deficiencies that are not significant enough to include in the audit report, but which could become more serious over time if not addressed.