

Chapter 3: Appendices

Appendix 1: Summary of Financial Statement Audit and Management Assurances

Table 1. Summary of Financial Statement Audit

Audit Opinion	<i>Unqualified</i>				
Restatement	<i>No</i>				
Material Weakness	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Total Material Weaknesses	0	-	-	-	0

Table 2. Summary of Management Assurances

Effectiveness of Internal Control over Financial Reporting (FMFIA § 2)					
Statement of Assurance	Unqualified				
	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Total Material Weaknesses	0	-	-	-	0
Effectiveness of Internal Control over Operations (FMFIA § 2)					
Statement of Assurance	Unqualified				
	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Total Material Weaknesses	0	-	-	-	0
Conformance with Financial Management System Requirements (FMFIA § 4)					
Statement of Assurance	Systems conform to financial management system requirements				
	Beginning Balance	New	Resolved	Consolidated	Ending Balance
Total Non-Conformances	0	-	-	-	0
Compliance with Federal Financial Management Improvement Act (FFMIA)					
Overall Substantial Compliance	Agency		Auditor		
	Yes		Yes		
1. System Requirements	Yes				
2. Accounting Standards	Yes				
3. U.S. Standard General Ledger at Transaction level	Yes				

Improper Payments Information Act Reporting

OMB has renewed NSF's relief from annual Improper Payments Information Act reporting to a 3-year cycle period starting in FY 2010, due to the agency's low improper payments. For a discussion of NSF's efforts in monitoring improper payments, see the Management's Discussion and Analysis, page I-19.



National Science Foundation • 4201 Wilson Boulevard • Arlington, Virginia 22230
Office of the Inspector General

October 15, 2010

MEMORANDUM

To: Dr. Ray M. Bowen
Chair, National Science Board

Dr. Cora B. Marrett
Acting Director, National Science Foundation

From: Allison Lerner *Allison Lerner*
Inspector General, National Science Foundation

Subject: Management Challenges for NSF in FY 2011

In accordance with the Reports Consolidation Act of 2000, I am submitting our annual statement summarizing what the Office of Inspector General 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 and investigative work, general knowledge of the agency's operations and evaluative reports of others, including the Government Accountability Office and NSF's various advisory committees, contractors, and staff.

We have focused on six issue areas that reflect fundamental program risk and are likely to require management's attention for years to come. They include:

- Ensuring Proper Stewardship of ARRA funds
- Improving Grant Administration
- Strengthening Contract Administration
- Becoming a Model Agency for Human Capital Management
- Encouraging Ethical Conduct of Research
- Effectively Managing Large Facilities

Additionally, we identified two emerging challenges, implementing the Open Government Directive and planning for the next NSF headquarters, that warrant close attention and monitoring.

If you have any questions, or need additional information, please call me at 703-292-7100.

CHALLENGE: Ensuring Proper Stewardship of ARRA Funds

Overview: The American Recovery and Reinvestment Act (ARRA), was enacted by Congress to create and save jobs through investments for long-term economic growth. ARRA provided \$3 billion for the National Science Foundation (NSF) in February 2009 and NSF staff worked expeditiously to obligate \$2.5 billion for 4,599 research grants within a matter of months. NSF recipients have conscientiously performed their reporting responsibilities and their ARRA reporting rate has been nearly 100 percent in each quarter. However, as of September 2010, just \$597 million of NSF's ARRA funds have been expended, the lowest spending rate (or "burn rate") among federal agencies. The low burn rate, combined with the difficulties of measuring the economic impact of basic research, has made NSF appear to some to be ill suited to its role as an ARRA funding agency.

Challenge for the Agency: The primary challenge for the agency going forward will be to monitor ARRA awards to assure that grantees carry out their reporting responsibilities and that the funds are not subject to fraud, waste or abuse. An OIG review found that \$108 million in ARRA funds were awarded to institutions that warrant more oversight. NSF will be hard pressed to provide needed oversight and monitor grantee compliance with both existing and new reporting requirements.

NSF has estimated that the ARRA awards will ultimately provide support to 40,000 additional researchers. An OIG review published in June indicated that one significant problem area for those reporting about their ARRA grants is estimating the number of jobs created or saved. For NSF to participate in future stimulus initiatives, and for those efforts to have broad public support and confidence, accurate reporting of their impact on the economy and employment is critical.

\$400 million of NSF's ARRA funds were appropriated for MREFC projects. The facilities selected for funding include the Advanced Technology Solar Telescope, the Alaska Region Research Vessel (AARV), and the Ocean Observatories Initiative. We have consistently identified the planning and management of large, complex infrastructure projects such as these as a management challenge for NSF and a significant area of risk.

Finally, the agency's allocation of \$200 million of ARRA funds in support of the Academic Research Infrastructure (ARI) Program, a program NSF has not been involved with for some time, poses a challenge. This program presents the same types of risk to NSF as a newly established program and will require the sustained involvement and attention of program officers and administrative staff for months to come.

OIG's Assessment of the Agency's Progress: NSF has been effective thus far in monitoring recipient reporting and the spending of grantees. In particular, without the agency's efforts to enforce the termination of awards that have no expenditures after 12 months, it is possible that the spending rate might even be lower. NSF has also been responsive to OIG recommendations made in a June report to improve the reporting of jobs created and saved.

To ensure the accountability and integrity of ARRA funds, NSF has incorporated special weighting factors for ARRA awards into NSF's Risk Assessment Model. The agency has also indicated that it has taken a number of steps to strengthen the administration and management of both the MREFC projects and the ARI program. An OIG survey undertaken earlier this year to better understand NSF's oversight of the construction process of the ARRV disclosed no obvious problems.

CHALLENGE: Improving Grant Administration

Overview: NSF fulfills its mission to promote science chiefly by issuing limited-term grants. Currently NSF funds about 10,000 new awards each year for research proposals that have been evaluated by objective merit review panels.

The success of NSF's mission and the achievement of its goals are therefore largely dependent on effective grant administration. The American Recovery and Reinvestment Act increases the need for effective grant management as the Act requires NSF to manage an unprecedented influx of funds while meeting economic stimulus goals and responding to increased reporting requirements without additional funding for staffing. Further complicating the responsibility for grants administration is the requirement that grantees receiving ARRA funds closely monitor subrecipients' use and accounting of funds.

Challenge for the Agency: Ensuring effective oversight throughout the life cycle of an award continues to be an accountability challenge. Prior OIG audits of NSF's operations have indicated that NSF needs to continue to improve its grant management activities including the oversight of awardees' financial accountability, programmatic performance, and compliance with applicable federal and NSF requirements.

In FY 2010, NSF performed 20 percent fewer Award Monitoring and Business Assistance Program site visits than it had planned. NSF indicated that this decrease is due to staffing constraints. These site visits are important for NSF to assess awardees' capability, performance, and compliance with award requirements for awards rated as high-risk. It will be a challenge for NSF to increase the number of site visits in the future. If NSF's budget continues to grow, the resulting increase in award funds, along with the need to monitor ARRA awards without an increase in staff, compounds this challenge.

NSF also needs to ensure that awardees are providing sufficient oversight of sub-recipients. Recent grant audits found that two NSF awardees, a university and a non-profit, had material internal control deficiencies in subrecipient monitoring. It is imperative that awardees that pass federal funds through to subrecipients monitor them to ensure that their financial systems are adequate to manage the federal money they receive. If such monitoring is insufficient, NSF risks paying unallowable or even fraudulent costs.

OIG's Assessment of the Agency's Progress: In its progress report on the 2010 management challenges, NSF reported that it had taken several actions to improve awardees' oversight of subrecipients, including conducting outreach, site visits, and conferences to assist the prime awardees. In addition, NSF indicated that it had established teams which helped ensure effective

management practices over Recovery Act funds and developed procedures to address and monitor ARRA quarterly recipient reporting requirements. Finally, a joint NSF/OIG work group developed a new external audit resolution policy to improve stewardship over federal funds.

CHALLENGE: Strengthening Contract Administration

Overview: In FY 2009, NSF obligated approximately \$480 million for contracts for the delivery of products and services, including \$361 million for cost reimbursement contracts. Of that amount, NSF made advanced payments of \$270 million to three contractors with the majority going to the current United States Antarctic Program (USAP) contractor. In such situations, pre- and post-award audits are critical to preventing improper payments.

The only significant deficiency noted in NSF's 2009 financial statements audit focused on the monitoring of cost reimbursement contracts¹. The finding cites delays by the agency in obtaining audits of NSF's largest and riskiest contracts, and states that contract oversight procedures, including evaluation of contractors' accounting systems prior to awarding cost reimbursement type contracts, are inadequate and ineffective. In addition, a September 2009 report issued by GAO concerning inadequate surveillance over cost reimbursement type contracts focused on problems at NSF as well as several other agencies.

These findings coincide with the ongoing recompetition of NSF's largest contract to provide logistical support to the USAP for 13.5 years. NSF has twice delayed its award of the contract and incurred additional expenses by extending the current one.

Challenge for the Agency: The long-term challenge for NSF is to continue to strengthen its management of contract administration. To accomplish that goal, auditors made 10 recommendations that include improvements to ensure that costs paid on contracts are reasonable and accurate, and that audits of the riskiest contracts, including the current USAP contract, are obtained as soon as possible. More immediate is the delicate challenge of bringing the recompetition of the USAP contract to a successful conclusion. NSF must ensure that the process results in the selection of a contractor that can effectively support the needs of the science community while providing value to the government. The process should assure that: all offerors receive the same information and opportunities, their proposals are carefully analyzed and compared, and critical information is verified by auditors. The closeout of the existing USAP contract will also pose a challenge, as NSF must finally resolve any deferred past audit findings, as well as obtain audits of incurred costs for later contract years.

On a broader level, the administration is calling on agencies to reform their contracting organizations and practices to save money and increase efficiency. The President has set a goal of saving \$40 billion in contracting annually by FY 2011 and the President's Management Council (PMC) has asked federal agencies to reduce their use of high-risk contracts, particularly those that feature cost reimbursement provisions. The PMC is also pressing agencies to shore up the capacity and capability of the acquisition workforce, an area of NSF that needs more

¹ Such contracts provide for reimbursement of allowable costs and a profit and therefore shift some of the risk of contract performance to the government.

attention. The challenges presented by the USAP contract transition, the need to correct NSF's existing contract administration deficiencies, and meeting the heightened expectations of the administration in this area, are significant.

OIG's Assessment of Agency Progress: NSF has taken steps toward improving contract administration but has more work to do. A corrective action plan was prepared in response to the findings reported from the financial audit, and the auditors are currently evaluating the status of those actions. Meanwhile, a timely award of the new USAP contract is a priority of management, but the integrity of the process cannot be compromised. NSF has developed a plan to take the acquisition to award and has informed us that senior NSF managers are meeting regularly to assess the procurement's progress.

In preparation for closing out the current USAP contract, NSF and the Defense Contract Audit Agency (DCAA) signed an Interagency Agreement in late September for DCAA to conduct incurred cost audits of the USAP contract for 2005 through 2007. Over the past year, NSF has also completed a workload analysis of the acquisitions division and hired three additional staff as a result. It has also increased training offerings, primarily for Contract Officer's Technical Representatives. But current acquisition staffing may still not be adequate to perform necessary contract monitoring activities.

CHALLENGE: Becoming a Model Agency for Human Capital Management

Overview: World-class executive leadership and effective human capital management are vital to NSF's success as a high performing organization and to its goal of becoming a model agency for human capital management. In addition to its non-scientific and support staff, NSF's workforce includes more than 700 scientists and engineers, about half of whom are permanent government employees. To lead and maintain a world-class scientific workforce, NSF supplements its permanent, career employees with a variety of non-permanent staff. While these non-permanent personnel strengthen NSF's ties with the research community and provide the agency with executive leadership, talent and resources that are critical to accomplishing its mission, because most of them are new to the government, they are often unaccustomed to working in a federal environment.

Challenge for the Agency: Becoming a model agency for human capital management will require sustained management attention and commitment by the NSF Director and throughout the management structure at NSF. One of the most significant and long-standing challenges NSF faces is maintaining a rotating director model that capitalizes on rotators' scientific and technical expertise, while ensuring that they have the managerial knowledge and skills to ensure effective personnel management. Since rotating executives do not receive performance ratings, they are not held accountable as career executives are. Further, rotators generally do not have prior working knowledge of the federal government culture or of federal government management processes. NSF faces an ongoing challenge to provide adequate leadership and management training for its rotating executives and to address the challenges presented to its mission by frequent turnover in leadership positions. Recent staff changes in key human capital management positions may also present challenges to NSF's efforts to address its workforce issues, as does the fact that the agency does not have a full time Chief Human Capital Officer.

OIG's Assessment of Agency's Progress: NSF has taken several steps to address its workforce challenges. For example, it established a Human Resources Policies Working Group which has produced a number of workforce recommendations including ones directed at the role of rotators. In August, NSF received the results of OPM's review of its human capital management system which raised a number of significant concerns. In its response to OPM's recent human capital management evaluation, the Acting Director stated that she is committed to holding all managers and human resource officers accountable for meeting their human capital management responsibilities.

The agency has reported that it has also initiated planning to institute a performance management process for rotators serving at NSF under the Intergovernmental Personnel Act (IPAs) that will set clear performance expectations and ensure that IPAs are evaluated on a regular basis. Further, NSF has started the rollout of its New Executive Training Program to train new managers and to orient them to federal processes. NSF has also offered management training in a number of areas, including addressing performance problems, leadership skills, and managerial responsibilities which are targeted at the executives. NSF has stated that it intends to continue developing its training program, including adding a management development seminar for all new executives.

CHALLENGE: Encouraging Ethical Conduct of Research

Overview: Reports of scientists committing research misconduct violations or otherwise engaging in questionable research practices are on the rise due partly to the temptations presented by ever increasing amounts of information available on the internet combined with the development of more powerful search tools. The situation is further exacerbated by the growing number of research collaborations between American researchers and scientists and students from different nations: in such cases individual researchers are often unclear as to which country's set of rules applies, as there are differences between the various science communities concerning research ethics and the reporting and compliance regime to which they are subject. International organizations such as the OECD's Global Science Forum (GSF) have taken steps to bridge the differences on these issues and develop one framework that will apply in the area of research misconduct. According to studies, encouraging ethical conduct of research through expanded training offerings has the potential to make a significant difference in reducing the occurrence of questionable professional practices and research misconduct.

Challenge for the Agency: NSF's challenge is to strengthen the understanding of and adherence to recognized standards of ethical research conduct by scientists in the U.S. and the foreign partners who participate in the international collaborations it funds. It can address this challenge in part by complying with the America Competes Act, which requires NSF to ensure that each institution that applies for financial assistance describes its plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project.

Like other science funding agencies, NSF is also grappling with the question of deciding how to implement a single framework for the investigation and resolution of research misconduct allegations made against a participant in a multinational collaboration. In April 2009, the Global Science Forum issued a report, *Research Integrity: Preventing Misconduct and Dealing with Allegations*, that provides a basis for research integrity frameworks in projects involving international partners. NSF must determine how to support this effort and to implement its recommendations.

OIG's Assessment of Agency's Progress: During the past year, NSF expanded its *Proposal & Award Policies and Procedures Guide* to provide guidance addressing research integrity in international collaborations. It also included a link to the April 2009 GSF report. NSF also helped to support an *International Responsible Conduct of Research Education Workshop* held in conjunction with the 2nd World Conference on Research Integrity in July 2010. Finally, it made several awards focused on improving ethics education. As next steps, NSF has made broad promises to continue to develop material and best practices, and enhance training and outreach activities related to accountability in the international context.

CHALLENGE: Effectively Managing Large Facilities and Instruments

Overview: NSF's Major Research Equipment and Facilities Construction received \$400 million in Recovery Act funds to upgrade enhance research capabilities. Within this program, NSF funded the construction of three major facilities: the Alaska Region Research Vessel, Ocean Observatories Initiative, and the Advanced Technology Solar Telescope.

Challenge for the Agency: Management of its large facilities presents several challenges for NSF. One challenge for the agency is project oversight and management to ensure that projects are on time, on budget, and meeting performance expectations. We have previously noted NSF's challenge in assessing the performance of awardees. The influx of Recovery Act funds and the accompanying additional transparency and reporting requirements compound this challenge.

OIG's Assessment of the Agency's Progress: NSF reported that it is continuing efforts to provide effective oversight of large facilities and that it has taken several actions, including providing monthly facilities status reports to the Budget, Finance, and Award Management Office and providing feedback to directorates on annual facility performance goals and metrics. NSF also stated that it plans additional actions including reporting on visits to facility sites to provide feedback on project management/oversight issues.

An audit completed in the past six months identified a significant concern with NSF's funding of contingencies in a cooperative agreement for one of its large facilities. Specifically, the audit questioned \$88 million, including more than \$34 million in Recovery Act funding allocated for contingency costs in NSF's cooperative agreement with the Consortium for Ocean Leadership (COL). COL will manage the construction of the Ocean Observatories Initiative. Further, the audit disclosed that during the construction of the observatories, COL can draw down contingency funds as advances without NSF approval.

We also identified two emerging challenges that warrant NSF's close attention—implementation of the Open Government Directive and planning for NSF's next headquarters.

Implementing the Open Government Directive

The Open Government Directive was issued in December 2009 in response to the President's call to establish a system of transparency, public participation, and collaboration with the federal government. The directive requires agencies to: publish government information online; improve the quality of information; create and institutionalize a culture of open government; and create an enabling policy framework for open government. NSF has pledged in its Open Government Directive Plan that its key principle will be that *"unless shown otherwise, the default position shall be to make NSF data and information available in an open machine-readable format"*.

Since much of NSF's research is not easily comprehensible to those outside the science community, it has been an ongoing challenge for the agency to describe its activities and their value to the public. The Directive presents NSF with an opportunity to reflect on how it communicates the work it funds and how it can improve the quality of the wide range of information that it disseminates. In particular, to foster greater transparency and accountability, NSF should review its financial and performance reports from the perspective of the public and ensure that they answer the basic questions that an interested stakeholder might ask.

In the case of publishing research results, the agency has had to carefully navigate sensitive issues related to confidentiality and privacy. The primary challenge for NSF will be to reconcile the interests and prerogatives of the researchers and research publications with the right of the public to have access to taxpayer funded information. NSF is attempting to balance those two priorities through two new services available at Research.gov, which will provide long sought after details about research grants, including abstracts and publication citations. As agencies are expected to perform a number of recurring actions aimed at informing and engaging the public, NSF will also be challenged to ensure that it has adequate staffing to maintain its commitment to the Open Government Directive.

NSF's Open Government Directive Plan has a number of initiatives aimed at increasing the *quantity* of information available to the public, but little is written about improving the *quality* of information. We hope that as the plan evolves, NSF will give more attention to this issue. NSF has also enlisted a number of social media and other channels to increase public participation in and knowledge about its activities, which may help the agency to become more attuned to the needs of its users and the public.

Planning for the Next NSF Headquarters

NSF's leases for headquarter facilities in Arlington, Virginia expire in December 2013. In preparation for a new long-term lease, NSF developed criteria and goals through surveys and focus groups with NSF leadership and staff. In April 2010, NSF submitted a lease prospectus to the Office of Management and Budget (OMB) identifying future size and space requirements, expected number of staff, location, and rental rate information. After approval by OMB, GSA

will send the prospectus to Congress. The competitive procurement for a new NSF lease could begin as early as the first quarter of FY 2011.

NSF has been in its current location since 1993 and planning for headquarters facilities that meet NSF's future needs presents a major challenge for the agency. Within the tight budget environment in which we are operating, NSF is seeking to design a space that incorporates technological advances, reflects sustainable and energy efficient design, and meets the need for flexible and collaborative meeting workspace since many panels and conference meet at NSF headquarters. The OIG plans to pay close attention to the lease procurement project because of the complexity and cost involved, as well as its implications for the next-generation NSF.

NATIONAL SCIENCE FOUNDATION
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OFFICE OF THE
DIRECTOR

MEMORANDUM

Date: NOV -3 2010

To: Allison C. Lerner
Inspector General, NSF

From: Director, NSF

Subject: NSF's Progress on the FY 2010 Management Challenges, and Acknowledgement of Receipt of the Inspector General's FY 2011 Management Challenges Memorandum

The attached Progress Report highlights the accomplishments we have achieved on the management challenges during FY 2010, which covered six broad areas: Ensuring Proper Stewardship of American Recovery and Reinvestment Act (ARRA) Funds; Improving Grant Administration; Strengthening Contract Administration; Becoming a Model Agency for Human Capital Management; Encouraging the Ethical Conduct of Research; and Effectively Managing Large Facilities and Instruments. A number of these challenges will continue to require NSF management's long-term collaborative cross-agency attention.

Thank you for your memorandum of October 15, 2010, regarding potential management challenges for the National Science Foundation in FY 2011, and for noting the long-term nature of the challenges. As in past years, your memorandum will be shared and discussed with the Foundation's executive staff and senior officers.

The Foundation remains committed to serving our community effectively, continually improving stewardship, and safeguarding the federal funds awarded by NSF, while supporting the NSF mission. We look forward to working with your office to achieve these goals.

Subra Suresh

Attachment

cc: Chair, National Science Board
Chair, National Science Board Audit and Oversight Committee

NATIONAL SCIENCE FOUNDATION (NSF)
Fiscal Year (FY) 2010 Progress Report on OIG Management Challenges

<p>CHALLENGE: Ensuring Proper Stewardship of ARRA Funds</p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Encouraged the expeditious spending of American Recovery and Reinvestment Act (ARRA) funds by including a provision in the terms and conditions for all ARRA awards, informed awardees that NSF may consider terminating or reducing awards if no allowable expenditures have been made after 12 months.</p> <p>Designed and implemented an agency practice of monitoring ARRA awardee expenditures ("burn rate").</p> <p>Acknowledged additional emphasis placed on stewardship over ARRA investments by incorporating special weighting factors for ARRA awards into NSF's Risk Assessment Model and ARRA-specific modules into advanced monitoring (e.g., Site Visits, Desk Reviews) protocols.</p> <p>Instituted an NSF recipient reporting process as required by ARRA. Each quarter, recipients that received ARRA funding must submit reports on the progress and status of their grants via www.FederalReporting.gov, which includes both financial and programmatic information. NSF conducted a data quality review of the submissions and identified material omissions or significant reporting issues that could mislead the public about the intent and scope of the award.</p> <p>Implemented a multi-phase recipient reporting review process throughout the quarter comprised of: (1) reviews for omissions (non-reported awards) and/or significant errors; (2) checks for compliance through data matches; (3) a sampling review of descriptive fields; and (4) validation against the Federal Financial Report submitted for the comparable quarter.</p>
<p><i>a. Spending ARRA funds expeditiously while ensuring accountability</i></p>	<p>NSF's Anticipated Next Steps</p> <p>Continue the process of monitoring expenditures per the "burn rate" terms and conditions until all ARRA awards reach the 12-month milestone.</p> <p>Review the "burn rate" process for potential improvements based on feedback and insights gathered from the initial set of notifications to NSF awardee institutions.</p> <p>Continue the above-described recipient reporting process, reviewing for potential improvements, and incorporating revised OMB guidance as appropriate.</p>
<p><i>b. Job creation and retention</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Updated the NSF's <i>American Recovery and Reinvestment Act Recipient Reporting Data Quality Assurance Plan</i> to include the most recent jobs reporting guidance required by the Office of Management and Budget (OMB), and to capture the ARRA data quality review process.</p> <p>Updated and issued guidance to grantees that incorporates the jobs reporting guidance requirements from OMB.</p> <p>Updated the protocol for reviewing ARRA recipient reports to add a third check on the number of jobs based on the Office of Inspector General (OIG) data quality review.</p> <p>Worked with the National Institutes of Health and the White House Office of Science and Technology Policy to support the initiation of Science and Technology in America's Reinvestment-Measuring the Effect of Research on Innovation,</p>

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	<p>Competitiveness, and Science (STAR METRICS), a federal and university partnership which is developing an empirical framework to measure the outcomes of science investments including accurately measuring job creation and retention.</p> <p>NSF's Anticipated Next Steps</p> <p>Update the data assurance plan, external guidance to grantees, and the review protocol on an as-needed basis to incorporate OMB guidance and Recovery Act Board requirements, which are dynamic.</p> <p>Continue tracking, reporting, and validating job creation and retention data until ARRA awards are completed and closed.</p> <p>Continue to support STAR METRICS, working with university stakeholders to encourage STAR METRICS pilots and adoptions at the appropriate time for measuring economic impact including job creation and retention.</p>
<p><i>c. ARRA funds to support the Academic Research Infrastructure Program</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Restructured the ARRA Award Processing Tiger Team to focus on Academic Research Infrastructure (ARI) due to the magnitude of the \$200 million new program that funds complex projects, including construction projects for the repair or renovation of U.S. academic research facilities.</p> <p>Conducted bi-weekly meetings of the ARRA ARI Tiger Team with support of the ARI Program Director and participation by OIG and NSF staff to ensure that challenges were identified early, allowing agency staff to strategize and support programmatic implementation efforts before problems arise.</p> <p>Included staff from the Office of Budget, Finance, and Award Management in the weekly Office of Integrative Activities work group meetings with ARI program staff to discuss progress and integrate business and policy matters as needed.</p> <p>Created a single point of contact in the Division of Grants and Agreements (DGA) for consistency for all ARI awards across Directorates; DGA and the ARI Program Director worked closely to identify potential new awardees and pre-award documentation needed to facilitate the award process.</p> <p>Instituted a practice of clearing ARI program documents including the solicitation, Frequently Asked Questions (FAQs), and the program's terms and conditions through OMB.</p> <p>Leveraged award processing expertise to identify concerns that may arise due to potential awards to institutions without detailed history of NSF or other federal support.</p> <p>Acknowledged the additional emphasis placed on stewardship over ARRA investments by incorporating special weighting factors into NSF's Risk Assessment Model and ARRA-specific modules into advanced monitoring protocols; amended award-specific provisions as needed to restrict awardee expenditures until specific requirements are met.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue weekly ARI Program Work Group meetings through the project award stage, and then subsequently convert to a post-award committee to collaborate on individual project and programmatic issues that arise.</p> <p>Design and facilitate sub-recipient approval process in accordance with the terms and conditions of certain ARI awards and</p>

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	<p>NSF policies and procedures.</p> <p>Develop a monitoring strategy that will leverage agency expertise as needed in areas such as construction and infrastructure.</p>
<p><i>d. ARRA funds to support MREFC projects</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Strengthened requirements agency-wide for large facilities projects that receive ARRA funds, i.e., the Director issued a memo stating that all ARRA requirements (e.g., Davis Bacon Act, Buy America Act) will apply to all three Major Research Equipment and Facilities Construction (MREFC) ARRA-funded projects.</p> <p>Updated internal Business Systems Review (BSR) processes and documentation to ensure that all ARRA-related requirements, such as recipient reporting, are appropriately considered during the review, and initiated a BSR on the Alaska Region Research Vessel (ARRV) project.</p> <p>Coordinated with the OIG to work cooperatively, sharing drafts (e.g., BSR process documentation related to the ARRV review) to facilitate more effective OIG oversight.</p> <p>Partnered among NSF divisions to refine agency business practices, creating a more systematic approach to monitoring and oversight for ARRA projects.</p> <p>Refined agency business systems to properly segregate MREFC and ARRA appropriations to ensure that the agency's cooperative support agreements include special terms and conditions specific to ARRA requirements.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue to monitor and incorporate lessons learned in BSR documentation, processes and practices.</p> <p>Conduct follow-up and monitoring after the ARRV site visit.</p> <p>Plan comprehensive BSRs when timing and coordination with other audits and oversight permits.</p> <p>Work with awardees to develop certification procedures for requirements of the Buy America Act.</p>
<p>CHALLENGE: Improving Grant Administration</p> <p><i>a. Refine post-award administration policies and practices</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Revised the Foundation's entire suite of Award Terms and Conditions (T&Cs) to incorporate new OMB mandates for: (1) reporting information on first-tier subawards, including executive compensation, and (2) requiring active awardees to maintain current Central Contractor Registration and Universal Identifier Requirements at all times and prohibiting the making of subawards to entities without Dun & Bradstreet (DUNS) numbers. Revised T&Cs apply to all new awards and supplemental funding actions issued on or after October 1, 2010.</p> <p>Established the NSF-OIG Work Group on Audit as a corrective action for the OIG Report, <i>Audit of NSF's Audit Resolution Process for OIG Audits of NSF Awardees</i> (OIG 10-2-006); established NSF-OIG Audit Resolution Management Team weekly meetings with a goal to improve stewardship of federal investments.</p> <p>Issued a draft policy on collaborative audit resolution and follow-up; conducted a joint meeting with NSF and OIG staff</p>

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	<p>who have audit responsibilities, sharing new operating principles and agreements.</p> <p>Updated the Award Monitoring and Business Assistance Program (AMBAP) to: (1) highlight actions against Grantees unresponsive to inquiries on findings regarding financial capabilities, and (2) require written justifications when Site Visit coverage deviates from modules initially selected for review.</p> <p>Identified recurring findings and emerging issues in the FY 2009 AMBAP Site Visits and Desk Reviews and used the results to prototype targeted in-reach to strengthen program staff understanding of grantee administrative requirements.</p> <p>Implemented Cost Analysis and Audit Resolution staff development to upgrade skills, i.e., a mandatory technical writing course to strengthen written justification of findings and to improve identification of essential factors for assessing institutional financial capability.</p> <p>Implemented the electronic Division Director-concur process Agency-wide, after completion of β-testing, to automate the Program Officer/Division Director electronic sign-off and certification of award.</p> <p>Modified eJacket to include automated reminders and overdue notices for Grantees with awards that contain \$500,000 or more in cost share over the life of the award.</p> <p>Released the final, NSF and OIG joint policy on collaborative audit resolution for implementation in FY 2011, and participated with OIG audit staff in an Association of Government Accountants (AGA) Audio Conference on <i>Improving Program Performance and Accountability Through Cooperative Audit Resolution</i>; it overviews AGA's <i>Cooperative Audit Resolution and Oversight Initiative Guide</i> and features a presentation by NSF's Deputy Division Director/Division of Institution and Award Support and the Assistant Inspector General for Audits describing NSF's experience with its implementation.</p> <p>NSF's Anticipated Next Steps</p> <p>Establish a standing NSF and OIG Committee, the Stewardship Collaborative, to monitor the audit resolution process and address outstanding and emerging issues related to NSF Management/OIG relations.</p> <p>Conduct additional analyses of Site Visit and Desk Review findings to identify opportunities for targeted in-reach to NSF program offices and to refine the AMBAP risk assessment weighting structure to focus more effectively on vulnerabilities and risks.</p> <p>Continue to upgrade policy and procedural guidance to NSF staff and the field through recurring re-issuance of its policies and procedures manuals, outreach activities, FAQs, etc.</p>
<p>b. <i>Improve monitoring of program performance</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Established an expansive ARRA award monitoring program, which will be incorporated as lessons learned moving forward in NSF's non-ARRA portfolio. ARRA award monitoring activities included:</p> <p>Establishing a senior-level management ARRA Steering Committee comprised of program, financial, and legal</p>

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	<p>executives to manage monitor all NSF ARRA activities.</p> <p>Establishing Tiger Teams to ensure effective management practices and stewardship over ARRA funds while meeting economic stimulus objectives; team concept ensured an inclusive approach and enhanced communication between program and financial oversight staff, as well as helped to ensure that sufficient staff resources were available to participate in planning and execution of administrative strategies.</p> <p>Developing comprehensive policies and procedures to address transfer of ARRA awards and quarterly recipient reporting requirements, identified resources that staff can refer to if they receive questions from the recipient community, and described the automated data quality review process and program officer involvement in the quarterly manual sampling of reports.</p> <p>Monitoring program performance related to ARRA-funded awards, i.e., created and tested sampling protocols; sampled reports review modules; updated data quality tracking tools; incorporated findings into risk assessment; updated and published program plans; and reported milestones.</p> <p>Implemented Section 7010 of America COMPETES Act (ACA) by establishing a Project Outcomes Report for the General Public, to be written in lay terms and summarize the nature and outcomes of the NSF-funded activity; added Project Outcomes Report training to the list of topics addressed at NSF outreach activities.</p> <p>Added Project Outcomes Report training and outreach to the broad list of policy and procedural topics addressed at NSF Regional Grants Conferences and at major meetings of the Council on Governmental Relations, Federal Demonstration Partnership, National Council of University Research Administrators, Society of Research Administrators International, and the Colleges of Liberal Arts Sponsored Programs.</p> <p>Formed a joint committee of NSF program staff from two research directorates to provide strategies, and tools for, improving the way NSF interacts with its proposal and award portfolio. The committee's report will advise NSF on how to better structure existing data, make use of existing machine learning, analysis, and visualization techniques to complement human expertise and better characterize its programmatic data.</p> <p>Proposed to NSF's Business Applications Requirements Review Board that business requirements for a <i>Dashboard</i>, intended as a suite of tools, be made available via <i>Research.gov's Desktop</i>. The <i>Dashboard</i> will provide functionality around financial and administrative grants management at the award level (short-term) and for entire portfolios (long-term). Target audiences are BFA award and oversight divisions, and scientific and administrative program staff. Program involvement and resource availability will govern development/implementation.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue ARRA award monitoring to include financial, administrative, and programmatic performance.</p> <p>Incorporate ARRA lessons learned into program performance and monitoring of NSF's non-ARRA portfolio.</p> <p>Continue to build on the working relationship developed between program and administrative staff to develop tools to</p>
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	<p>improved NSF interaction with its programmatic data.</p> <p>Consideration, by NSF's Accountability and Performance Integration Council (APIC), of next steps that will allow informed judgments about the efficiency and effectiveness of NSF's financial, administrative, and programmatic performance.</p> <p>Task APIC with management and oversight of agency-wide efforts to enhance NSF's existing grants management model to include end-to-end performance tracking as an integral component of the Agency's comprehensive portfolio of accountability efforts.</p> <p>Define the high-level architecture and resource requirements for a prototype <i>Financial Dashboard</i> under <i>Research.gov</i> and establish a Work Group of program and administrative staff to develop and β-test a prototype offering that will make award-level financial information immediately accessible, facilitating validation of project status, financial management, and full investment of appropriated funds in Agency mission.</p>
c. <i>Improve subrecipient oversight</i>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Conducted or participated in numerous outreach efforts to assist awardees in monitoring and administering federal awards, i.e., Regional Grants Conferences, site visits and conferences; business assistance under AMBAP including a module on NSF review of awardee subrecipient monitoring policies and procedures.</p> <p>Provided awardee support through participation in program-sponsored outreach targeting the community of research administrators including outreach conducted at the Directorate for Education and Human Resources-sponsored Joint Annual Meeting; emphasized awardees' responsibility to review subrecipient capabilities including financial capacity and compliance with their established procedures for selection, award, administration, and monitoring of sub-awardees.</p> <p>Designed NSF staff presentations at the (above) meetings, site visits and conferences to highlight administrative responsibilities and to provide more targeted outreach due to the level of funding under ARRA and its significant, unique reporting requirements.</p> <p>Initiated review of the final draft OMB guidance for Federal Funding Accountability and Transparency Act subrecipient reporting to determine what impact it may have on NSF's systems and policies.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue review of Final Draft OMB Guidance.</p>
CHALLENGE: Strengthening Contract Administration	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Executed a modification to extend the current U.S. Antarctic Program (USAP) contract through March 31, 2011 to ensure continuity of operations during the source selection phase of the procurement.</p> <p>NSF's Anticipated Next Steps</p> <p>Actively manage the procurement process.</p>
a. <i>Administer an effective and successful USAP procurement process</i>	

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<p><i>b. Closeout existing USAP contract</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Worked closely with the Defense Contract Audit Agency to resolve audit-related issues.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue to work with the Defense Contract Audit Agency and the Defense Contract Management Agency to resolve audit-related issues.</p>
<p><i>c. Continue strengthening contract monitoring efforts</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Prepared a Corrective Action Plan for the Significant Deficiency on Contract Monitoring of Cost Reimbursement Contracts; the Plan was reviewed by the OIG who agreed with the majority of management's actions.</p> <p>Completed a workload analysis of the Division of Acquisition and Cooperative Support to ascertain long term staffing needs; the analysis is being used as the basis for hiring; three additional staff have been hired to meet workload challenges.</p> <p>Provided a variety of training: annual Contracting Officer Technical Representative (COTR); follow-up brown bag sessions focused on the COTR Handbook and NSF systems, policies, and procedures that impact COTRs; writing a Statement of Work; and using the National Institutes of Health's Contractor Performance System for acquisition personnel to provide past performance information.</p> <p>Issued guidance on contract type selection specifically to assist and inform the acquisition professional on the risk determinations that are inherent in contract type selection.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue to work with OIG in the implementation and monitoring of Corrective Action Plans.</p> <p>Seek additional opportunities to refine the contracting manual guidance regarding cost reimbursement contracting.</p> <p>Continue to ensure that the acquisition workforce is certified and trained to appropriate levels to assume assigned contract monitoring duties.</p> <p>Based on the request for 11 full-time equivalents in the NSF's 2011 budget, establish an Acquisition Support Team whose purpose is to serve as a resource to support program officers in pre-solicitation, post-solicitation, and post-award contract monitoring activities.</p> <p>Embrace Federal Government Acquisition process improvement initiatives.</p>
<p>CHALLENGE: <i>Becoming a Model Agency for Human Capital Management</i></p> <p><i>a. Improve the workforce</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Convened a work group of Deputy Assistant Directors to review and modify workload and workforce models that will integrate multiple weighted workload and budget factors to predict changes in workload and identify the number of full-time equivalents needed for the out-years.</p> <p>Created the Directorates' annual staffing plans to guide ongoing hiring and succession planning efforts and to ensure</p>

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<i>planning process</i>	<p>efficient use of limited resources.</p> <p>Conducted annual workforce analysis to monitor trends in staffing levels and composition, track retirement rates and future projections, and monitor other workforce indicators of interest to the successful fulfillment of NSF's mission.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue to refine workload and workforce models, incorporating additional time for program oversight and management into the model, and incorporate metrics that reflect the increased number of cross-organization solicitations and increasing numbers of co-reviewed and/or co-funded interdisciplinary proposals and awards.</p> <p>Review and update the staffing planning process to bring it more in line with budget cycles and better integrate workload indicators.</p>
<i>b. Define role for rotators</i>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Established the Human Resources Policies Work Group, which produced a set of recommendations that included, among other things, issues related to the role of rotators at NSF.</p> <p>Initiated planning to institute a performance management process for all Intergovernmental Personnel Act (IPA) employees that will set clear expectations for their performance and ensure that they are evaluated on a regular basis.</p> <p>Provided a suite of learning opportunities designed to inform new managers and managers new to government about their management and supervisory responsibilities.</p> <p>NSF's Anticipated Next Steps</p> <p>Determine what actions to take and in what priority order, and then assess the resources needed to accomplish tasks identified in the Human Resources Policies Work Group report.</p> <p>Implement a performance management process for executive-level IPAs during the next Senior Executive Service performance cycle (September 2010 to August 2011), and then implement a process for non-executive IPAs during the next General Workforce performance cycle (April 2011 to March 2012).</p> <p>Continue to enhance management learning opportunities, including the complete implementation of the New Executive Transition Program.</p>
<i>c. Continue progress in succession planning</i>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Recognized the unique nature of the rotational workforce and the increased emphasis that places on the need to continually train new managers and orient them to federal processes, and began the rollout of the New Executive Training Program to</p>

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	<p>address this unique need.</p> <p>Offered management classes targeted at new federal managers at the highest levels using a curriculum that included: Basic Managerial Rights and Responsibilities, Addressing Performance Problems, Leadership and Problem Solving Skills, Supervisory Support for Individual Development Plans, and Creating and Revising performance Plans.</p> <p>Created the Directorates' annual staffing plans to guide ongoing hiring and succession planning efforts and to ensure efficient use of limited resources, and addressed succession planning, skill gaps, hiring strategies, and training needs during staffing planning discussions.</p> <p>Conducted skill gap analysis in critical support areas and developed action plans to fill gaps with innovative hiring and training initiatives.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue rollout of the New Executive Training Program including a two-three day orientation and management development seminar for all new executives.</p> <p>Offer additional management development opportunities at least annually, including: Creating an Executive Development Plan (Executives), Federal Human Resource Management Overview, Making the Transition to Management (new supervisors), Mentoring and Coaching Employees, and The Art and Science of Picking the Right People.</p>
<p>CHALLENGE: Encouraging the Ethical Conduct of Research</p> <p>a. <i>Strengthen understanding and adherence to standards</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Implemented Section 7009 of ACA in the <i>NSF Proposal & Awards Policies and Procedures Guide</i> to include a new certification requiring Grantees to establish a plan for providing training and oversight in the responsible and ethical conduct of research (RCR) to undergraduates, graduate students, and postdoctoral researchers; and implemented an associated grant condition requiring that Grantees' designee(s) oversee compliance with the RCR training requirements.</p> <p>Posted an RCR Webpage on NSF's Website for use by institutions in developing their RCR implementation plans.</p> <p>Conducted RCR training and outreach at NSF Regional Grants Conferences and major meetings of the Council on Governmental Relations, Federal Demonstration Partnership, National Council of University Research Administrators, Society of Research Administrators International, and Colleges of Liberal Arts Sponsored Programs.</p> <p>Conducted, in collaboration with the Society of Research Administrators International, two RCR webinars for the research administration community: <i>Interpretation & Implementation of NSF's Regulations to Facilitate the Ethical Conduct of Research</i>, and <i>Requirements for Responsible Conduct of Research</i>.</p> <p>Conducted a competition and made an award to support a team of researchers who will create an online resource center that develops/compiles/maintains resources related to ethics in science/mathematics/engineering; it will provide access to</p>

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	<p>information/expertise for instructors; students with questions about research integrity; researchers who encounter ethical challenges; administrators who oversee compliance; and scholars who conduct research on professional or research ethics.</p> <p>NSF's Anticipated Next Steps</p> <p>Continue to upgrade policy and procedural guidance to staff and the field through recurring re-issuance of its policies and procedures manuals, outreach activities, FAQs, etc.</p>
<p><i>b. Responsibility to help lead international efforts to implement a framework</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Presentation by the Office of International Science and Engineering (OISE) to the National Science Board on International Research Integrity.</p> <p>Presentation by the NSF Policy Office at the 2nd World Conference on Research Integrity, and funding of a post-conference workshop on International Responsible Conduct of Research Education.</p> <p>Incorporated material/discussion of RCR in the Partnerships for International Research and Education Principal Investigator meeting and the East Asia and Pacific Summer Institutes student orientation.</p> <p>Developed and posted a website on International Research Integrity on the OISE webpage http://www.nsf.gov/od/oise/intl-research-integrity.jsp that links to the NSF RCR page and vice versa, and to the NSF Office of Inspector General's webpage.</p> <p>Required RCR mentoring for students and postdocs who will be supported by the G8 Multilateral Research Funding Initiative.</p> <p>NSF's Anticipated Next Steps</p> <p>Update OISE in-reach and outreach materials to address international accountability and research integrity.</p> <p>Work with the NSF Academy to develop case studies involving international accountability and research integrity.</p> <p>Revise the Program Information Management System template to include a statement about "international collaborative oversight" in applicable proposal generating documents with international dimensions.</p>
<p>CHALLENGE: <i>Effectively Managing Large Facilities and Instruments</i></p> <p><i>a. Management and oversight of large facilities projects</i></p>	<p>NSF's Significant Actions Taken in FY 2010</p> <p>Collaboratively assisted program staff in the oversight of three projects started in FY 2010: Advanced Technology Solar Telescope, Alaska Region Research Vessel, and Ocean Observatories Initiative, and jointly planned and carried out the Final Design Review of the National Ecological Observatory Network.</p> <p>Strengthened NSF oversight of other large facility projects in planning, construction, and operation. Participated with GEO staff to plan, carry out, and assess Preliminary and Final Design Reviews of the National Center for Atmospheric Research/Wyoming Supercomputer Center and the <i>Alvin</i> (a deep-sea research vessel) Replacement Human Occupied Vehicle.</p>

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	<p>NSF's Anticipated Next Steps</p> <p>Continuing efforts - NSF recognizes that effective oversight of large projects, planning, construction, and operations requires continuing agency efforts. The Large Facilities Office will continue to contribute to that role by collaborating with programs through ongoing review, assessment, evaluation, and reporting to NSF Senior Management by:</p> <ul style="list-style-type: none">Providing monthly facilities status reports to the Budget, Finance, and Award Management Office of Assistant Director.Contributing to the formulation, execution, and assessment of project management aspects of project reviews.Reporting on visits to facility sites to provide constructive feedback on project management/oversight issues.Reviewing and providing feedback to Directorates on annual facility performance goals and metrics to promote consistency of all goals for NSF supported large facilities.Continuing to chair the NSF Facilities Panel in review of Internal Management Plans for future NSF Facilities.Maintaining the NSF Large Facility Manual as a resource for policy and procedural guidance on the conduct of Large Facilities, and engaging NSF's Senior Management Round Table in review of various revised modules.Carrying out the: (1) "Project Science" and "Facilities Workshop" as forums for training NSF staff and research community members in planning/construction/operation of major research infrastructure; (2) Business and Operations Advisory Committee's ad hoc subcommittee on facilities recommendations to provide guidance on strategies for funding/governance of future research infrastructure; and (3) Business Systems Reviews of the National Ecological Observatory Network, Advanced Technology Solar Telescope, and Alaska Region Research Vessel - Sikuliaq.
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Undisbursed Balances in Expired Grant Accounts

The following information is being provided in accordance with Section 537 of the Commerce, Justice, Science, and Related Agencies Appropriations Act, 2010, of the Consolidated Appropriations Act (Pub. Law 111-117).

1. Details on future action the department, agency, or instrumentality will take to resolve undisbursed balances in expired grant accounts.

The National Science Foundation (NSF) has a comprehensive post-award monitoring process. Grants awards are closed based on award expiration date. One quarter after an award expires, all unliquidated funds are de-obligated.

2. The method that the department, agency or instrumentality uses to track undisbursed balances in expired grant accounts.

NSF tracks undisbursed balances on expired grants through its quarterly financial close-out process. In general, grants are financially closed one full quarter after the award expiration date and any undisbursed balance is de-obligated.

Exceptions to closing out expired awards include:

- Grantee requests (for one additional quarter) in order to complete final reconciliations.
- Program office requests.
- The NSF Grantee Cash Management Section (GCMS) defers close-out of a grant to correct a reporting issue or obligation problem.

NSF's SF-133 statements provide information on the quarterly status of appropriated funds by account.

3. Identification of undisbursed balances in expired grant accounts that may be returned to the Treasury of the United States.

NSF identifies funding to be returned to the Treasury upon cancellation of appropriations. At the conclusion of FY 2010, \$33.68 million was returned to Treasury from all cancelled appropriations.

4. In the preceding three fiscal years, details on the total number of expired grant accounts with undisbursed balances (on the first day for each fiscal year) for the department, agency, or instrumentality and the total finances that have not been obligated to specific project remaining in the accounts.

Undisbursed Grant Balances as of:	
September 30, 2010	\$1,733.12 million
September 30, 2009	\$1,660.45 million
September 30, 2008	\$1,525.64 million
<i>Note: Includes grants and cooperative agreements for the Research and Related Activities and Education and Human Resources accounts.</i>	

Patents and Inventions Resulting From NSF Support

The following information about inventions is being reported in compliance with Section 3(f) of the National Science Foundation Act of 1950, as amended [42 U.S.C. 1862(f)]. There were 1,430 NSF invention disclosures reported to the Foundation either directly or through NIH's iEdison database during FY 2009. Rights to these inventions were allocated in accordance with Chapter 18 of Title 35 of the United States Code, commonly called the "Bayh-Dole Act."

Acronyms

AFR	Annual Financial Report	GSF	Global Science Forum
AOAM	Agency Operations and Award Management	HC	Human Capital
APIC	Accountability and Performance Integration Council	ICASS	International Congress of Arctic Social Sciences
APR	Annual Performance Report	ICWG	Ice Core Working Group
ARI	Academic Research Infrastructure	IG	Inspector General
ARI-R2	Academic Research Infrastructure—Recovery and Reinvestment	IPA	Intergovernmental Personnel Act
ARRA	American Recovery and Reinvestment Act of 2009	IPIA	Improper Payments Information Act of 2002
ARRV	Alaska Region Research Vessel	IT	Information Technology
ATST	Advanced Technology Solar Telescope	K-12	Kindergarten to Grade 12
AURA	Association of Universities for Research in Astronomy	MOU	Memorandum of Understanding
CFO	Chief Financial Officer	MREFC	Major Research Equipment and Facilities Construction
CIP	Construction-In-Progress	MRI-R2	Major Research Instrumentation—Recovery and Reinvestment
CMIA	Cash Management Improvement Act	MSP	Math and Science Partnership
COL	Consortium for Ocean Leadership	NAIC	National Astronomy and Ionosphere Center
CSEMS	Computer Science, Engineering, and Mathematics Scholarship Program	NIH	National Institutes of Health
CSRS	Civil Service Retirement System	NRAO	National Radio Astronomy Observatory
DOL	Department of Labor	NSB	National Science Board
DRB	Director’s Review Board	NSF	National Science Foundation
EHR	Education and Human Resources	OECD	Organisation for Economic Co-operation and Development
FAS	Financial Accounting System	OIG	Office of Inspector General
FASAB	Federal Accounting Standards Advisory Board	OMB	Office of Management and Budget
FBWT	Fund Balance with Treasury	OOI	Ocean Observatories Initiative
FCTR	Federal Cash Transaction Report	OPM	Office of Personnel Management
FECA	Federal Employees’ Compensation Act	OPP	Office of Polar Programs
FERS	Federal Employees Retirement System	PI	Principal Investigator
FFMIA	Federal Financial Management Improvement Act of 1996	PL	Public Law
FFR	Federal Financial Report	PMC	President’s Management Council
FFRDC	Federally Funded Research and Development Center	PP&E	Property, Plant, and Equipment
FISCAM	Federal Information Systems Control Audit Manual	RFP	Requests for Proposals
FMFIA	Federal Managers’ Financial Integrity Act of 1982	R&RA	Research and Related Activities
FISMA	Federal Information Security Management Act	RPSC	Raytheon Polar Services Company
FMFIA	Federal Financial Management Improvement Act of 1996	SBR	Statement of Budgetary Resources
FTE	Full Time Equivalents	SFFAS	Statements of Federal Financial Accounting Standards
FY	Fiscal Year	STAR METRICS	Science and Technology for America’s Reinvestment: Measuring the Effect of Research on Innovation, Competitiveness, and Science
GAAP	Generally Accepted Accounting Principles	STEM	Science, Technology, Engineering, and Mathematics
GAO	Government Accountability Office	TAFS	Treasury Appropriation Fund Symbol
GPRA	Government Performance and Results Act	TBD	To Be Determined
GSA	Government Services Administration	UCAR	University Corporation for Atmospheric Research
		USAP	U.S. Antarctic Program