

# Audits & Reviews

Eleven audit reports and reviews were issued during this reporting period. Auditors found that an awardee's proposed budget for a major construction project included \$76 million of unallowable contingency costs, bringing unallowable contingency costs in proposals for three major construction projects to \$226 million. In addition, an audit questioned more than \$120,000 of award costs that were claimed before they were paid. We recommend that NSF, in consultation with the OIG, resolve the recommendations.

We also recommended that NSF develop a procedure to ensure that conflicts of interest at its grantee institutions are managed, reduced, or eliminated.

## ***NSF's Current Policy Does Not Provide Assurance of Adequate Oversight of Financial Conflicts of Interest***

NSF's Conflicts of Interest Policy states that a conflict of interest exists when a financial interest could significantly affect NSF-funded research. It is vital that such conflicts are properly overseen and managed, as poorly managed or hidden conflicts can create the perception of misconduct or that public resources could be misused for private benefit.

Concerned about NSF's oversight of grantee financial conflicts of interest, the then-Ranking Member of the Senate Committee on Finance requested that we conduct an audit of financial conflict of interest at institutions that received NSF grants. We found that grantee institutions had not reported any unmanageable conflicts to NSF during the three-year scope of our audit between April 1, 2007 and March 31, 2010. Under NSF's policy, institutions are only required to report conflicts that they cannot satisfactorily manage. In addition, the requirement for institutions to report an unmanageable conflict is only a reporting standard and does not demand action on NSF's part.

Based on the lack of unmanageable conflicts reported to NSF, we expanded our audit to examine the conflict of interest policies and procedures at nine institutions to determine whether their programs complied with NSF's policy. We identified 17 policy and procedural standards in NSF's policy and found all nine conflicts programs were properly implementing 11 of the required elements. While we determined that some of the six omitted elements were technical in nature, others such as a lack of arrangements to keep NSF's Office of General Counsel informed of unmanageable conflicts, and a lack of adequate enforcement mechanisms and sanctions raised concerns about the adequacy of the institutions' policies to enforce NSF's standards and to ensure that conflicts were properly managed.

## **HIGHLIGHTS**

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Our audit also identified aspects of NSF's existing policy and its oversight of conflicts that raised concerns. Based on its current policy, NSF has limited information on institutions' implementation of their conflicts program or the methods used to manage reported conflicts. Specifically, NSF is not required to review or follow-up with the institutions on reported unmanageable conflicts. In addition, NSF is not required to provide monitoring and oversight of the institution's implementation of their conflicts programs. Finally, institutions are not required to notify NSF when an institution permits research to continue without imposing conditions or restrictions on an identified conflict.

Because its conflicts of interest policy does not require it to oversee or manage grantee institutions' conflicts programs, NSF lacks assurance that the institutions are properly managing, reducing, or eliminating conflicts or that unmanageable conflicts are being reported.

We recommended that NSF develop a procedure to ensure that conflicts at its grantee institutions are managed, reduced, or eliminated. NSF stated that it will develop an appropriate plan to ensure sufficient oversight of unmanageable conflicts and that it is informed of instances where institutions may allow research to continue without the imposition of conditions or restrictions.

### ***Better Documentation Would Enhance Accountability and Transparency of NSF's Priority Goal Progress***

In June 2009, the Office of Management and Budget (OMB) requested that agencies identify and commit to a limited number of priority goals with high value to the public. The purpose of the initiative was to improve the performance and management of federal government agencies. Documenting the results achieved compared to the goals established was intended to improve performance accountability and transparency.

NSF's priority goal is to improve the education and training of an innovative science, technology, engineering, and mathematics (STEM) workforce. It committed NSF to having evaluation and assessment systems in place for at least six major STEM workforce development programs at the graduate or postdoctoral level by the end of FY 2011.

Our audit found that NSF has taken steps through the priority goal process to develop a framework for evaluating and assessing its STEM programs. However, the detail and documentation NSF provided to support accomplishment of milestones to meet its goal was inadequate and did not provide the intended transparency and accountability. Specifically, NSF reported that it had completed 14 milestones for achieving its priority goal, but based on the support provided we could only verify that two were completed as claimed. To attain the transparency and accountability the priority goal process was intended to have, it is essential for NSF to maintain verifiable support for the progress it reports toward its goal.

We recommended that NSF ensure that it develops and maintains competent, contemporaneous evidence to support the attainment of each milestone and goal it reports and enable independent verification of claimed results; and that it periodically review the support for the priority goal results, so any gaps in evidence for claimed results will be identified and addressed in a timely fashion.

NSF concurred with the recommendation.

### ***\$76 Million in Unallowable Contingency Costs in Unauditable Construction Proposal for National Ecological Observatory Network***

Auditors found significant deficiencies in the \$433.7 million cost proposal for construction of the National Ecological Observatory Network (NEON) that render the proposal unacceptable for audit. As a result, NSF does not have assurance that the construction proposal is an acceptable basis for funding. The proposal cannot be audited because the amounts proposed for itemized cost categories such as labor, overhead, equipment, and other items in the proposal do not agree with the amount of the supporting documentation provided for each category. Several other significant deficiencies were also found in the proposal. Further, the proposal includes approximately \$76 million in unallowable contingency costs.

It was recommended that NSF request NEON to resubmit an adequate construction proposal with the unallowable contingencies removed, have the proposal audited, and base NSF funding on the results of the audit. NEON indicated that it would work collaboratively with the auditors to provide further explanation of its cost proposal methodologies and to provide the information sought by the auditors.

"The auditors' findings of unauditable proposals and unallowable contingencies in this award are in addition to those discussed in our September 2010 and March 2011 semiannual reports. In September 2010, we reported that a non-profit organization, Consortium for Ocean Leadership, proposed \$88 million of unallowable contingency costs in a \$386 million budget. In March 2011, we reported \$62 million in unallowable contingencies in a \$298 million unauditable cost proposal to construct the Advanced Technology Solar Telescope. The OIG, DCAA auditors, and NSF management are working together to address unverifiable proposed costs and the inclusion of unallowable contingencies in NSF awardees' large construction proposals.

### ***More than \$120,000 in Questioned Costs on NSF Award***

An audit of the Field Museum of Natural History questioned \$123,663 for claimed costs that had not yet been paid. The NSF funds supporting the NSF grant had expired before the Field Museum paid for the claimed costs. The Museum claimed these costs in advance to prevent losing access to these expiring funds.

In addition, approximately \$94,000 in subaward costs, equipment, and other costs were misclassified in the Museum's accounting system. A misclassification of this nature is particularly significant because, as of September 2010, the

Museum had 39 active awards totaling \$13.4 million. Without proper monitoring of actual to budgeted costs, there is an increased risk that funds may not be spent as intended and that indirect cost charges may not be correct.

Recommendations included that the Field Museum return the \$123,663 in claimed costs and that it implement procedures to prevent future claims for such costs. The Field Museum disagreed with the questioned costs and the recommendations.

### ***Improvements Needed in AUI's Accounting System***

Associated Universities, Inc. (AUI) is the management organization for the NSF's National Radio Astronomy Observatory, including the Atacama Large Millimeter Array which is under construction. An audit found that AUI's accounting system is generally adequate for accumulating and billing costs under government awards. However, several deficiencies were identified in procedures used to calculate and allocate indirect costs to NSF awards. These weaknesses could result in indirect costs being inequitably allocated or overcharged to NSF. Improvements are also needed to ensure the accuracy of the costs reported to NSF for reimbursement. The audit also included a review of AUI's executive compensation, which was found to be reasonable.

The audit made several recommendations including that AUI revise its indirect cost procedures and correct any errors in claimed costs submitted to NSF. AUI agreed with the audit's recommendations and stated that it will implement corrective action to address the deficiencies identified.

### ***University of Alaska-Anchorage Needs to Improve Grants Management***

Our review of federal grant management processes at the University of Alaska – Anchorage found that the University needs to improve management of its \$1.3 million award to broaden participation of underrepresented groups in STEM; revise its labor effort reporting process to ensure reliable confirmation of all salary charges to NSF grants; and improve the property management system to safeguard equipment purchased with NSF funds.

We found that the University inappropriately spent more than \$533,000 of the \$1.3 million of its broadening participation award funds for purposes that did not benefit the grant, and we questioned \$78,093 of unallowable entertainment, food, and other costs charged to this award. In addition, labor effort reports supporting salary charges to NSF grants were improperly certified by individuals who did not have first-hand knowledge of the employee's work activities. This control weakness raises concerns about the reasonableness of the \$4 million of labor costs budgeted on all of the University's NSF grants. This is particularly important as \$1.3 million of the total \$4 million of budgeted NSF grant salaries were for ARRA funded awards. Lastly, UAA did not maintain timely updates to its property records.

The University stated that it is taking steps to improve its grants management processes.

## AUDIT RESOLUTION

### *Recipients of Recovery Act Funds Strengthen Controls over Quarterly Reporting and Grants Management*

The American Recovery and Reinvestment Act (ARRA) requires recipients to submit quarterly reports that include data related to projects funded and the impact of these projects on job creation. It is essential for this data to be accurate in order to meet Recovery Act accountability and transparency goals. Six institutions — University of Alaska-Anchorage, New Jersey Institute of Technology, University of Washington, American Museum of Natural History, California Academy of Sciences, and Institute of Global Environment and Society--strengthened controls over their quarterly reporting in response to our audits. In addition, NSF expanded outreach and technical guidance to ensure that Recovery Act fund recipients understand the Act's reporting requirements.

In addition, two of the institutions strengthened controls over their grants management processes, and two institutions developed new policies to prevent debarred or suspended vendors from obtaining federal awards.

### *University of Nevada-Reno Agrees to Implement Changes to its Effort Reporting System*

In response to our January 2010 audit, the University of Nevada-Reno has taken several steps to strengthen its effort reporting system, including committing to conduct periodic evaluations of its effort reporting processes and developing a grants management training program. NSF also sustained \$14,019 in questioned costs.

### *Carnegie Institution of Washington Agrees to Improve Its Financial Management Processes*

In response to our July 2009 audit, Carnegie Institution of Washington has agreed to take several steps to improve its financial management processes including increasing grant monitoring activities, strengthening controls over journal entry procedures to ensure that cost transfers to NSF awards were appropriate, and revising procedures to properly segregate duties related to its disbursement process. NSF also sustained \$23,218 in questioned costs.

## A-133 Audits

### *Single Audit Findings Go Uncorrected at 31 Awardees*

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 must obtain 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 single audits. The OIG reviews the resulting audit 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.

The 170 audit reports<sup>12</sup> reviewed and referred to NSF's Cost Analysis and Audit Resolution (CAAR) Branch this period covered NSF expenditures of \$7.3 billion during audit years 2007 through 2011, and resulted in 209 findings at 86 NSF awardees. Seven awardees received qualified opinions on their financial statements and 16 awardees received qualified or adverse opinions on their compliance with federal grant requirements, including 7 awardees who received qualified opinions on compliance for programs which included NSF ARRA expenditures. The auditors reported 67 repeat findings, including 18 repeat material weaknesses and 26 repeat significant deficiencies in internal control over compliance with federal requirements. The failure of these 31 awardees (36 percent of awardees with findings) to implement corrective actions could call into question their ability to manage NSF funds. Twenty-one findings identified by the auditors resulted in \$1.3 million in questioned costs to NSF awards, of which \$1.2 million were caused by lack of adequate supporting documentation of the amounts charged to NSF awards. Awardees' lack of internal controls and noncompliance with federal requirements included: untimely and/or incorrect reporting of time and effort; inadequate support for salary/wages, equipment, travel, and indirect costs charged to awards; inadequate monitoring of subrecipients; inability to prepare the financial statements; and late submission of financial and/or progress reports.

We also examined 54 management letters accompanying the A-133 audit reports and found 18 deficiencies that affected NSF. Auditors issue these letters to identify 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. The deficiencies included inadequate tracking, managing, and accounting for NSF costs, and ineffective segregation of duties. These deficiencies affected control processes that are essential to ensuring stewardship of NSF funds and preventing fraud and abuse.

### ***Desk Reviews Find Audit Quality and Timeliness Issues in 35 Percent of Single Audits***

The audit findings in A-133 reports are useful to NSF in planning site visits and other post-award monitoring. Because of the importance of A-133 reports to this oversight process, the OIG reviews all reports for which NSF is the cognizant or oversight agency for audit, and provides guidance to awardees and auditors for the improvement of audit quality in future reports. In addition, OIG returns reports that are deemed inadequate to the awardees to work with the audit firms to take corrective action.

We reviewed 74 audit reports<sup>13</sup> for which NSF was the cognizant or oversight agency for audit, and found that 48 fully met federal reporting requirements.

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<sup>12</sup> March 2011 Semiannual Report, p.26.

<sup>13</sup> March 2011 Semiannual Report, pp.28-29.

Twenty-six reports (35 percent), including 3 reports with ARRA expenditures, contained audit quality and timeliness issues. The quality issues we identified included 11 reports in which the Schedule of Expenditures of Federal Awards did not provide sufficient information to allow for identification of awards received from non-federal “pass-through” entities or did not adequately describe the significant accounting policies used to prepare the schedule. Of the 18 reports which included audit findings, 8 reports (44 percent) failed to adequately present the required elements of the finding to assist auditee management in correcting the reported deficiency, and 8 reports failed to adequately present the required elements of management’s plan to correct the deficiencies reported. In addition, 5 reports were submitted after the due date required by OMB Circular A-133. Finally, 4 of the reports repeated errors which we had identified to the awardees and auditors during reviews of prior years’ reports.

We contacted the auditors and awardees, as appropriate, for explanations of each of the potential errors. In most cases, the auditors and awardees either provided adequate explanations and/or additional information to demonstrate compliance with federal reporting requirements, or the error did not materially affect the results of the audit. However, we rejected two reports due to substantial non-compliance with federal reporting requirements, and instructed the auditors to revise and resubmit a 3rd report which contained technical deficiencies. We issued a letter to each auditor and awardee informing them of the results of our review and the specific issues on which to work during future audits to improve the quality and reliability of the report.

### ***Two OIG Quality Control Reviews Find Significant Audit Deficiencies In Single Audits by Public Accounting Firms***

Quality Control Reviews consist of on-site reviews of auditor documentation in support of Single Audits. The 2007 report issued by the President’s Council on Integrity and Efficiency, which we reported previously<sup>14</sup>, demonstrated that quality control reviews are an important tool for determining whether Single Audits met government auditing and reporting requirements, and for helping to improve future audit quality.

During this period, we issued reports of our quality control reviews of two Single Audits of NSF awardees. In both cases we found significant audit quality deficiencies in the audits and instructed the auditors to conduct additional work. Further, due to the serious nature of the deficiencies we referred both audit firms to the Professional Ethics Division of the American Institute of Certified Public Accountants.

The audit quality deficiencies in the single audit performed at Virginia Military Institute Research Laboratories (VMIRL) resulted in failure to identify a material noncompliance with Recovery Act reporting requirements. VMIRL expended nearly \$335,000 on an NSF ARRA award. In the single audit at Drilling,

<sup>14</sup> September 2010 Semiannual Report, p.14.

Observation and Sampling of the Earth's Continental Crust (DOSECC), audit quality deficiencies resulted in the failure to identify a misstatement material to the Schedule of Expenditures of Federal Awards. DOSECC had expenditures of more than \$560,000 in NSF direct funding.

Our follow-up review of the VMIRL audit found that it met applicable Federal requirements. The auditors are currently conducting additional testing at DO-SECC; we plan to conduct a follow-up review during the next semiannual period.