UNITED STATES

National Science Foundation

Investing in America's Future

FY 2010

Agency Financial Report

THE NSF STATUTORY MISSION

To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense

—From the National Science Foundation Act of 1950 (P.L. 81-507)

THE NSF VISION

Advancing discovery, innovation, and education beyond the frontiers of current knowledge and empowering future generations in science and engineering

—From the National Science Foundation Strategic Plan FY 2006–2011

About the cover:
Gemini South image of NGC 5426-27 (Arp 271) as imaged by the Gemini Multi-Object Spectrograph. The twin galaxies comprising NGC 5426-27 (Arp 271) are not as peaceful as they look. Separated by only 60,000 light years, they are on a collision course and will end up as a single elliptical galaxy. For more information about NGC 5426-72 (Arp 271) see: www.gemini.edu/node/10979. *(Image courtesy of Gemini Observatory.)*

NSF is the federal steward for ground-based astronomy in the United States. Research support covers a broad array of observational, theoretical, and laboratory research aimed at understanding the origins and characteristics of planets, the Sun, other stars, our galaxy, extragalactic objects, and the structure and origin of the Universe.

www.nsf.gov

ABOUT THIS REPORT

For FY 2010, in lieu of a Performance and Accountability Report, the National Science Foundation (NSF) is using an alternative approached as identified in Office of Management and Budget (OMB) Circular A-136, *Financial Reporting Requirements*. NSF is preparing three alternative reports, which provide financial management and program performance information to demonstrate accountability to our stakeholders and the American public. These reports can be found on NSF's website at www.nsf.gov/about/performance.

- This report, the ***Agency Financial Report*** (AFR), focuses on financial management and accountability. It includes the results of NSF's annual financial statement audit, management's assurance statement, the NSF Inspector General's (IG) memorandum on the agency's FY 2011 management challenges, as well as management's report on the progress made on the IG's FY 2010 management challenges. The ***AFR*** also includes a summary of NSF's key performance metrics.

- The **Annual Performance Report** (APR) includes the results of NSF's FY 2010 Government Performance and Results Act (GPRA) performance goals and a discussion of NSF's new performance assessment and evaluation framework. The ***APR*** will be included in NSF's FY 2012 Budget Request, which will be transmitted to Congress on February 7, 2011.

- NSF's ***Performance and Financial Highlights*** report summarizes key information from the ***AFR*** and ***APR.*** It will be available on February 15, 2011.

For copies of these reports, please send a request to Accountability@nsf.gov. We always welcome your suggestions on how we can make these reports more informative.

NSF by the Numbers	
$6.9 billion	*FY 2010 appropriations (does not include special or donated funds)*
2,100	*Colleges, universities, and other institutions receiving NSF funding in FY 2010*
55,600	*Proposals evaluated in FY 2010 through a competitive merit review process*
13,000	*Competitive awards funded in FY 2010*
287,000	*Proposal reviews conducted in FY 2010*
294,000	*Estimated number of people NSF supports directly (researchers, postdoctoral fellows, trainees, teachers, and students)*
42,000	*Students supported by NSF Graduate Research Fellowships since 1952*

NATIONAL SCIENCE FOUNDATION
FY 2010 Agency Financial Report

www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf11003

III. Appendices

A MESSAGE FROM THE DIRECTOR

I am pleased to have this opportunity to present the National Science Foundation's (NSF) *Agency Financial Report* (AFR) for fiscal year (FY) 2010. NSF's mission is to promote and advance progress in science and engineering research and education in the United States. NSF is the only federal agency with responsibility for strengthening the overall health of U.S. science and engineering across all fields. NSF also has responsibility for leading the nation's efforts to achieve excellence in science, technology, engineering, and mathematics education at all levels. Investments in science and technology are investments in America's future. They foster economic growth, create high tech, high wage jobs that allow U.S. workers to lead in the global economy, and improve the quality of life for all Americans.

NSF-supported discoveries have contributed to the nation's knowledge base and provided insight into many of today's complex national and global challenges such as climate change, environmental protection, and homeland security. In many fields, such as computer science and mathematics, NSF is the principal source of federal academic support. As you will learn from this report, more than 2,100 institutions in 50 states, the District of Columbia, and 5 U.S. territories received NSF awards in FY 2010. These awards directly involved an estimated 294,000 people, including senior researchers, graduate and undergraduate students, and K–12 students and teachers.

This report provides an assessment of the agency's detailed financial information and stewardship of taxpayer resources. It includes management's Statement of Assurance and a progress report on how the agency has addressed the NSF Office of Inspector General's FY 2010 management challenges. The performance chapter highlights some key performance metrics available at this time. NSF will report the complete results for its FY 2010 Government Performance and Results Act (GPRA) performance goals in the agency's *Annual Performance Report* (APR) in February 2011, as part of the agency's FY 2012 Budget Request to Congress. The AFR, APR, and a *Performance and Financial Highlights* report, which will be also be available in February, are being prepared in lieu of an agency Performance and Accountability Report in accordance with guidance from the Office of Management and Budget.

A few highlights:

- NSF received an unqualified opinion from an independent audit of its financial statements—its 13th consecutive "clean" opinion. The audit report identified no material weaknesses but repeated a significant deficiency related to the monitoring of cost reimbursement contracts.

- NSF can provide reasonable assurance that the agency is in substantial compliance with the Federal Managers Financial Integrity Act of 1982 and that internal control over financial reporting is operating effectively to produce reliable financial reporting. No material weaknesses were found in the design or operation of the internal controls.

- The number of proposal actions reached an unprecedented 55,562, a 23 percent increase from the prior year. A total of 13,015 competitive new awards were made. The FY 2010 funding rate of 23 percent was a 9 percentage point drop from the 32 percent achieved in FY 2009 that reflected the overall level of investment made possible by the Recovery Act.

- NSF has achieved eight of 11 GPRA goals for which results are available at this time.

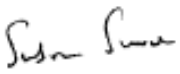
    1) For 75 percent of proposals undergoing competitive merit review, a funding decision was made within 6 months. This exceeded NSF's 70 percent target, despite a significant increase in workload this year. Customer surveys have found that the amount of time it takes to process a proposal is one of the most important issues for the science and engineering research community, so this is an important efficiency goal for the agency.

    2) A total of $138.4 million was invested to leverage and facilitate activities that foster potentially transformative research, exceeding the $94 million target by nearly 50 percent.

    3) NSF did not achieve its goal to provide written context statements to 95 percent of Principal Investigators of awarded and declined proposals, as only 93 percent of reviews included these statements. This performance goal was directed at increasing transparency of the merit review process. A more detailed discussion of these results and others is included in the report.

- The performance data included in this report and in the APR undergoes a verification and validation review by an independent, external management consultant based on guidance from the General Accountability Office. This will be discussed in more detail in the APR.

These challenging times underscore the importance of NSF's commitment to high standards in its programmatic investments and its overall responsibilities for sound stewardship. As Director, I welcome the opportunity to continue NSF's tradition of making investments that will help ensure our nation's prosperity, security, and well being.



Subra Suresh
Director

November 15, 2010

Chapter 1: Management's Discussion and Analysis

Agency Overview

Mission and Vision

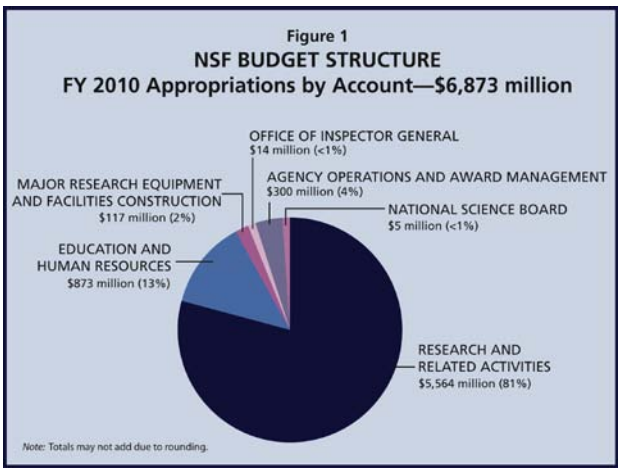
The National Science Foundation (NSF) was established in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense."[1] The first part of this mission statement—to promote the progress of science—describes NSF's overall role in advancing research and education in science and engineering across all fields and disciplines and at all educational levels. The second part of the mission statement—to advance the national health, prosperity, and welfare; and to secure the national defense—underscores NSF's contributions to addressing the nation's most pressing challenges.

NSF supports the basic research and education that enable advances in many areas, including technology-based innovations that spur economic prosperity; understanding, mitigating, and adapting to climate change; developing sustainable approaches to the utilization of energy and natural resources; and transforming undergraduate education for the preparation of tomorrow's leading scientists. NSF integrates research and education to support the development of a world-class scientific and engineering workforce as well as nurture the growth of a scientifically and technologically aware public, one that is able to engage fully in a 21st century life that increasingly relies on technology to meet challenges and grasp opportunities.

NSF's vision, "advancing discovery, innovation, and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering," is achieved through four interrelated strategic outcome goals: Discovery, Learning, Research Infrastructure, and Stewardship.[2]

Achieving the NSF Mission

NSF achieves its mission and vision by making awards and managing portfolios of the highest quality research and education projects that reflect national priorities. NSF is funded primarily through six congressional appropriations, which totaled $6.9 billion in fiscal year (FY) 2010 (Figure 1).[3]



- NSF's largest appropriation is Research and Related Activities which accounted for 81 percent of the agency's FY 2010 funding. This account supports basic research and education activities at the frontiers of science and engineering including high-risk and trans-formative research.
- The Education and Human Resources appropriation supports activities that ensure a diverse, competitive, and globally engaged U.S. science, technology, engineering, and mathematics workforce and a scientifically

[1] The National Science Foundation Act of 1950 (Public Law 81-507).

[2] NSF's Strategic Plan for FY 2006–2011, *Investing in America's Future*, is available at www.nsf.gov/pubs/2006/nsf0648/nsf0648.jsp. NSF plans to issue a new strategic plan in the spring of 2011.

[3] In Figure 1, appropriations of $6,873 million plus $54.0 million transferred to U.S Coast Guard, H1-B Nonimmigrant Petitioner Receipts ($91.2 million) and Donations ($54.5 million) equals $7,072 million as shown in the Statement of Budgetary Resources.

literate citizenry.

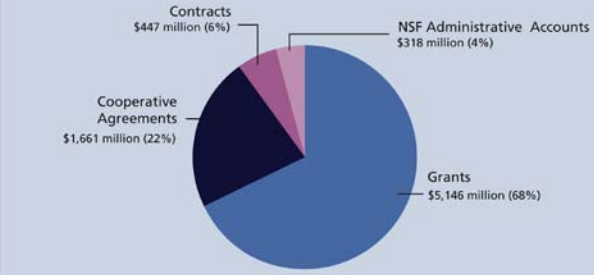
- The Major Research Equipment and Facilities Construction (MREFC) appropriation supports the construction of unique national research platforms and major research equipment that enable cutting-edge research.
- The Agency Operations and Award Management appropriation supports NSF's administrative and management activities.
- Funding for the operation of the Office of Inspector General (OIG) and for the National Science Board (NSB) is provided in two separate appropriations.

In FY 2010, 86 percent of research funding was allocated through competitive merit review.[4] Nearly 46,000 members of the science and engineering community participated in the merit review process as panelists and proposal reviewers.[5]

Ninety-six percent of FY 2010 obligations directly supported programmatic activities; 90 percent of FY 2010 obligations funded projects through grants or cooperative agreements (Figure 2).[6] Grants can be funded either as standard awards, in which funding for the full duration of the project is provided in a single fiscal year, or as continuing awards, in which funding for a multi-year project is provided in increments. Cooperative agreements are used when the project requires substantial agency involvement during the project performance period (e.g., research centers, multi-use facilities). Contracts (procurement instruments) are used to acquire products, services, and studies (e.g., program evaluations) required primarily for NSF or other government use.

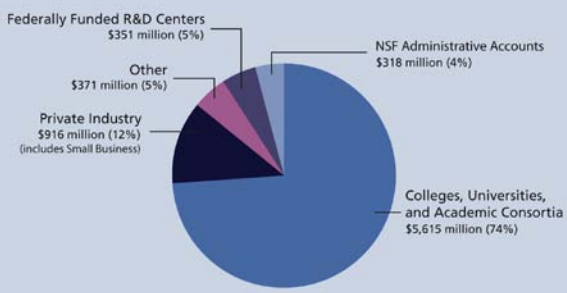
In FY 2010, NSF made awards to over 2,100 institutions in 50 states, the District of Columbia, and 5 U.S. territories. These institutions employ America's leading scientists, engineers, and educators and train the leading-edge innovators of tomorrow. In total, NSF awards directly involved an estimated 294,000 senior researchers, postdoctoral associates, other professionals,

Figure 2
NSF AWARD MECHANISMS
FY 2010 Budget Obligations—$7,572 million



Note: NSF Administrative Accounts include the funding of administrative operations and award management and the activities of the National Science Board and the Office of Inspector General.

Figure 3
INSTITUTIONS FUNDED BY NSF
FY 2010 Budget Obligations—$7,572 million



Notes: NSF Administrative Accounts include the funding of administrative operations and award management and the activities of the National Science Board and the Office of Inspector General. Totals may not add due to rounding.

[4] NSF does not require merit review for certain kinds of proposals, including proposals for international travel grants and some conferences, symposia, and workshops.

[5] For more information about NSF's merit review process, see www.nsf.gov/bfa/dias/policy/meritreview and *Report to the National Science Board on the National Science Foundation's Merit Review Process FY 2009* (NSB-1-0-27) at www.nsf.gov/nsb/topics/MeritReview.jsp.

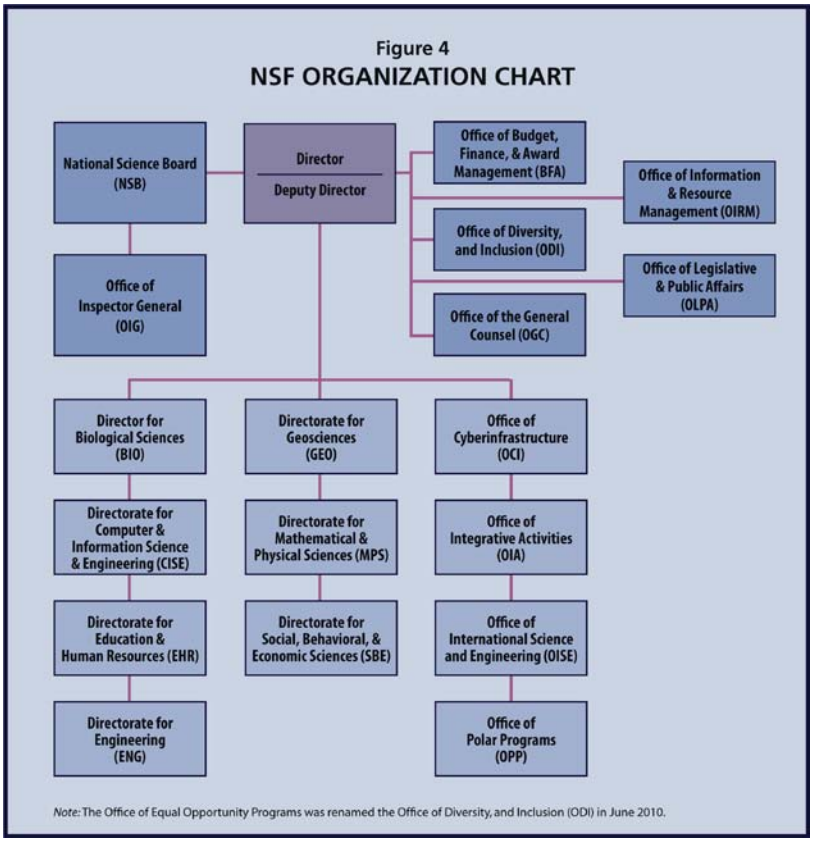
[6] In Figure 2, FY 2010 obligations include regular ($7.0 billion) and Recovery Act funding ($600 million). Total base and Recovery Act obligations of $7.6 billion plus Trust Funds ($43.6 million) and H1-B Nonimmigrant Petitioner Receipts ($96.8 million) equal Direct Obligations Incurred ($7.7 billion) as shown on the Statement of Budgetary Resources.

graduate and undergraduate students, and K–12 students and teachers. Most NSF awards are to academic institutions (Figure 3) including colleges, universities, and academic consortia. Awards are also provided to Federally Funded Research and Development Centers (FFRDCs) and private industry, including small businesses. Other recipients include federal, state, and local governments; nonprofit organizations; and international organizations.[7]

Organizational Structure

NSF is an independent federal agency headed by a Director (www.nsf.gov/od) appointed by the President and confirmed by the U.S. Senate. A 25-member NSB meets five times a year to establish the overall policies of the Foundation (www.nsf.gov/nsb). NSB members—prominent contributors to the science and engineering research and education community—are also appointed by the President with the consent of the Senate. The NSF Director is a member *ex officio* of the Board. Both the Director and the other NSB members serve 6-year terms. The NSF workforce includes 1,400 permanent staff.[8] NSF also regularly recruits visiting scientists, engineers, and educators as rotators who work at NSF for up to four years.[9] The blend of permanent staff and rotators, who infuse new talent and expertise into the agency, is integral to NSF's mission of supporting the entire spectrum of science and engineering research and education at the frontier. As shown in Figure 4, NSF's organizational structure aligns with the major fields of science and engineering (www.nsf.gov/staff/orgchart.jsp). In addition to the agency's headquarters located in Arlington, Virginia, NSF maintains offices in Paris, Tokyo, and Beijing to facilitate its international activities and an office in Christchurch, New Zealand, to support the U.S. Antarctic Program (USAP).

Figure 4
NSF ORGANIZATION CHART



Note: The Office of Equal Opportunity Programs was renamed the Office of Diversity, and Inclusion (ODI) in June 2010.

[7] A small number of awards are for research in collaboration with other countries, which has value to the U.S. scientific enterprise.
[8] Full-time equivalents
[9] As of September 2010, temporary appointments included 165 under the Intergovernmental Personnel Act.

Management Challenges

The NSF OIG identified six issue areas as the most serious management and performance challenges facing the agency in FY 2010 and FY 2011: ensuring proper stewardship of Recovery Act funds,[10] improving grant administration, strengthening contract administration, becoming a model organization for human capital management, encouraging the ethical conduct of research, and effectively managing large facilities and instruments.[11] Management's report on significant activities undertaken in the past year to address these challenges is included as Appendix 3B of this report. The report also discusses planned activities for FY 2011 and beyond. Among activities reported are the following:

- In accordance with requirements of the Recovery Act, NSF established a monitoring program for all ARRA awards. Each quarter, ARRA award recipients report financial and programmatic information on the progress of their grants via www.FederalReporting.gov. NSF assesses this information through its quarterly, multi-phase recipient reporting review process which includes reviewing for omissions (non-reported awards) and/or significant errors, checking for compliance through data matches, sampling review of descriptive fields, and validating against the Federal Financial Report submitted for the comparable quarter.

- To enhance NSF's advanced post-award monitoring effort, the Award Monitoring and Business Assistance Program was updated to integrate the results of the quarterly ARRA reporting requirements. In addition, NSF has refocused its monitoring efforts on organizations identified as needing more intensive business assistance.

- To improve grant administration, NSF's complete suite of Award Terms and Conditions was revised to incorporate new mandates from the Office of Management and Budget (OMB) such as reporting information on first tier-tier sub-awards and required maintenance of valid Central Contractor Registration and Universal Identifier Requirements, among others.

- To strengthen the agency's contract administration, management focused on the USAP contract and worked closely with the Defense Contract Audit Agency to resolve audit-related issues. To reduce use of high risk contracts, NSF issued specific guidance and provided targeted training to assist acquisition personnel in improving requirements development and assessing acquisition risk. NSF has implemented agency-wide acquisition workforce policy that includes agency specific training requirements to facilitate increased use of

Fifth-grade students participate in the Student Teacher Outreach Mentorship Program (STOMP), which enlists undergraduate engineering students to mentor K–12 teachers and students. A core principle behind STOMP is that all elementary school students are capable of learning engineering concepts and that those concepts can be built on throughout the years.

Credit: *Elsa Head, Tufts University*

[10] NSF received $3.0 billion under the American Recovery and Reinvestment Act of 2009 (Recovery Act or ARRA).
[11] OIG's memorandum on FY 2010 management challenges can be found in NSF's *FY 2009 Agency Financial Report* (Appendix 3A) at www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10001. The OIG's memorandum on FY 2011 management challenges can be found in Appendix 3A of this report.

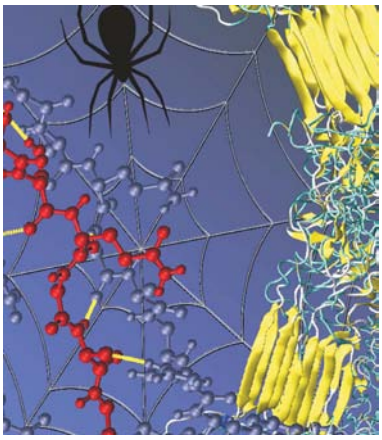
performance based fixed price contracting.

- To enhance human capital management, a work group of Deputy Assistant Directors was convened to identify future resource needs and annual directorate staffing plans have been developed to guide ongoing hiring and succession planning efforts. A Human Resources Policies Work Group was established to develop recommendations related to the role of rotators.
- To encourage the ethical conduct of research, NSF's *Proposal and Awards Policies and Procedures Guide* was updated to provide guidance addressing research integrity. NSF also supported a workshop on international responsible conduct of research in conjunction with the 2nd World Conference on Research Integrity.
- To more effectively manage large facilities and instruments, NSF management collaboratively assisted program staff in the oversight of three new projects started in FY 2010—Advanced Technology Solar Telescope, Alaska Region Research Vessel, and the Ocean Observatories Initiative— and jointly planned and carried out the Final Design Review of the National Ecological Observatory Network. In addition, oversight of planning, construction, and operation of other large facility projects was strengthened. Monthly facilities status reports are being provided to the Budget, Finance, and Award Management Office and feedback is being provided to directorates on annual facility performance goals and metrics.

Future Challenges and Opportunities

Other areas that NSF will focus on in FY 2011 and in the longer term include the following.

Support for Innovative and Potentially Transformative Research



NSF-supported researchers found that hydrogen bonds, which are among the weakest types of chemical bonds, gain strength when confined to spaces on the order of a few nanometers in size. The researchers concluded that silk's strength and ductility—its ability to bend or stretch without breaking—result from this peculiar arrangement of atomic bonds.

Credit: *M.J. Buehler, Massachusetts Institute of Technology*

For 60 years, NSF has played a vital role in innovation by catalyzing the development of fundamental ideas in science and engineering and supporting the people who generate them. At a time when economic and environmental issues are becoming increasingly pressing, NSF is uniquely positioned to stimulate innovation and transformative research that create the new technologies, which, in turn, generate new industries and employment opportunities. Transformative research leads to creation of a new paradigm or field of science, engineering, or education, which can then result in new knowledge and breakthrough solutions to some of the nation's most critical problems. Since this is a multi-year process, recognizing which NSF investments were transformative can only be done retrospectively and in the long term, well after the investment has been made. NSF strives to continue to enhance its ability to identify and support research that could potentially be transformative or could lead to innovation.

Performance and Program Evaluation

NSF is in the process of updating its performance assessment framework. A number of NSF-wide activities that are currently underway will continue to be priorities in the near term and longer: completion of a new strategic plan; continuation of progress towards the High Priority Goal to develop evaluation and assessment systems for six major science, technology, engineering,

and mathematics (STEM) workforce development programs;[12] and planning for an expanded NSF-wide assessment and evaluation capacity. NSF will also continue efforts to develop decision-supporting metrics and rigorous evaluation plans for programs in the Learning portfolio and enhance its capacity for program evaluation through a new evaluation initiative. NSF's ongoing participation and support of the STAR METRICS (Science and Technology for America's Reinvestment: Measuring the Effect of Research on Innovation, Competiveness, and Science) initiative will help the federal government document the value of its investments in research and development to a degree not previously possible. The goal of the STAR METRICS project, which is a partnership between science agencies and research institutions, is to develop a data-driven analytical capability for assessing the impacts of federal investments in science and engineering research and education.[13]

Open Government Directive

In FY 2010, OMB issued the Open Government Directive, which directed executive departments and agencies to take specific actions to implement the principles of transparency, participation, and collaboration. NSF has designated its Chief Technology Officer as the agency's high-level senior official accountable for open government. NSF published the *NSF Open Government Directive Plan* in April 2010, and a subsequent revision in September 2010, in response to comments from various stakeholders and to provide updated information. The plan was produced by the NSF Open Government Working Group, which has key responsibility for identifying high-value datasets that are a key component of the open government plan. NSF has a history of providing open access to agency information. NSF's website already provides access to a wide variety of agency information, including NSB meeting announcements and minutes; funding trends data; budget information; award and funding information; news releases and media advisories; the NSF Multimedia Gallery, which provides visual media for educational and informational use; and much more. In FY 2011, NSF will continue implementing its plan. A key challenge is determining which of the currently available data are of sufficiently high value to convert to the open formats specified in the Open Government Directive.

Federal Funding Accountability and Transparency Act Sub-award Reporting

The Federal Funding Accountability and Transparency Act of 2006 (Transparency Act) and the Recovery Act created a renewed emphasis on transparency, open access, and data quality. The public has enhanced access to agency information from the added transparency, and it has come at the cost of an increased reporting burden on awardees and additional NSF staff workload to review and disseminate data on a more frequent basis. In FY 2011, NSF, along with other federal agencies, will begin requiring prime grant and contract awardees to report the sub-awards they make using federal funds, in order to comply with one of the central requirements of the Transparency Act.

Future NSF

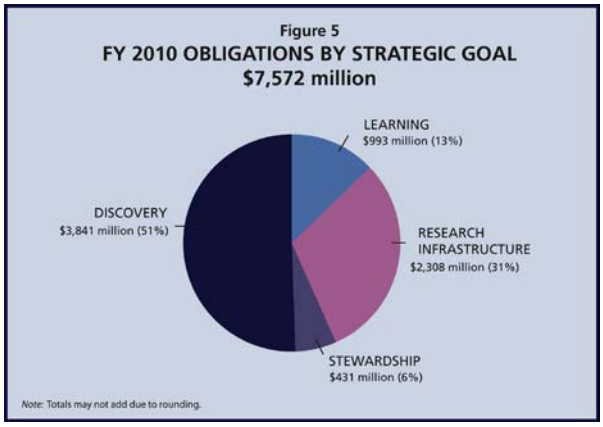
NSF's current lease for the headquarters facility expires in December 2013. Through the Future NSF Headquarters Project, extensive studies have been conducted to determine approaches through which the agency will secure a new lease and occupy more collaborative, efficient, and sustainable space for the next 15 to 20 years. Congressional authorization and competitive lease procurement for NSF's next generation headquarters will be the primary challenges for FY 2011. The anticipated schedule for a new lease award is early FY 2012 with the goal of completing the acquisition of NSF's future space during FY 2014.

[12] For information on NSF's High Priority Goal, see www.performance.gov.
[13] For more information about STAR METRICS, see www.starmetrics.nih.gov.

Performance Goals and Results

In FY 2010, NSF was guided by *Investing in America's Future*, the agency's FY 2006–2011 strategic plan.[14] The FY 2006–2011 strategic plan established four long-term strategic outcome goals for the agency's activities and performance: Discovery, Learning, Research Infrastructure, and Stewardship. Figure 5 depicts NSF's FY 2010 obligations by each of these strategic goals.

- **Discovery**: Foster research that will advance the frontiers of knowledge, emphasizing areas of greatest opportunity and potential benefit, and establishing the nation as a global leader in fundamental and transformational science and engineering.
- **Learning:** Cultivate a world-class, broadly inclusive science and engineering workforce and expand the science literacy of all citizens.
- **Research Infrastructure***:* Build the nation's research capacity through critical investments in advanced instrumentation, facilities, cyberinfrastructure, and experimental tools.
- **Stewardship:** Support excellence in science and engineering research and education through a capable and responsive organization.



In FY 2009, NSF began the process of developing a new strategic plan. The draft plan, *Empowering the Nation Through Discovery and Innovation: NSF Strategic Plan for Fiscal Years (FY) 2010–2015*, will be completed by the spring of 2011. In FY 2010, to meet the assessment and reporting requirements established by the Government Performance and Results Act (GPRA), NSF adopted a streamlined performance assessment framework. In response to recommendations from stakeholders,[15] and in anticipation of a changing strategic framework, NSF also began to pilot and review new approaches to the assessment and evaluation of programs.

All FY 2010 performance results, including the Recovery Act performance results reported by NSF, are verified and validated by an independent external management consultant based on guidance from the General Accountability Office. NSF's FY 2010 Annual Performance Report (APR) will provide a discussion of all the agency's performance measures and a more detailed discussion of the agency's new performance assessment framework. It will also include descriptions of the metrics, methodologies, and results; a list of relevant external reviews; information about NSF's GPRA verification and validation review; and additional performance information.[16]

Strategic Outcome Goals

In FY 2010, NSF monitored 13 key performance goals. Results for 10 goals are available at this time. As shown in Figure 6 on the following page, to date NSF has met or exceeded targets for eight performance goals.

[14] www.nsf.gov/pubs/2006/nsf0648/nsf0648.jsp.
[15] See the 2009 Report of the Advisory Committee for GPRA Performance Assessment, which may be found at www.nsf.gov/pubs/2009/nsf09068/nsf09068.pdf.
[16] NSF's FY 2010 APR will be included in the agency's FY 2012 Budget Request to Congress, which will be available on February 7, 2011, at www.nsf.gov/about/performance.

Figure 6. Strategic Outcome Goal Performance Dashboard

	Performance Measure		2008	2009	2010	2010 Target	Result
Discovery	Percent of proposals with a time to decision within 6 months		78%	89%*	75%	70%	✓
	Research and Related Activities directorates will invest a minimum of $2 million per research division to leverage and facilitate activities that foster potentially transformative research		N/A	N/A	$138.4 million	$94.0 million	✓
Learning	Percent of NSF Learning portfolio with established metrics		N/A	80%	100%	100%	✓
Research Infrastructure	Percent of MREFC facilities under construction with negative cost and schedule variances at or below 10%		80%	100%	TBD	100%	TBD
	Percent of facilities in the operational phase with less than 10% lost operating time		100%	100%	100%	90%	✓
Stewardship	Conduct a Business System Review once per 5-year award cycle for all institutions hosting NSF-supported large facilities**		N/A	3	4	3	✓
	Percent of reviewed proposals with a written statement describing review process and context of the decision		95%	96%	93%	95%	✗
	Analyze Committees of Visitors reports to identify issues of quality and transparency of the merit review process		N/A	Analysis begun	Completed report	Completed report	✓
	Appropriately apply risk assessment strategy to ensure adequate post-award financial and administrative monitoring of riskiest awards	Site visits	100%	100%	80%	95% of 30	✗
		Desk reviews	100%	100%	146%	95% of 73	✓
		FFR transaction testing	100%	100%	100%	100%	✓

N/A: Not applicable because the performance measure was established after that fiscal year.
TBD: To be determined. Results are not available at this time; they will be reported in the FY 2010 APR.
MREFC: Major Research Equipment and Facilities Construction
FFR: Federal Financial Report
** The time-to-decision goal was in effect only for the first quarter of FY 2009. NSF suspended this goal to expedite processing time of the additional proposals received as a result of the Recovery Act.*
*** A Business System Review is an award monitoring activity that assesses an institution's capacity to manage a facility in compliance with NSF expectations and federal regulations.*

- NSF did not achieve its goal of providing written context statements to 95 percent of Principal Investigators (PIs) of awarded and declined proposals undergoing the merit review process. Context statements increase the transparency of the review process by providing PIs who submit proposals with information describing the process by which the proposal was reviewed and the context of the decision.

- NSF did not achieve its goal of conducting 95 percent of planned site visits to NSF awardee institutions. NSF's risk-based advanced monitoring activities, including site visits and desk reviews, focus on developing a reasonable assurance that institutions managing the higher-risk awards possess adequate policies, processes, and systems to properly manage federal awards. NSF originally planned to conduct 30 site visits. In FY 2010, NSF award monitoring personnel were temporarily redeployed to support a high-priority, high-dollar procurement. NSF readjusted its award monitoring plan by reducing the number of planned visits from 30 to 24, deferring six site visits to institutions with the lowest risk (as determined using NSF's risk assessment methodology). The six institutions received

advanced monitoring through increased application of the desk review process and have been assigned site visit priority as part of the FY 2011 risk assessment.

- NSF exceeded its dwell time goal of making 70 percent of proposal decisions within 6 months despite a significant increase in workload. The number of competitive proposal actions increased 23 percent in FY 2010, while the workforce increased only 3 percent.
- NSF also exceeded the goals that addressed fostering potentially transformative research, facilities operations, business system reviews, and post-award monitoring desk reviews.
- NSF's two performance metrics for NSF's Recovery Act program will be reported in the APR. Recipient reports are processed during the period after the end of the quarter. For the quarters ending September 30, 2009, December 31, 2009, March 31, 2010, and June 30, 2010: (1) The quarterly average recipient reporting rate was 99.2 percent, exceeding the agency target of 98 percent. (2) The percent of Recovery Act awards with uncorrected significant recipient reporting errors was 0.02 percent which is considerably below the 1.0 percent target.

Recovery Act Performance Results

In February 2009, NSF received $3.0 billion under the American Recovery and Reinvestment Act of 2009 (Recovery Act or ARRA). The Recovery Act included long-term investments intended "to increase economic efficiency by spurring technological advances in science and health"[17] and to generate new discoveries and breakthroughs. In FY 2009, NSF obligated 80 percent of its Recovery Act funds ($2.4 billion). In FY 2010, NSF obligated the remaining 20 percent, nearly $600 million. By the end of FY 2010, outlays of NSF's Recovery Act funds totaled $598 million. The bulk of Recovery Act funds supported the Research and Related Activities program, which made over 5,000 competitive core research, facilities, and infrastructure awards to over 8,000 principal investigators, including 2,800 new investigators. Figure 7 on the following page shows selected program performance measures for NSF's Recovery Act programs. NSF has met or exceeded cumulative program targets for seven of eight goals for which results are available at this time.[18]

A key focus in FY 2010 was monitoring awardee performance including compliance with requirements for quarterly recipient reporting; improving the quality of data reported by those award recipients; and increasing awardee communication, outreach, and oversight to ensure the timely expenditure of award funds. Each quarter, ARRA award recipients report financial and programmatic information via www.FederalReporting.gov. NSF implemented a quarterly, multi-phase recipient reporting review process to assess the data reported. This included automated reviews against NSF data and validation against the Federal Financial Report. NSF Program Officers reviewed samples of key data that could not be automatically reviewed, such as the project description. This extensive data quality review process allowed NSF to assess the accuracy of the data reported by awardees that is publicly available through www.recovery.gov while minimizing the staff time necessary to review the nearly 5,000 reports submitted to NSF each quarter.

Additionally, NSF implemented a coordinated communications plan to remind awardees of their reporting obligations at defined stages during the reporting cycle and to notify them of data quality issues and reporting errors. NSF achieved excellent results in its data quality program and is a government leader with a high degree of compliance among NSF awardees and a low error rate. NSF also designed and implemented a plan to address ARRA outlays in light of the economic spending goals of the statue. Because outlay patterns at NSF are sensitive to the academic year, the agency instituted a monthly

[17] The American Recovery and Reinvestment Act of 2009 is available at www.gpo.gov/fdsys/pkg/PLAW-111publ5/content-detail.html.

[18] The complete list of measures is available at www.recovery.gov/Transparency/agency/Recovery%20Plans/NSF%20Recovery%20Act%20Plan%20-%20June%202010.pdf.

process to identify and monitor ARRA awards with no allowable expenditures in the first 12 months after the award date. These awards risked termination for noncompliance with NSF's ARRA award terms and conditions that had been added specifically to implement ARRA's key purposes. These included the requirement to commence work on projects expeditiously, incurring allowable expenditures within a reasonable timeframe. NSF's efforts resulted in no award being terminated for these reasons.

In FY 2011, NSF will continue to refine its recipient report data quality review process and respond to new guidance and recommendations from OMB, the Recovery Accountability and Transparency Board, and the NSF OIG. The agency will also continue its enhanced outreach and communication with ARRA awardees and its expenditure rate monitoring to ensure that the purposes of ARRA are fulfilled.

Figure 7. Recovery Act Performance Dashboard

Program/Subprogram		Measure	2009		2010		Overall Result
			Target*	Result*	Target*	Result*	
Research and Related Activities	Competitive Awards	Number of awards	4,000	4,599	-	5,027	✓
		Number of ARI-R2 and MRI-R2 awards	-	-	500	398	✗
	Principal Investigators (PIs)	Total number of PIs	6,400	6,762	-	8,030	✓
		Number of new PIs	2,400	2,352	-	2,839	✓
Education and Human Resources	Robert Noyce Teacher Scholarship Program	Number of new awards	67	67	-	-	✓
		New pre-service teachers and teacher participants	30	TBD	370	TBD	TBD
		New teachers teaching in high-need districts	0	TBD	28	TBD	TBD
	Math and Science Partnership (MSP) Program	Number of new awards	9	9	-	-	✓
		Number of MSP teacher leader/master teacher participants	15	TBD	133	TBD	TBD
		Number of post-baccalaureate credentials or master's degree recipients	13	TBD	119	TBD	TBD
	Science Masters Program	Number of new awards	New program in FY 2010		21	21	✓
		Number of students supported			80	100	✓
		Number of students earning science master's degrees			N/A	-	N/A
Major Research Equipment and Facilities Construction	Alaska Region Research Vessel (ARRV)	Variance from target cost and schedule: <10% behind schedule <10% above cost	> -10%	N/S	>-10%	TBD	TBD
	Advanced Technology Solar Telescope (ATST)		> -10%	N/S	>-10%	TBD	TBD
	Ocean Observatories Initiative (OOI)		> -10%	N/S	>-10%	TBD	TBD

** Targets and results for the Research and Related Activities program are cumulative. All other targets and results are annual values.*
N/A: *Not applicable*
N/S: *Not significant. Variance data from projects under 10 percent complete are not considered significant.*
TBD: *To be determined. Results are not available at this time; they will be reported in the FY 2010 APR.*
ARI-R²: Academic Research Infrastructure-Recovery and Reinvestment solicitation
MRI-R²: Major Research Instrumentation-Recovery and Reinvestment solicitation

As shown in Figure 7:

- For the Research and Related Activities Program, NSF did not achieve its goal to make 500 awards under the new Major Research Instrumentation–Recovery and Reinvestment (MRI–R2) and Academic Research Infrastructure–Recovery and Reinvestment (ARI-R^2) solicitations. The goal was based on an extrapolation of FY 2008 MRI program data on requested and awarded amounts. The average request and award under the MRI–R^2 competition were over 50 percent higher than projected, so fewer awards could be made.
- For the Education and Human Resources Program, NSF achieved its target of 21 awards in the Science Masters Program competition, and exceeded its goal for number of students supported. Results for the Robert Noyce Teacher Scholarship Program and the Math and Science Partnership Program will be reported in the APR as they are not available at this time.
- The results for the Major Research Equipment and Facilities Construction (MREFC) facilities goals will also be reported in the APR.

Workload and Management Trends

NSF continuously monitors key portfolio, workload, and financial measures to understand short and long-term trends to help inform management decisions (Figure 8).

Figure 8. Workload and Management Trends

	Measure	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Percent Change (FY 2010/ FY 2009)	Annual Rate of Change (FY 2010/ FY 2006)
Portfolio	Competitive proposal actions	42,050	44,106	43,907	45,218	55,562	23%	8%
	Competitive new awards	10,318	11,354	11,024	14,642	13,015	-11%	7%
	Average annual award size (competitive awards)	$155,526	$157,943	$167,300	$172,569	$189,338	10%	5%
	Funding rate	25%	26%	25%	32%	23%	-28%	-2%
Workload	Number of employees (Full-time equivalents, usage)	1,273	1,310	1,339	1,386	1,424	3%	3%
	Number of active awards*	43,959	47,778	48,799	52,858	55,449	5%	7%
	Proposal reviews conducted	239,149	248,335	248,772	241,712	287,017	19%	5%
Financial	Cash-on-hand** (in millions)	$36	$33	$26	$26	$19	-27%	-12%
	Number of grant payments	19,714	19,074	19,481	25,723	22,782	-11%	4%
	FCTR/FFRs submitted	99.9%	99.7%	99.8%	99.6%	99.8%	<1%	<1%

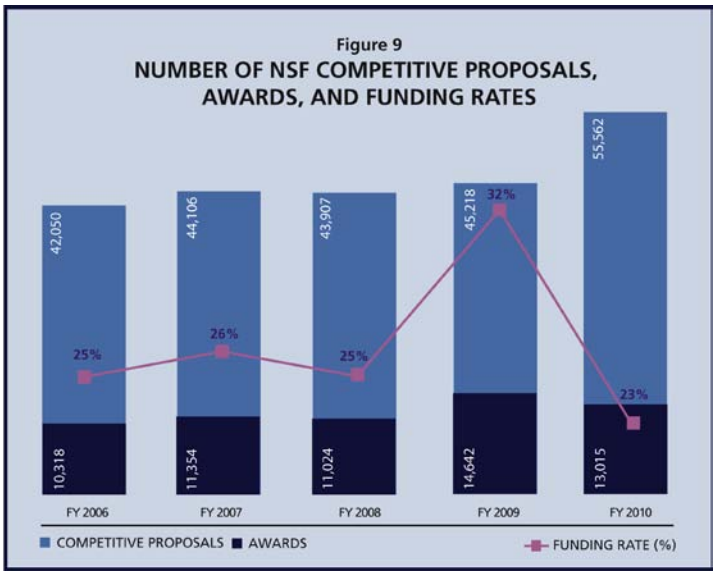
** Active awards include all active awards regardless of whether they received funding during the fiscal year.*

*** FY 2010 is through the third quarter.*

- The number of competitive proposal actions reached an historical high of 55,562—a 23 percent increase over the prior year. This unprecedented annual increase is nearly quadruple the 6 percent average annual increase from FY 2001 to FY 2009. The 19 percent increase in the number of proposal reviews in FY 2010 reflects this increase in competitive proposal actions.

- The number of competitive new awards decreased 11 percent—from 14,642 in FY 2009 to 13,015 in FY 2010. The Recovery Act allowed NSF to fund a higher percentage of proposals in FY 2009.
- The FY 2010 funding rate of 23 percent is a 28 percent decrease from the prior year—a 9 percentage point drop from the FY 2009 funding rate of 32 percent that reflected the overall level of investment made possible by the Recovery Act. As shown in Figure 9, the FY 2010 funding rate is slightly below pre-Recovery Act funding rates of 26 and 25 percents in fiscal years 2007 and 2008, respectively.

Figure 9
NUMBER OF NSF COMPETITIVE PROPOSALS, AWARDS, AND FUNDING RATES



- The average annual award size increased 10 percent in FY 2010, to $189,338. This compares to a 4 percent average annual increase in award size from FY 2006 to FY 2009.
- NSF's workforce in terms of full time equivalents (FTEs) increased three percent over FY 2009 to 1,424, in line with the average annual increase since FY 2006. For the same period, workload as measured by proposal reviews conducted and active awards increased 19 percent and 5 percent, respectively.
- Grantees are required to report the status of funds received from NSF on a quarterly basis through the submission of a Federal Financial Report (FFR). NSF has increased its emphasis for collecting the reports following the change in the FFR due date from 40 to 30 days after the end of the quarter. For FY 2010, 99.8 percent (6,739 of 6,751) of the FFRs due were submitted by the end of the reporting period. High FFR submission levels are directly related to the overall accuracy and completeness of NSF grant expenses as reported on NSF financial statements.
- NSF has increased emphasis on grantee cash monitoring in order to improve cash management by grantees, resulting in less governmental risk and improved cash flow for NSF. Unexpended federal cash held by grantees has decreased to $19 million in FY 2010 from a quarterly average of $36 million in FY 2006. This decrease has been achieved at the same time NSF payments to grantees have increased by 4 percent annually over the last four years.

  In FY 2010, NSF conducted its annual statistical review of FFR expenditures as reported by grant recipients and a separate statistical review of expenditures reported for Recovery Act awards. Consistent with prior year results, the error rate (less than 1/10 of 1 percent) noted in the review of all awards by an independent consultant was well below the materiality levels as defined in OMB standards. Of particular note was that no reporting errors were discovered during the review of Recovery Act awards. NSF intends to continue its grant expenditure sampling process as part of its integrated and comprehensive grant financial monitoring program strategy.
- For FY 2010, the number of NSF grant payments continued to reflect an increase in activity levels compared to FY 2008 and prior fiscal years, primarily due to the increased number of Recovery Act awards. This increased activity level should gradually diminish throughout FY 2011 and beyond as NSF begins the closeout process for these awards.

Financial Discussion and Analysis

The emphasis on transparency, detail, and open access to data established by the Transparency Act and the Recovery Act is becoming the new standard and an ongoing challenge for financial management at NSF. The federal environment continues to change at a rapid pace in the areas of financial reporting, information technology, and risk management. In meeting these challenges, NSF acted to support its customer and stakeholders while maintaining the highest level of business services. NSF realizes that with difficult challenges also come significant opportunities to deliver better, more useful information to decisionmakers and to citizens.

NSF has a fiduciary and stewardship responsibility to efficiently and effectively manage its federal funds and to comply with federal guidance on financial management. As part of this responsibility, the agency prepares annual financial statements in conformity with generally accepted accounting principles (GAAP) for U.S. federal government entities. The financial statements present NSF's detailed financial information relative to its mission and the stewardship of those resources entrusted to the agency. It also provides readers with knowledge of the resources that NSF has available for use, cost of programs, and the status of resources at the end of the fiscal year.

NSF subjects its financial statements to an independent audit to ensure their integrity and reliability in assessing performance. For FY 2010, NSF received its thirteenth consecutive unqualified audit opinion. The audit report noted no material weaknesses. The report repeated the prior year significant deficiency related to the monitoring of cost reimbursement contracts although noted that the agency had made improvements in the last year. NSF will prioritize its resources in an effort to continue to make progress in contracts monitoring and work with the NSF Office of Inspector General to develop an action plan that will enable the agency to resolve the deficiency.

Understanding the Financial Statements

NSF's FY 2010 financial statements and notes are presented in accordance with OMB Circular No. A-136, *Financial Reporting Requirements.* NSF's current year financial statements and notes are presented in a comparative format. The Stewardship Investment schedule presents information over the last five years. Figure 10 summarizes the significant changes in NSF's financial position in FY 2010.

Figure 10. Significant Changes in NSF's Financial Position in FY 2010 *(dollars in thousands)*

Net Financial Condition	FY 2010	FY 2009	Increase/ (Decrease)	% Change
Assets	$12,804,423	$12,627,129	$177,294	1.4%
Liabilities	$596,010	$521,544	$74,466	14.3%
Net Position	$12,208,413	$12,105,585	$102,828	0.8%
Net Cost	$6,895,106	$6,002,380	$892,726	14.9%

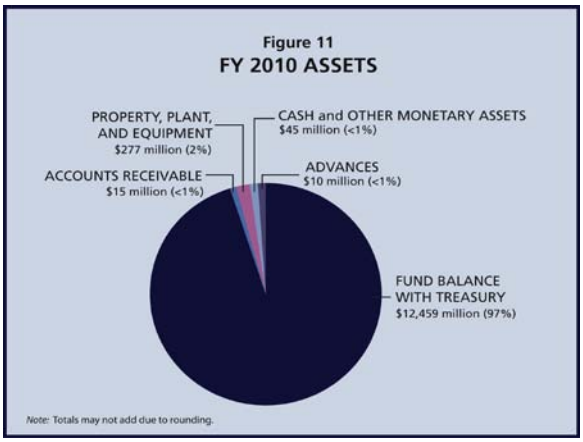
Balance Sheet

The Balance Sheet presents the total amounts available for use by NSF (assets) against the amounts owed (liabilities) and amounts that comprise the difference (net position). NSF's total assets are largely composed of *Fund Balance with Treasury*. A significant balance also exists in the *General Property, Plant and Equipment (PP&E)* account.

In FY 2010, *Total Assets* (Figure 11 on the following page) increased 1.4 percent over FY 2009 assets. The bulk of the increase occurred in the *Fund Balance with Treasury* account, which grew by $225.6 million in FY 2010. *Fund Balance with Treasury* is funding available from which NSF is authorized to

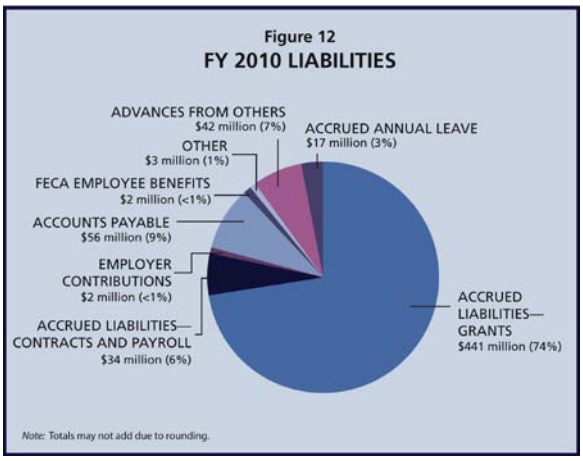
make expenditures and pay amounts due through the disbursement authority of the Department of Treasury. It is increased through appropriations and collections and decreased by expenditures and rescissions. The FY 2010 increase is attributed to the Consolidated Appropriations Act, 2010 under Public Law 111-117 which provided funding for each of NSF's appropriations.

NSF's *Total Liabilities* increased by 14.3 percent in FY 2010. NSF's largest liability account is *Accrued Liabilities-Grants* (Figure 12). This account represents amounts owed to NSF grantees for expenses incurred but not submitted to NSF for reimbursement as of the date of the financial report. The increase in *Accrued Liabilities–Grants* is largely attributed to a substantial increase in ARRA-funded grant activity.

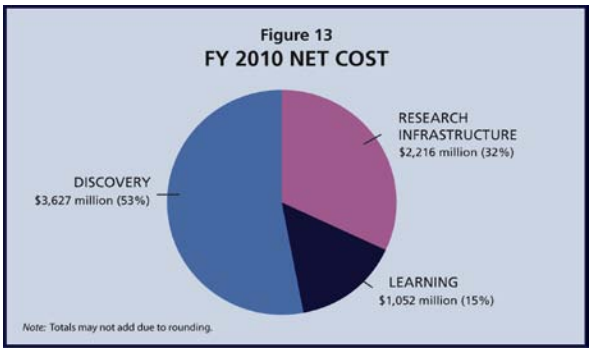


Statement of Net Cost

This statement presents the annual cost of operating NSF programs. The net cost of each specific NSF program operation equals the program's gross cost less any offsetting revenue. *Intragovernmental Earned Revenues* are recognized when related program or administrative expenses are incurred. Earned revenue is deducted from the full cost of the programs to arrive at the *Net Cost of Operation*.



Approximately 96 percent of all current year NSF costs incurred were directly related to the support of the Discovery, Learning, and Research Infrastructure strategic goals. Additional costs were incurred for indirect general operation activities (e.g., salaries, training, and activities related to the advancement of NSF information systems technology) and activities of the NSB and the OIG. These costs were allocated to the Discovery, Learning, and Research Infrastructure strategic goals and account for 4 percent of the total current year Net Cost of Operations (Figure 13). These administrative and management activities are the focus of the agency's Stewardship strategic goal.



Statement of Changes in Net Position

The Statement of Changes in Net Position presents the agency's cumulative net results of operation and unexpended appropriations for the fiscal year. NSF's Net Position increased by $102.8 million, or 0.8 percent, in FY 2010. The slight increase is attributed to *Total Unexpended Appropriations*, which reflects the cumulative amount of Unexpended Appropriations as of September 30, 2010.

Statement of Budgetary Resources

This statement provides information on how budgetary resources were made available to NSF for the year and the status of those budgetary resources at year-end. For FY 2010, Total Budgetary Resources

decreased by $2.0 billion due to the Recovery Act funding appropriated in the prior fiscal year. New *Budget Authority-Appropriation* for the Research and Related Activities, Education and Human Resources, and Major Research Equipment and Facilities Construction accounts were $5,617.9 million, $872.8 million, and $117.3 million, respectively. The combined new *Budget Authority–Appropriation* in FY 2010 for the NSB, OIG, and Agency Operations and Award Management accounts totaled $318.5 million. NSF also received funding via warrant from the special earmarked H-1B receipt account in the amount of $91.2 million and via donations from foreign governments, private companies, academic institutions, nonprofit foundations, and individuals in the amount of $54.5 million.

Stewardship Investments

NSF-funded investments yield long-term benefits to the general public. NSF investments in research and education produce quantifiable outputs, including the number of awards made and the number of researchers, students, and teachers supported or involved in the pursuit of science and engineering research and education. The FY 2010 increase in Research and Human Capital Activities is directly related to the outlay of ARRA funding received in FY 2009 and the Consolidated Appropriation Act received in FY 2010.

Limitations of the Financial Statements

In accordance with the guidance provided in OMB Circular No. A-136, NSF discloses the following limitations of the agency's FY 2010 financial statements, which appear in Chapter II of this report: The principal financial statements have been prepared to report the financial position and results of operations of NSF, pursuant to the requirements of 31 U.S.C. 3515(b). While the statements have been prepared from NSF books and records in accordance with GAAP for federal entities and the format prescribed by OMB, the statements are in addition to the financial reports used to monitor and control budgetary resources, which are prepared from the same books and records. The statements should be read with the realization that they are for a component of the U.S. Government, a sovereign entity.

Other Financial Reporting Information

Debt Collection Improvement Act of 1996

Net Accounts Receivable totaled $14.5 million at September 30, 2010. Of that amount, $14.4 million is due from other federal agencies. The remaining $125,800 is due from the public. NSF fully participates in the Department of the Treasury Cross-Servicing Program. In accordance with the Debt Collection Improvement Act, this program allows NSF to refer debts that are delinquent more than 180 days to the Department of the Treasury for appropriate action to collect those accounts. In FY 2004, OMB issued M-04-10, *Memorandum on Debt Collection Improvement Act Requirements,* which reminded agencies of their responsibility to comply with the policies for writing-off and closing-out debt. In accordance with this guidance, NSF has now incorporated the policy of writing-off delinquent debt more than two years old. Additionally, NSF seeks Department of Justice concurrence for action items over $100,000.

Cash Management Improvement Act (CMIA)

In FY 2010, NSF had no awards covered under CMIA Treasury–State Agreements. NSF's FastLane system with grantee draws of cash makes the timeliness of payments issue under the Act essentially not applicable to the agency. No interest payments were made in FY 2010.

Systems, Controls, and Legal Compliance

Management Assurances

The Federal Managers Financial Integrity Act of 1982 (Integrity Act or FMFIA) requires that agencies establish internal controls and financial systems that provide reasonable assurance that the integrity of federal programs and operations is protected. It requires that the head of the agency provide an annual statement of assurance that obligations and costs comply with applicable laws and regulations; federal assets are safeguarded against fraud, waste, and mismanagement; transactions are accounted for and properly recorded; and financial management systems conform to standards, principles, and other requirements to ensure that federal managers have timely, relevant, and consistent financial information for decision-making purposes. The NSF FY 2010 Statement of Assurance appears on the following page. A summary of the results of NSF's financial statement audit and internal control review is available in Appendix 1.

The Federal Financial Management Improvement Act of 1996 (FFMIA) requires that agencies implement and maintain financial management systems that comply substantially with the federal financial management system requirements, applicable federal accounting standards, and the U.S. Government Standard General Ledger (SGL) at the transaction level. The agency head is to make an annual determination whether the financial systems substantially comply with FFMIA. The NSF financial systems substantially comply with federal financial management systems requirements, federal accounting standards, and the SGL at the transaction level. To meet this requirement, we performed tests of compliance with FFMIA Section 803(a) requirements.

Highlights from NSF's Internal Control Quality Assurance Program

NSF addresses internal control issues through its Internal Controls Quality Assurance Program, the functional leadership for which is provided by the Internal Controls Quality Assurance Team (Team). The Internal Control Assessment is a review of the design and operating effectiveness of key internal control activities for NSF's business processes and for safeguarding of assets and compliance with applicable laws and regulations. The Team follows a risk-based approach in determining the key controls to be assessed during the current year, with some controls assessed on a 3-year schedule.

In the past year, the Team has taken significant steps to strengthen NSF's Internal Control Quality Assurance Program, focusing on the remediation of identified deficiencies by the external auditors, the OIG, internal audits, and the information technology review. NSF developed a remediation plan to correct the significant deficiency relating to the monitoring of cost reimbursement contracts cited in the FY 2009 financial statement audit report. For each OIG recommendation, the remediation plan identifies specific remedies, target dates, responsible officials, and resource estimates required for completion.

National Science Foundation
FY 2010 Statement of Assurance

The National Science Foundation (NSF) management is responsible for establishing and maintaining effective internal control and a financial management system that meets the objectives of the Federal Managers' Financial Integrity Act of 1982 (Integrity Act) and the Office of Management and Budget (OMB) Circular A-123, *Management's Responsibility for Internal Control*.

NSF managers continually monitor and improve the effectiveness of management controls associated with their programs. This continuous monitoring and other periodic evaluations provide the basis for the annual assessment and report on management's controls, as required by the Integrity Act. Based on the results of these evaluations, NSF provides reasonable assurance that as of September 30, 2010, its internal controls over programs and operations were operating effectively to ensure compliance with applicable laws and regulations. No material weaknesses were identified in the design or operation of internal controls under Section 2 of the Integrity Act and no system non-conformances were identified under Section 4 of the Integrity Act.

In addition, NSF is leveraging the established OMB Circular A-123 and the Integrity Act assessment methodologies to assist in assessing the applicable entity-wide controls, documenting the applicable processes, and identifying and testing the key controls applicable to the American Recovery and Reinvestment Act funding and the Open Government Act.

In accordance with Appendix A of OMB Circular A-123, NSF conducted an assessment of the effectiveness of internal control over financial reporting, which included the safeguarding of assets and compliance with applicable laws and regulations. Based on the results of this assessment for the period ending June 30, 2010, NSF provides reasonable assurance that internal control over financial reporting was operating effectively and no material weaknesses were identified in the design or operation of the internal controls.

For fiscal year 2010, NSF is providing an unqualified statement of assurance that its internal controls and financial management systems meet the objectives of the Integrity Act.

Subra Suresh
Director

November 15, 2010

Internal Control Assessment (OMB Circular A-123 Review)

The Accountability and Performance Integration Council (APIC) Internal Control Working Group (ICWG) assessed and evaluated NSF's compliance with OMB Circular A-123 requirements as of June 30, 2010, and determined the deficiencies identified were below the material weakness level.[19] The ICWG considered the nature of each deficiency, the existence of a compensating control, the dollar value of transactions potentially affected by the deficiency, the level of risk, and the likelihood that an error may not be prevented or detected. The ICWG recommended corrective actions for the deficiencies.

"Swarms" of autonomous underwater explorers (AUEs) will provide new information about the oceans. These robotic ocean explorers will be designed and deployed to provide new knowledge about marine protected areas, harmful algal blooms, oil spills, and key ocean processes.

Credit: *Scripps Institution of Oceanography*

OMB Circular A-127 Review

In accordance with the requirements of FFMIA, management is responsible for reporting on its implementation and maintenance of financial management systems that substantially comply with federal financial management systems requirements, applicable federal accounting standards, and the U.S. Government SGL at the transaction level. NSF conducted a review under OMB Circular A-127 (Revised January 9, 2009, effective as of October 1, 2009) to determine the level of risk by applying the FFMIA risk model, which ranks risk from nominal to significant. The risk assessment determined NSF's financial system is a moderate risk because 1) it is not certified by the Financial System Integration Office and 2) because of significant manual year-end adjustments both in number of entries and value of transactions. Despite the risks, NSF's financial statements are prepared with information generated by the core financial system consistent with OMB Circular A-136, *Financial Reporting Requirements*, and the agency's financial systems provide timely and reliable financial information.

U.S. Antarctic Program Property

NSF had an independent consultant develop a cost-basis model for real property construction costs for the U.S. Antarctic Program (USAP). The analysis included both real property and Construction-In-Progress (CIP) assets that included buildings and land improvements. NSF conducted a site visit to the South Pole and McMurdo Stations in Antarctica to analyze the real property valuation assessment by comparing physical characteristics against the architectural analysis resulting from the cost-basis modeling. The results of the analysis provided NSF with an estimate and substantiation of the cost basis stated on its balance sheet.

The USAP accounts for approximately 88 percent of NSF's Property, Plant, and Equipment (PP&E) balance as of June 30, 2010. The multi-year contract between NSF and the Raytheon Polar Services Company (RPSC) states that RPSC is responsible for acquiring, maintaining, and performing a physical inventory of USAP property. NSF relies upon RPSC to maintain all related source documentation and record amounts for the PP&E activities it conducts. NSF had an independent consultant verify and validate the property reports NSF receives from RPSC to obtain an unbiased evaluation and to avoid

[19] APIC serves as the agency's Senior Assessment Team to document, monitor, and report on internal control.

overreliance on RPSC. This annual verification and validation project includes capital equipment, CIP, and freight costs. No exceptions were noted that would material impact the PP&E balance on the financial statements.

Information Technology Assessment

In FY 2010, the Internal Controls Quality Assurance Team reviewed the controls for selected systems using a standard federal methodology (the Federal Information System Controls Audit Manual or "FISCAM"). The methodology covered five domains: access control; contingency planning; configuration management; segregation of duties; and security management. The Team also developed a baseline for future assessments and implementation efforts through interviews, observations, supporting documentation, and gap analysis. Overall NSF's information technology (IT) controls are effective in maintaining a secure IT environment at NSF. The assessment concluded that NSF's IT environment is supported by a suite of comprehensive policies and procedures that incorporate federal mandates and guidance in all domains. Numerous controls have been implemented to protect agency financial information and information resources. There are no Federal Information Security Management Act (FISMA) significant deficiencies related to NSF systems, including the financial system. Continuous monitoring verifies throughout the year that effective IT security controls are in place.

Assessment of Recovery Act Funds

Under the Recovery Act, NSF received $3.0 billion to fund investments in science and engineering research and education, which was required to be obligated by September 30, 2010. NSF has established and maintained adequate internal controls to ensure that: 1) Recovery Act funding has been expended for the intended purposes and in accordance with internal and external guidance; 2) reported results regarding the expenditure of Recovery Act funds and the outcomes achieved are accurate and verifiable; and 3) key control processes impacting the execution of Recovery Act funding have been evaluated and deemed effective.

Improper Payments Information Act

The Improper Payments Information Act (IPIA) of 2002 and OMB Circular A-123, Appendix C, *Management's Responsibility for Internal Control: Requirements for Effective Measurement and Remediation of Improper Payments*, and Executive Order 13520 require agencies to review all programs and activities, identify those that are susceptible to significant erroneous payments, and determine an annual estimated amount of erroneous payments made in those programs.

In FY 2009, NSF conducted a statistical review of its FY 2008 Federal Financial Report transactions received from grant recipients. Consistent with the results of previous reviews, the occurrence of NSF improper payments continued to be well below the significant standard of improper payments, which is defined by OMB guidance as exceeding $10 million and 2.5 percent of total outlays. As a result, OMB renewed NSF's relief from the annual IPIA reporting for FY 2010 and FY 2011. During this relief period, NSF will continue its annual grant expenditure sampling process and its internal risk-based approach as part of an integrated and comprehensive grant monitoring program strategy. This strategy coupled with strong financial management controls will assist NSF to ensure that taxpayer dollars are spent correctly and efficiently.

Additional actions are being developed in accordance with Executive Order 13520, issued on November 20, 2009, which established new requirements for agencies on improper payments. A key component of the Executive Order is emphasis on high-priority programs which are defined as programs that have a higher impact on improper payments. Although OMB determined that NSF does not have

high-priority improper payment programs, NSF has worked with its OIG and OMB to implement the Executive Order in two areas:

1) Developing additional measures and targets on the recovery of improper payments.

2) A quarterly high-dollar improper payments report to the Inspector General.

For FY 2010, NSF did not develop additional measures to recover improper payments because its annual outlays for contracts are below the $500 million threshold specified in OMB guidance. NSF is, nonetheless, reviewing payment transactions and issuing a quarterly High-Dollar Improper Payments Report to the Inspector General.

Financial System Strategy

NSF's Financial Accounting System (FAS) is a custom-developed online, near real-time system that provides the full spectrum of financial and budget management functionalities as required by a grant-making agency. FAS is integrated with NSF's core mission systems for proposal intake, merit review, award processing, and post-award administration, including Electronic Jacket (eJacket), Awards System, Guest (panelists) Travel and Reimbursement System, FastLane, and Research.gov. FAS also supports the e-Travel System and Training System. The grant and core financial processes are maintained by FAS and the system is used to monitor and track over 55,000 active awards with over 2,100 external grantee institutions.

Consistent with NSF's e-Government Implementation Plan, FAS will remain in a steady-state phase until it is replaced with a new financial management system. In FY 2010, NSF continued planning for iTRAK, a financial management system initiative to replace the current legacy core financial system. NSF is managing iTRAK in accordance with OMB's guidance dated June 2010, that sets forth principles for the implementation and project management of new financial systems. As part of the pre-acquisition phase of the iTRAK initiative, NSF is developing its functional and technical requirements for the new system, documenting its key interfaces, and continuing to focus on cleaning data in FAS to ensure the integrity of the data being migrated to the new system.

Chapter 2: Financial Statements

Credit: Sandy Schaeffer

A Message from the Chief Financial Officer

I am pleased to report that for fiscal year (FY) 2010 the National Science Foundation (NSF) received an unqualified audit opinion, affirming that NSF's financial statements for the year ended September 30, 2010, were presented fairly in all material respects, in conformity with U.S. generally accepted accounting principles. This is the agency's thirteenth consecutive unqualified audit opinion. The audit report included no material weaknesses; however, the prior year significant deficiency related to the monitoring of cost reimbursement contracts was repeated. The audit report acknowledged that progress had been made during the last year but insufficient cost surveillance procedures continue to exist.

NSF will prioritize its resources in an effort to address the key findings and recommendations in the report. In addition, we will continue to work in partnership with the Office of Inspector General to develop an action plan that will enable the agency to resolve the deficiency.

NSF's high standards for performance and integrity extend to financial management and business processes. This includes ensuring that critical business processes are run effectively and efficiently; responding rapidly to change; providing timely, reliable information to inform management decisions; and maintaining the highest level of business services. An added challenge is the focus on transparency and open access to data established by the Transparency Act and the American Recovery and Reinvestment Act (ARRA), which is becoming the new standard in financial management.

In the last year, activities of note include the following:

- The American Recovery and Reinvestment Act (ARRA) continued to have a significant impact on the agency. NSF obligated the remaining $600 million of its ARRA funds and established an extensive program to monitor awardee performance and recipient reporting and spending. For the four quarters ending June 30, 2010, the average recipient reporting rate was 99.2 percent. Of the nearly 5,000 reports submitted to NSF each quarter—the fourth highest across all federal agencies—only 0.02 percent included an error. Moreover, because of rigorous monitoring, no ARRA-funded awards were terminated for not making expenditures in the first year.

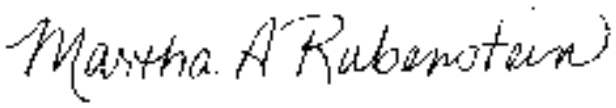
- To improve grant administration, NSF's entire suite of Award Terms and Conditions was updated to incorporate new mandates issued by the Office of Management and Budget (OMB) including such items as reporting information on first-tier sub-awards and required maintenance of valid Central Contractor Registration and Universal Identifier Requirements, among others.

- To enhance NSF's advanced post-award monitoring effort, the Award Monitoring and Business Assistance Program was updated to integrate the results of the quarterly ARRA reporting requirements. In addition, NSF has refocused its monitoring efforts on organizations identified as needing more intensive business assistance.

- In accordance with new requirements for financial management systems, NSF enhanced the internal control program by conducting a review and risk assessment to ensure agency compliance with applicable laws and regulations. Based on the results of the evaluation, NSF can provide reasonable assurance in reporting substantial compliance.

- Although OMB renewed NSF's relief from the annual Improper Payments Information Act reporting for FY 2010 and FY 2011 due to the low level of NSF's improper payments, NSF continues to actively monitor improper payments. NSF management worked with OMB and the NSF Office of Inspector General (OIG) to implement Executive Order 13520 by providing quarterly reports on high-dollar improper payments to the OIG.

A more detailed discussion of these activities and others is included in this report. This report also includes a summary of information related to NSF's performance toward specific goals established in keeping with both ARRA and the Government Performance and Results Act (GPRA). Of particular note for FY 2010 is NSF achieving its goals for investing in potentially transformative research and for establishing metrics for programs that contribute to the "Learning" strategic goal.



Martha A. Rubenstein
Chief Financial Officer and
Director, Office of Budget, Finance and Award Management

November 15, 2010

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

November 12, 2010

TO: Dr. Subra Suresh
Director, National Science Foundation

Dr. Ray M. Bowen
Chair, National Science Board

FROM: Allison Lerner
Inspector General, National Science Foundation

SUBJECT: Audit of the National Science Foundation's
Fiscal Years 2010 and 2009 Financial Statements

This memorandum transmits Clifton Gunderson LLP's financial statement audit report of the National Science Foundation (NSF) for Fiscal Years 2010 and 2009.

Results of Independent Audit

The Chief Financial Officer's (CFO) Act of 1990 (P.L. 101-576), as amended, requires NSF's Inspector General or an independent external auditor, as determined by the Inspector General, to audit NSF's financial statements. Under a contract monitored by the Office of Inspector General (OIG), Clifton Gunderson LLP, an independent public accounting firm, performed an audit of NSF's Fiscal Years 2010 and 2009 financial statements. The contract required that the audit be performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States, and Bulletin 07-04, *Audit Requirements for Federal Financial Statements,* as amended, issued by the United States Office of Management and Budget.

Clifton Gunderson LLP issued an unqualified opinion on NSF's financial statements. In its Report on Internal Control over Financial Reporting, Clifton Gunderson LLP reported a significant deficiency related to NSF's monitoring of cost reimbursement contracts and did not report any material weaknesses in internal control. Clifton Gunderson LLP also reported that there were no reportable instances in which NSF's financial management systems did not substantially comply with the requirements of the Federal Financial Management Improvement Act of 1996 (FFMIA). Finally, Clifton Gunderson LLP found no reportable instances of noncompliance with laws and regulations it tested.

NSF management's response, dated November 11, 2010, follows Clifton Gunderson LLP's report.

Evaluation of Clifton Gunderson LLP's Audit Performance

To fulfill our responsibilities under the CFO Act of 1990, as amended, and other related federal financial management requirements, the OIG:

- Reviewed Clifton Gunderson LLP's approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with NSF management to discuss audit progress, findings, and recommendations;
- Reviewed Clifton Gunderson LLP's audit report to ensure compliance with Government Auditing Standards and Office of Management and Budget Bulletin No. 07-04, as amended; and
- Coordinated issuance of the audit report.

Clifton Gunderson LLP is responsible for the attached auditor's report dated November 11, 2010, and the conclusions expressed in the report. We do not express any opinion on NSF's financial statements or conclusions on the effectiveness of internal control, on compliance with laws and regulations, or on whether NSF's financial management systems substantially complied with FFMIA.

The Office of Inspector General appreciates the courtesies and cooperation NSF extended to Clifton Gunderson LLP and OIG staff during the audit. If you or your staff has any questions, please contact me or Dr. Brett M Baker, Assistant Inspector General for Audit on 703-292-2985.

Attachment

cc: Mr. Arthur K. Reilly, Chair, Audit and Oversight Committee

Clifton Gunderson LLP
Certified Public Accountants & Consultants

Independent Auditor's Report

Inspector General, National Science Foundation
Director, National Science Foundation
Chair of National Science Board

In our audit of the National Science Foundation (NSF) for fiscal year (FY) 2010 we found:

- The balance sheets of NSF as of September 30, 2010 and 2009, and the related statements of net cost, changes in net position, and budgetary resources for the years then ended (hereinafter referred to as "consolidated financial statements") are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America;
- No material weaknesses in internal control over financial reporting (including safeguarding assets) and no material non-compliance with laws and regulations, however we did note a significant deficiency in internal control over financial reporting;
- Progress has been made in FY 2010 on the control deficiency condition noted in the FY 2009 auditor's report; however, certain matters relating to that condition continue to exist and are reported herein as a significant deficiency;
- No reportable instances of noncompliance with laws and regulations we tested, including the Federal Financial Management Improvement Act of 1996 (FFMIA).

The following sections discuss in more detail: (1) these conclusions, (2) our conclusions on Management's Discussion and Analysis (MD&A) and other supplementary information, (3) our audit objectives, scope and methodology, and (4) agency comments and our evaluation.

OPINION ON FINANCIAL STATEMENTS

In our opinion, the accompanying financial statements including the accompanying notes present fairly, in all material respects, in conformity with accounting principles generally accepted in the United States, NSF's assets, liabilities, and net position as of September 30, 2010 and 2009; and net costs; changes in net position; and budgetary resources for the years then ended.

CONSIDERATION OF INTERNAL CONTROL

In planning and performing our audit, we considered NSF's internal control over financial reporting as a basis for designing our auditing procedures and to comply with the Office of Management and Budget (OMB) audit guidance for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the entity's internal control over financial reporting or on management's assertion on internal control included in the MD&A.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be a significant deficiency.

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

A significant deficiency is a deficiency or a combination of deficiencies in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the deficiency described in Exhibit I to be a significant deficiency in internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, we do not believe that the significant deficiency described in Exhibit I is a material weakness.

We also noted certain other non-reportable matters involving internal control and its operation that we will communicate in a separate letter to NSF management.

SYSTEMS' COMPLIANCE WITH FFMIA REQUIREMENTS

Under the Federal Financial Management Improvement Act of 1996 (FFMIA), we are required to report whether the financial management systems used by NSF substantially comply with the Federal financial management systems requirements, applicable Federal accounting standards, and the United States Standard General Ledger (SGL) at the transaction level. To meet this requirement, we performed tests of compliance with FFMIA Section 803(a) requirements.

The objective of our audit was not to provide an opinion on compliance with FFMIA. Accordingly, we do not express such an opinion. However, our work disclosed no instances in which NSF's financial management systems did not substantially comply with Federal financial management systems requirements, Federal accounting standards or the SGL at the transaction level.

COMPLIANCE WITH LAWS AND REGULATIONS

Our tests of NSF's compliance with selected provisions of laws and regulations for FY 2010 disclosed no instances of noncompliance that would be reportable under United States generally accepted government auditing standards or OMB audit guidance. However, the objective of our

audit was not to provide an opinion on overall compliance with laws and regulations. Accordingly, we do not express such an opinion.

STATUS OF PRIOR YEAR'S CONTROL DEFICIENCY

As required by United States generally accepted government auditing standards and OMB Bulletin No. 07-04, as amended, we have reviewed the status of NSF's corrective actions with respect to the finding and recommendations included in the prior year's Independent Auditor's Report dated November 12, 2009.

The prior year audit report noted one control deficiency: *Contract Monitoring on Cost Reimbursement Contracts*. Even though NSF made improvements in its contract monitoring policies and procedures in FY 2010, continued improvements are needed. Accordingly, this matter is again included in this report (Exhibit I) as a significant deficiency. The introductory paragraph of Exhibit I provides a brief discussion on the status of the prior year findings and recommendations.

CONSISTENCY OF OTHER INFORMATION

NSF Management's Discussion and Analysis (MD&A) and other required supplementary information contains a wide range of information, some of which is not directly related to the financial statements. We compared this information for consistency with the financial statements and discussed the methods of measurement and presentation with NSF officials. Based on this limited work, we found no material inconsistencies with the financial statements; accounting principles generally accepted in the United States, or OMB guidance. However, we do not express an opinion on this information.

Other information, exclusive of the MD&A and the Financials sections listed in the table of contents of the FY 2010 Agency Financial Report, is presented for additional analysis and is not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

OBJECTIVES, SCOPE AND METHODOLOGY

NSF management is responsible for (1) preparing the financial statements in conformity with accounting principles generally accepted in the United States, (2) establishing, maintaining, and assessing internal control to provide reasonable assurance that the broad control objectives of the Federal Managers' Financial Integrity Act (FMFIA), are met, (3) ensuring that NSF's financial management systems substantially comply with FFMIA requirements, and (4) complying with other applicable laws and regulations.

We are responsible for obtaining reasonable assurance about whether the financial statements are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States. We are also responsible for: (1) obtaining a sufficient

understanding of internal control over financial reporting and compliance to plan the audit, (2) testing whether NSF's financial management systems substantially comply with the three FFMIA requirements, (3) testing compliance with selected provisions of laws and regulations that have a direct and material effect on the financial statements and laws for which OMB audit guidance requires testing, and (4) performing limited procedures with respect to certain other information appearing in the Agency Financial Report.

In order to fulfill these responsibilities, we (1) examined, on a test basis, evidence supporting the amounts and disclosures in the financial statements, (2) assessed the accounting principles used and significant estimates made by management, (3) evaluated the overall presentation of the financial statements, (4) obtained an understanding of NSF and its operations, including its internal control related to financial reporting (including safeguarding of assets), and compliance with laws and regulations (including execution of transactions in accordance with budget authority), (5) tested relevant internal controls over financial reporting, and compliance, and evaluated the design and operating effectiveness of internal control, (6) considered the design of the process for evaluating and reporting on internal control and financial management systems under FMFIA, (7) tested whether NSF's financial management systems substantially complied with the three FFMIA requirements, and (8) tested compliance with selected provisions of certain laws and regulations.

We did not evaluate all internal controls relevant to operating objectives as broadly defined by the FMFIA, such as those controls relevant to preparing statistical reports and ensuring efficient operations. We limited our internal control testing to controls over financial reporting and compliance. Because of inherent limitations in internal control, misstatements due to error or fraud, losses, or noncompliance may nevertheless occur and not be detected. We also caution that projecting our evaluation to future periods is subject to risk that controls may become inadequate because of changes in conditions or that the degree of compliance with controls may deteriorate. In addition, we caution that our internal control testing may not be sufficient for other purposes.

We did not test compliance with all laws and regulations applicable to NSF. We limited our tests of compliance to selected provisions of laws and regulations that have a direct and material effect on the financial statements and those required by OMB audit guidance that we deemed applicable to NSF's financial statements for the fiscal year ended September 30, 2010. We caution that noncompliance with laws and regulations may occur and not be detected by these tests and that such testing may not be sufficient for other purposes.

We performed our audits in accordance with auditing standards generally accepted in the United States; the standards applicable to the financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States; and OMB guidance. We believe our audits provide a reasonable basis for our opinion.

AGENCY COMMENTS AND OUR EVALUATION

NSF's response to the findings identified in our audit is described in the accompanying Exhibit II. We did not audit NSF's response and, accordingly, we express no opinion on it.

****

This report is intended solely for the information and use of NSF's management, the National Science Board, NSF's Office of Inspector General, OMB, the Government Accountability Office, and the U.S. Congress, and is not intended to be, and should not be, used by anyone other than these specified parties.

Clifton Gunderson LLP

Calverton, Maryland
November 11, 2010

EXHIBIT I

NATIONAL SCIENCE FOUNDATION
CONSIDERATION OF INTERNAL CONTROL
SIGNIFICANT DEFICIENCY
September 30, 2010

Monitoring of Cost Reimbursement Contracts

Background and Control Deficiency Assessment Criteria:
NSF has made progress in FY 2010 in addressing the three conditions noted in our FY 2009 Audit Report on the significant deficiency "Contract Monitoring on Cost Reimbursement Contracts." However, the most important of these prior year conditions (insufficient cost surveillance procedures) continues to exist, which therefore increases the risk that contract funds are not being adequately protected from waste, fraud, and mismanagement.

The weaknesses noted during our audit are as follows:

1. Delays in securing incurred cost audits for NSF's largest and riskiest contracts, and not properly monitoring the receipt, audit, and approval of Cost Accounting Standards (CAS) disclosure statements and incurred cost submissions.
2. Implementation near the end of the fiscal year of contract oversight procedures, resulting in previously noted inadequate and ineffective procedures during the audit period. The most significant of which is the lack of NSF's evaluation of contractor's accounting systems prior to awarding cost reimbursement type contracts.

Without incurred cost audits and verifying recent implementation of improvements to contract oversight procedures, management cannot ensure the reasonableness and accuracy of costs paid on contracts, especially those considered "high risk."

Conditions:
In FY 2010, NSF obligated approximately $422 million for contracts for the delivery of products and services. Of this amount, $283 million was obligated for cost reimbursement contracts, of which $204 million allow advance payments for services on programs with three contractors, with the majority going to one contractor.

The following paragraphs describe the specific conditions that exist at September 30, 2010.

1. **Incurred Cost Audits, Cost Disclosure Statements, and Cost Submissions**
   Incurred cost audits are an important tool that enables management to assess a contractor's compliance with financial terms and conditions of a contract. For contracts subject to Cost Accounting Standards (CAS), an incurred cost audit can only be effectively performed with an approved CAS disclosure statement and incurred cost submissions.

   NSF's Largest Contractor - In the FY 2000 to 2004 incurred cost audits of NSF's largest contractor, the Defense Contract Audit Agency (DCAA) initially questioned approximately $56 million for the five-year period. At September 30, 2009, approximately $30 million of questioned costs remained unresolved and less than $1 million of that amount was resolved in FY 2010.

NSF has been approving advanced payments without an approved CAS disclosure statement since FY 2004. During FY 2010, the contractor provided a disclosure statement effective January 1, 2005; however, DCAA reported in October 2010 that the disclosure statement did not adequately describe the contractor's revised cost accounting practices. Accordingly, it is unclear what the impact of not having an adequate CAS disclosure statement since January 1, 2005 will have on the resolution of remaining DCAA identified questioned costs for FY 2000 to 2004. In addition, future years' incurred cost audits cannot begin until an adequate CAS disclosure statement is submitted and approved. Without an audited and approved CAS disclosure statement in place for this contractor since 2004, NSF may not be able to collect future questioned costs identified for the remaining term of the contract.

NSF has been attempting to obtain an incurred cost audit of its largest contractor for FYs 2005 to FY 2009 with DCAA; however, DCAA delayed committing to do these audits until September 2010, and then only agreed to perform these audits for FYs 2005 to 2007. These audits are not expected to be completed until late FY 2011 and no plans have been made for performing audits on costs incurred since FY 2007.

Other Contractors - Based on materiality and risk, NSF contracted with DCAA to perform incurred cost audits for other cost reimbursement contracts. However, most of these audits are currently in process or will start next fiscal year and will not be completed until FY 2011. Therefore, NSF has not had information in the current fiscal year to determine if costs paid were reasonable, allocable, and allowable. For several of these identified contracts NSF has obtained the CAS disclosure statements. However, a number of these disclosure statements have not yet been deemed adequate.

In summary, without approved disclosure statements and the performance of related incurred cost audits of contractor cost submissions, NSF does not have assurance that it has not overpaid for services provided by its largest and other high risk contractors.

2. Documentation and Effectiveness of Oversight Procedures

a) *Contracting Manual* - We previously reported that NSF's contract monitoring program to oversee and monitor its contract system was inadequate in part because its policies and procedures were not comprehensively risk-based. NSF has provided us with various forms of documentation to support the implementation of its contract oversight improvement action plan during FY 2010. The plan culminated in NSF issuing a revised Contracting Manual on October 1, 2010 to address the recommendations in the FY 2009 Audit Report.

However, since many of these procedural improvements were made toward the end of the audit testing cycle, we were unable to fully assess the implementation and effectiveness of these revisions. Therefore, we were unable to determine if the following oversight deficiencies\condition noted in our FY 2009 Audit Report have been fully resolved:

- Consideration and documentation of NSF's pricing history of cost reimbursement contracts to determine if there is a basis to convert to a contract type with firmer pricing;

- Compliance with the requirements of FAR 9.105-1 related to "Responsible Prospective Contractors" including procedures to document the review to ensure the adequacy of prospective contractors' accounting systems prior to, or shortly after, making the award;
- Obtaining all contractors' applicable CAS disclosure statements as required by the FAR, and ensuring that they are audited and approved timely.
- Obtaining and reviewing incurred cost submissions within the 6-month period following the expiration of each of the contractors' fiscal years.
- Performing periodic validation of incurred costs on cost-reimbursement and other high risk contracts.

b) *Routine Oversight Procedures* – In addition to its Incurred Cost Audit Program described above, NSF does have a program in place to perform examinations of the costs claimed by its three advance payment contractors. Under this oversight program DCAA performs Quarterly Expenditure Report (QER) reviews of NSF's contractor billings. However, since there have been delays by DCAA in completing the planned QER reviews, we deemed NSF's oversight program to be less effective than necessary. In addition, although these QERs add value, they are not a substitute for incurred cost audits that test for allowability of costs, both direct and indirect. An oversight program based on these QER reviews alone provides limited assurance that the amounts paid were reasonable and benefited the NSF projects. Relying on only these QER reviews for oversight purposes highlights the need for timely incurred cost audits for high risk contracts. Without performing incurred cost audits, NSF does not have the information needed to detect significant over-spending on its advance payment contracts.

c) *NSF OIG Reports and Communications* – In FY 2010, the OIG issued memoranda and transmitted reports prepared by DCAA, which identified ongoing weaknesses in NSF's monitoring of contracts and similar agreements. Weaknesses noted include lack of determination of CAS disclosure statements, accounting system adequacy, unresolved questioned costs, and noncompliance with CAS.

   The OIG provided NSF with a DCAA report on September 30, 2010 that questioned the allowability of $88 million in contingency costs provided for in a proposed budget relating to a construction co-operative agreement proposal with a major NSF awardee. NSF began issuing incremental funding actions on this cooperative agreement proposal in September 2009, which was prior to DCAA's report being issued. OMB Circular A-50 provides for a six-month period to resolve audit findings.

In summary, the risk of waste, fraud, and abuse by NSF contractors, especially for NSF's three advance payment contractors, representing FY 2010 obligations of $204 million, will continue to be high until NSF fully implements its new risk-based cost surveillance procedures.

Recommendations:

Overall, we recommend that NSF fully implement its new cost surveillance oversight procedures. We specifically recommend that NSF management focus its efforts in the following areas:

1. **Incurred Cost Audits, Cost Disclosure Statements, and Cost Submissions**
   a) Depending on materiality and risk, and in accordance with Federal Acquisition Regulation (FAR), continue to obtain incurred cost audits for cost reimbursable contracts to obtain assurance of the validity of costs billed to NSF and ensure the findings are addressed in a timely manner.
   b) Review DCAA's audit programs for the FYs 2005 to 2007 incurred cost audits of NSF's largest contract to ensure that they include steps to test for weaknesses identified in prior incurred cost audits and follow up of prior audit findings. NSF should also begin securing a commitment from DCAA to obtain incurred cost audits for FYs 2008 though the end of the contract.
   c) When NSF is the Cognizant Federal Agency Official (CFAO):
      - Ensure that contractors subject to the allowable cost and payment clause provide cost incurred submissions within 6 months following the expiration of each contractor's fiscal year. Audits of these submissions should be performed depending on materiality and risk.
      - Obtain all contractors' approved CAS disclosure statements as required by FAR 52.230-2 "Cost Accounting Standards" and FAR 52.230-6 "Administration of Cost Accounting Standards" and ensure they are audited, approved timely and that the established cost accounting practices are followed consistently.
   d) When NSF is not the CFAO, NSF should obtain documentation to support the results of the audits of the contractor's disclosure statements to ensure the established cost accounting practices are being consistently followed. In addition, NSF should continue to consider incurred cost audits for those contracts NSF determines to be high risk, and for which the CFAO has not obtained such an audit.

2. **Oversight Procedures**
   a) Continue to perform contract file reviews to ensure that all the revisions to the Contracting Manual (October 2010) are effectively implemented. For example, NSF should:
      - Fully document the rationale for contract type selection, including consideration of pricing history under cost-reimbursement contracts.
      - Ensure that the contractor's accounting system has been deemed to be adequate within four years prior to the award process. In addition, as part of the post-award oversight procedure, NSF should ensure the contractor's accounting system is periodically reviewed throughout the life of the contract to determine that the system is still adequate to accurately capture for costs pursuant to the terms of the contract.

b) Continue the Quarterly Expenditure Report (QER) review program and evaluate the scope of the review (i.e. Opinion report vs. Agreed Upon Procedures report) based on what other oversight procedures have been performed recently and the overall risk of cost error in the contract. For example, if incurred cost audits are planned or expected for a particular contractor, NSF management may be able to reduce the scope of the QER from an opinion report to an AUP report. NSF management should continue to monitor the completion status of DCAA's QER reports.
c) Evaluate and prioritize the findings and recommendations detailed in the OIG reports and alert memos issued, and reach an agreement on such priorities with the OIG to begin taking corrective actions. In addition, with respect to DCAA's September 2010 report, NSF should also arrange a meeting with the OIG immediately to begin the OMB prescribed resolution process.

EXHIBIT II

NATIONAL SCIENCE FOUNDATION
MANAGEMENT'S RESPONSE TO FY 2010
INDEPENDENT AUDITOR'S REPORT
November 11, 2011

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

NOV 11 2010

To: Allison Lerner, Inspector General

From: Martha A. Rubenstein, Chief Financial Officer

Subject: Management's Response to Independent Auditor's Report for Fiscal Year 2010

I would like to thank you for the National Science Foundation's (NSF) Fiscal Year (FY) 2010 Financial Statements Audit Report. This is the thirteenth consecutive year that we have achieved an unqualified opinion on the Financial Statements. I am proud of the accomplishment that our NSF staff achieved in supporting the audit of the financial statements. I also appreciate the cooperation and respect that your staff and Clifton Gunderson provided during the course of the audit.

NSF generally agrees with the significant deficiency and recommendations in the audit report. As stated in your report, the Foundation has continued to improve its monitoring of cost reimbursement contracts. For example: we are working diligently with the Defense Contract Audit Agency (DCAA) to ensure cost incurred audits are performed as appropriate. We also updated our contract procedures and implemented several actions throughout the FY.

Concerning the DCAA audit report on construction contingency costs, we issued a position paper to the Office of Inspector General on October 31st describing our disagreement with the conclusions in the report in this area. NSF uses contingencies for estimating construction project budgets to identify resources that the awardee must expend to accomplish the project. This is a well recognized and accepted practice in forecasting construction project budgets, and is distinct from the policies for allowability of costs. Our position is supported by NSF's General Counsel.

The DCAA audit report will be formally resolved in accordance with established audit resolution procedures that conform to Office of Management and Budget's Circular A-50 "Audit Follow-up." NSF is currently evaluating, in depth, the findings and recommendations included in the DCAA audit report and will issue a final decision including actions we conclude will be necessary and timeframes for completing those actions by the awardee organization. Management's decision will be documented in the Audit Resolution Memorandum.

The Foundation is dedicated to meeting ongoing challenges in financial management while achieving excellent results in delivering better information to our stakeholders. I look forward to continuing our strong working relationship with your office.

copies: Dr. Subra Suresh
Dr. Cora B. Marrett

National Science Foundation

FINANCIAL STATEMENTS

As of and for the years ended
September 30, 2010 and 2009

National Science Foundation
Balance Sheet
As of September 30, 2010 and 2009
(Amounts in Thousands)

Assets	**2010**	**2009**
Intragovernmental Assets		
Fund Balance With Treasury (Note 2)	$ 12,458,688	$ 12,233,069
Accounts Receivable	14,390	11,996
Advances (Note 3)	9,782	19,187
Total Intragovernmental Assets	12,482,860	12,264,252
Cash and Other Monetary Assets	44,683	61,305
Accounts Receivable, Net	126	290
Advances (Note 3)	-	39,893
General Property, Plant and Equipment, Net (Notes 4 and 5)	276,754	261,389
Total Assets	**$ 12,804,423**	**$ 12,627,129**
Liabilities		
Intragovernmental Liabilities		
Advances From Others	$ 42,224	$ 44,380
Employer Contributions	1,612	1,454
FECA Employee Benefits	340	310
Other Intragovernmental Liabilities	3,000	3,000
Total Intragovernmental Liabilities	47,176	49,144
Accounts Payable	55,709	47,849
FECA Employee Benefits	1,356	1,319
Accrued Liabilities - Grants	440,796	370,857
Accrued Liabilities - Contracts and Payroll	33,560	35,486
Accrued Annual Leave	17,413	16,889
Total Liabilities	**$ 596,010**	**$ 521,544**
Commitments and Contingencies		
Net Position		
Unexpended Appropriations - Other Funds	$ 11,548,234	$ 11,439,991
Cumulative Results of Operations - Earmarked Funds (Note 7)	335,454	355,872
Cumulative Results of Operations - Other Funds	324,725	309,722
Total Net Position	12,208,413	12,105,585
Total Liabilities and Net Position	**$ 12,804,423**	**$ 12,627,129**

The accompanying notes are an integral part of these statements.

National Science Foundation
Statement of Net Cost
For the Years Ended September 30, 2010 and 2009
(Amounts in Thousands)

Program Costs	**2010**	**2009**
Research and Related Activities		
Gross Costs	$ 5,871,545	$ 5,014,818
Less: Earned Revenues	(93,667)	(100,934)
Net Research and Related Activities	**5,777,878**	**4,913,884**
Education and Human Resources		
Gross Costs	$ 775,422	$ 796,311
Less: Earned Revenues	(8,859)	(8,593)
Net Education and Human Resources	**766,563**	**787,718**
Major Research Equipment and Facilities Construction		
Gross Costs	$ 178,840	$ 146,683
Less: Earned Revenues	-	-
Net Major Research Equipment and Facilities Construction	**178,840**	**146,683**
Costs Not Assigned to Other Programs		
Gross Costs	$ 171,825	$ 154,095
Less: Earned Revenues	-	-
Net Costs Not Assigned to Other Programs	**171,825**	**154,095**
Net Cost of Operations (Notes 8 and 15)	**$ 6,895,106**	**$ 6,002,380**

The accompanying notes are an integral part of these statements.

National Science Foundation
Statement of Changes in Net Position
For the Year Ended September 30, 2010
(Amounts in Thousands)

		2010		
		Earmarked	**All Other**	**Total**
Cumulative Results of Operations				
Beginning Balances (Note 7)	$	355,872	309,722	665,594
Budgetary Financing Sources				
Appropriations Used		-	6,730,584	6,730,584
Non-exchange Revenue		-	229	229
Donations		-	54,300	54,300
Appropriated Earmarked Receipts Transferred In (Note 7)		91,221	-	91,221
Other Financing Sources				
Imputed Financing From Costs Absorbed By Others		-	13,066	13,066
Other		-	291	291
Total Financing Sources		**91,221**	**6,798,470**	**6,889,691**
Net Cost of Operations (Notes 7 and 8)		**(111,639)**	**(6,783,467)**	**(6,895,106)**
Cumulative Results of Operations (Note 7)	**$**	**335,454**	**324,725**	**660,179**
Unexpended Appropriations				
Beginning Balances	**$**	**-**	**11,439,991**	**11,439,991**
Budgetary Financing Sources				
Appropriations Received		-	6,926,510	6,926,510
Appropriations Transferred In / (Out)		-	(54,000)	(54,000)
Other Adjustments		-	(33,683)	(33,683)
Appropriations Used		-	(6,730,584)	(6,730,584)
Total Budgetary Financing Sources		**-**	**108,243**	**108,243**
Total Unexpended Appropriations		**-**	**11,548,234**	**11,548,234**
Net Position	**$**	**335,454**	**11,872,959**	**12,208,413**

The accompanying notes are an integral part of these statements.

National Science Foundation
Statement of Changes in Net Position
For the Year Ended September 30, 2009
(Amounts in Thousands)

		2009		
		Earmarked	**All Other**	**Total**
Cumulative Results of Operations				
Beginning Balances (Note 7)	$	364,640	322,205	686,845
Budgetary Financing Sources				
Appropriations Used		-	5,835,603	5,835,603
Non-exchange Revenue		-	567	567
Donations		-	46,857	46,857
Appropriated Earmarked Receipts Transferred In (Note 7)		88,657	-	88,657
Other Financing Sources				
Imputed Financing From Costs Absorbed By Others		-	10,149	10,149
Other		-	(704)	(704)
Total Financing Sources		**88,657**	**5,892,472**	**5,981,129**
Net Cost of Operations (Notes 7 and 8)		**(97,425)**	**(5,904,955)**	**(6,002,380)**
Cumulative Results of Operations (Note 7)	**$**	**355,872**	**309,722**	**665,594**
Unexpended Appropriations				
Beginning Balances	**$**	**-**	**7,813,135**	**7,813,135**
Budgetary Financing Sources				
Appropriations Received		-	9,492,400	9,492,400
Appropriations Transferred In / (Out)		-	3,214	3,214
Other Adjustments		-	(33,155)	(33,155)
Appropriations Used		-	(5,835,603)	(5,835,603)
Total Budgetary Financing Sources		**-**	**3,626,856**	**3,626,856**
Total Unexpended Appropriations		**-**	**11,439,991**	**11,439,991**
Net Position	**$**	**355,872**	**11,749,713**	**12,105,585**

The accompanying notes are an integral part of these statements.

National Science Foundation
Statement of Budgetary Resources (page 1 of 2)
For the Years Ended September 30, 2010 and 2009
(Amounts in Thousands)

	2010	2009
Budgetary Resources		
Unobligated Balance - Brought Forward, October 1	$ 881,665	$ 243,570
Recoveries of Prior Year Unpaid Obligations	58,155	62,113
Budget Authority		
Appropriation	7,072,259	9,628,481
Spending Authority From Offsetting Collections		
Earned		
Collected	100,185	109,561
Change in Receivables From Federal Sources	2,393	69
Change in Unfilled Customer Orders		
Advance Received	(2,156)	(52,881)
Without Advance From Federal Sources	5,697	61,637
Subtotal - Budget Authority	7,178,378	9,746,867
Nonexpenditure Transfers, Net - Anticipated and Actual	(54,000)	3,214
Permanently Not Available	(33,682)	(33,155)
Total Budgetary Resources (Note 12)	**$ 8,030,516**	**$ 10,022,609**

The accompanying notes are an integral part of these statements.

National Science Foundation
Statement of Budgetary Resources (page 2 of 2)
For the Years Ended September 30, 2010 and 2009
(Amounts in Thousands)

	2010	2009
Status of Budgetary Resources		
Obligations Incurred		
Direct (Note 11)	$ 7,715,530	$ 9,021,671
Reimbursable (Note 11)	108,452	119,273
Total Obligations Incurred (Note 12)	7,823,982	9,140,944
Unobligated Balance - Apportioned (Note 2)	105,102	787,497
Unobligated Balance - Not Available (Note 2)	101,432	94,168
Total Status of Budgetary Resources (Note 12)	**$ 8,030,516**	**$ 10,022,609**
Change in Obligated Balances		
Obligated Balance, Net		
Unpaid Obligations - Brought Forward, October 1	11,502,924	8,488,021
Less: Uncollected Customer Payments From Federal Sources - Brought Forward, October 1	(90,215)	(28,509)
Total Unpaid Obligated Balance, Net	11,412,709	8,459,512
Obligations Incurred	7,823,982	9,140,944
Less: Gross Outlays	(6,873,609)	(6,063,928)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(58,155)	(62,113)
Change in Uncollected Customer Payments From Federal Sources	(8,090)	(61,706)
Subtotal	$ 12,296,837	$ 11,412,709
Obligated Balance, Net - End of Period		
Unpaid Obligations	12,395,142	11,502,924
Less: Uncollected Customer Payments From Federal Sources	(98,305)	(90,215)
Total Unpaid Obligated Balance, Net - End of Period (Note 2)	$ 12,296,837	$ 11,412,709
Net Outlays		
Gross Outlays	6,873,609	6,063,928
Less: Offsetting Collections	(98,030)	(56,680)
Less: Distributed Offsetting Receipts	(55,459)	(2,091)
Net Outlays	**$ 6,720,120**	**$ 6,005,157**

The accompanying notes are an integral part of these statements.

Notes to the Principal Financial Statements

Note 1. Summary of Significant Accounting Policies

A. Reporting Entity

The National Science Foundation (NSF or Foundation) is an independent federal agency created by the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75). Its mission is to promote and advance scientific progress in the United States. NSF initiates and supports scientific research and research fundamental to the engineering process and programs to strengthen the nation's science and engineering potential. NSF also supports education programs at all levels in all fields of science and engineering. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions in all parts of the United States. NSF, by law, cannot operate research facilities except in the polar regions. By award, NSF enters into relationships to fund the research operations conducted by grantees.

NSF is led by a presidentially-appointed Director and the policymaking National Science Board (NSB). The NSB, composed of 25 members, represents a cross-section of American leaders in science and engineering research and education, who are appointed by the President for 6-year terms. The NSF Director is an ex-officio member of the NSB.

B. Basis of Presentation

These financial statements have been prepared to report the financial position and results of operations of NSF as required by the Chief Financial Officers Act of 1990, the Government Management Reform Act of 1994, the Reports Consolidation Act of 2000, and Office of Management and Budget (OMB) Circular A-136, *Financial Reporting Requirements.* While the statements have been prepared from the books and records of NSF in accordance with United States generally accepted accounting principles (U.S. GAAP) for federal entities and the formats prescribed by OMB, the statements are in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records.

C. Basis of Accounting

The accompanying financial statements have been prepared in accordance with U.S. GAAP for federal entities using the accrual method of accounting. Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. The accompanying financial statements also include budgetary accounting transactions that ensure compliance with legal constraints and controls over the use of federal funds.

D. Revenues and Other Financing Sources

NSF receives the majority of its funding through appropriations contained in the Commerce, Justice, Science, and Related Agencies Appropriations Act. NSF receives annual, multi-year, and no-year appropriations that may be expended, within statutory limits. NSF also receives funding via warrant from a special earmarked receipt account that is reported as H-1B funds. Additional amounts are obtained from reimbursements for services provided to other federal agencies, as well as from receipts to the donation account. Also, NSF receives interest earned on overdue receivables and excess cash advances to grantees. The interest earned on overdue receivables and excess cash advances to grantees is returned to the Treasury at the end of each fiscal year.

The Consolidated Appropriations Act, 2010 under Public Law 111-117 provided funding for each of NSF's appropriations. In FY 2009, Congress passed the American Recovery and Reinvestment Act (ARRA) of 2009 under Public Law 111-5. Note 9 contains additional details on ARRA funding.

Appropriations are recognized as a financing source at the time the related "funded" program or administrative expenditures are incurred. Appropriations are also recognized when used to purchase property, plant, and equipment (PP&E). "Unfunded" liabilities, which result from liabilities not covered by budgetary resources, will be paid when future appropriations are made available for these purposes. Donations are recognized as revenues when funds are received. Revenues from reimbursable agreements are recognized when the services are provided and the related expenditures are incurred. Reimbursable agreements are mainly for grant administrative services provided by NSF on behalf of other federal agencies.

Under the general authority of the Foundation, NSF is authorized to accept funds into the NSF Donations Account and to use both U.S. and foreign funds. In accordance with 42 U.S.C. 1862 Section 3 (a)(3), NSF has authority "to foster the interchange of scientific and engineering information among scientists and engineers in the United States and foreign countries" and in 42 U.S.C. 1870 Section 11 (f), NSF is authorized to receive and use funds donated by others. Donations may be received from foreign governments, private companies, academic institutions, nonprofit foundations, and individuals. These funds must be donated without restriction other than that they be used in furtherance of one or more of the general purposes of the Foundation. Funds are made available for obligations as necessary to support NSF programs.

E. Fund Balance with Treasury and Cash and Other Monetary Assets

Cash receipts and disbursements are processed by the Treasury. Fund Balance with Treasury is composed primarily of appropriated funds that are available to pay current liabilities and finance authorized purchase commitments. Cash and Other Monetary Assets primarily include nonappropriated funding sources from donations and undeposited collections.

F. Accounts Receivable, Net

Accounts Receivable consists of amounts due from governmental agencies, private organizations, and individuals. Additionally, NSF has the right to conduct cost incurred audits on its contractors to verify billed amounts. These audits may result in monies owed back to NSF. Upon resolution of the amount owed by the contractor to NSF, a receivable is recorded.

NSF establishes an allowance for loss on accounts receivable from nonfederal sources that are deemed uncollectible but regards amounts due from other federal agencies as fully collectible. NSF analyzes each account independently to assess collectability and the need for an offsetting allowance or write-off. NSF writes off delinquent debt from nonfederal sources that is more than 2 years old.

G. Advances

Advances consist of advances to grantees, contractors, and federal agencies. Advance payments are made to grant recipients so that recipients may incur expenditures related to the approved grant. Payments are only made within the amount of the recorded grant obligation and are intended to cover immediate cash needs. Advances to contractors are payments made in advance of incurring expenditures. Advances to federal agencies are issued when agencies are operating under working capital funds or are unable to incur costs on a reimbursable basis. Advances are reduced when documentation supporting expenditures is received and recorded.

H. General Property, Plant and Equipment

NSF capitalizes PP&E with costs exceeding $25 thousand and useful lives of 2 or more years; items not meeting these criteria are recorded as operating expenses. NSF currently reports capitalized PP&E at original acquisition cost. Assets acquired from the General Services Administration (GSA) excess property schedules are recorded at the value assigned by the donating agency. Assets transferred in from other agencies are at the cost recorded by the transferring entity for the asset net of accumulated depreciation or amortization.

The PP&E balance consists of Equipment, Software, Software in Development, Aircraft and Satellites, Buildings and Structures, Leasehold Improvements, and Construction-in-Progress (CIP). These balances are comprised of PP&E maintained in-house by NSF to support operations and PP&E under the U.S. Antarctic Program (USAP). The majority of USAP property is currently under the custodial responsibility of the prime NSF contractor for the program.

Costs incurred to construct buildings and structures are accumulated and tracked as construction in progress. At 75 percent completion of construction, an onsite conditional occupancy inspection is performed to inspect for compliance to the approved plans, design, specifications, and changes. Items that pertain to the safety and health of any future occupants of the facility must be corrected before a conditional occupancy is granted and the facility occupied. When conditional occupancy is granted, the completed project is transferred from CIP to real property or capital equipment and depreciated over the respective useful life of the asset.

Depreciation expense is calculated using the straight line half-year convention. The economic useful life classifications for capitalized assets are as follows:

Equipment

5 years	Computers and peripheral equipment, fuel storage tanks, laboratory equipment, and vehicles
7 years	Communications equipment, office furniture and equipment, pumps and compressors
10 or 15 years	Generators, Department of Defense equipment
20 years	Movable buildings (e.g. trailers)

Aircraft and Satellites

7 years	Aircraft, aircraft conversions, and satellites

Buildings and Structures

31.5 years	Buildings and structures placed in service prior to 1994
39 years	Buildings and structures placed in service after 1993

Leasehold Improvements

The NSF headquarters buildings are leased through GSA under an occupancy agreement. The cancellation clause within the agreement allows NSF to terminate use with a 120-day notice. NSF is billed by GSA for the leased space as rent based upon estimated lease payments made by GSA plus an administrative fee. Therefore, the cost of the headquarters buildings is not capitalized by NSF.

The cost of leasehold improvements performed by GSA is financed with NSF-appropriated funds. Amortization is calculated using the straight line half-year convention upon transfer from CIP. In FY 2010, leasehold improvements completed during the year were amortized over 3 years, the remaining years on NSF's lease with GSA.

Internal Use Software

NSF controls, values, and reports purchased or developed software as tangible property assets, in accordance with the Statement of Federal Financial Accounting Standards (SFFAS) No. 10, *Accounting for Internal Use Software.* NSF identifies software investments as accountable property for items that, in the aggregate, cost $500 thousand or more to purchase, develop, enhance or modify a new or existing NSF system. Software projects that are not completed at year-end and are expected to exceed the capitalization threshold are recorded as software in development. All internal use software meeting the capitalization threshold is amortized over a 5-year period using the straight line half-year convention.

Assets Owned by NSF in the Custody of Other Entities: NSF awards grants, cooperative agreements, and contracts to various organizations, including colleges and universities, nonprofit organizations, state and local governments, Federally Funded Research and Development Centers (FFRDCs), and private entities. The funds provided may be used in certain cases to purchase or construct PP&E to be used for operations or research on projects or programs sponsored by NSF. In these instances, NSF funds the acquisition of property, but transfers control of the assets to these entities. NSF's authorizing legislation specifically prohibits the Foundation from operating such property directly.

In practice, NSF's ownership interest in such PP&E is similar to a reversionary interest. To address the accounting and reporting of these assets, specific guidance was sought by NSF and provided by the Federal Accounting Standards Advisory Board (FASAB). This guidance stipulates that NSF should: (i) disclose the value of such PP&E held by others in its financial statements based on information contained in the audited financial statements of these entities (if available); and (ii) report information on costs incurred to acquire the research facilities, equipment, and platforms in the Research and Human Capital Activity costs as required by the SFFAS No. 8, *Supplementary Stewardship Reporting*. Very few entities disclose information on NSF-titled property in their audited financial statements. Therefore, NSF has elected to disclose only the number of entities in possession of NSF-owned property. Entities that separately present the book value of NSF-titled property in their audited financial statements and all FFRDCs are listed in Note 5 along with the book value of the property held.

I. Advances From Others

Advances From Others consist of amounts obligated and advanced by other federal entities to NSF for grant administration and other services to be furnished under reimbursable agreements. Balances at the end of the year are adjusted by an allocated amount from the fourth quarter grantee expenditure estimate described under Note 1K, Accrued Liabilities –Grants. The amount to be allocated by Trading Partner is based on a percentage of reimbursable grant expenditures to total grant expenditures.

J. Accounts Payable

Accounts Payable consists of liabilities to federal agencies, commercial vendors, contractors, and disbursements in transit. Accounts payable to federal agencies, commercial vendors, and contractors are expenses for goods and services received but not yet paid by NSF at the end of the fiscal year. At year-end, NSF accrues for the amount of estimated unpaid expenditures to commercial vendors for which invoices have not been received, but goods and services have been delivered and rendered. Accounts payable also consist of disbursements in transit recorded by NSF but not paid by Treasury.

K. Accrued Liabilities–Grants

General Grant Accrual Methodology

Prior to FY 2010, NSF estimated the ending cash-on-hand balance in total for its grantees after the accrued grant expenditures had been calculated. Based on a weighted average of 3 years of historical cash on hand data, NSF applied the negative cash on hand rate to the estimated ending cash on hand to determine the amount recorded as a liability. The difference between the total expenditure amount accrued and the liability recorded was used to reduce the advance.

In FY 2010, NSF changed its report presentation methodology by netting advances to grantees and the accrued grant liability. The accrued expenditure is first applied to liquidate the balance of Advances to Grantees. Any remaining accrual is then applied as an accrued grant liability. The change in methodology does not affect the net of Assets and Liabilities on the Balance Sheet, and the FY 2009 presentation was not revised due to immateriality.

Regular Grants

The total grant liabilities for the year are determined based on an estimate of prior quarter expenditures incurred and cash-on-hand held by the grantees. The majority of NSF's grantees are reimbursed for incurred costs, but due to the timing of the receipt of expenditure reports, grantees draw down funds prior to the recognition of the reimbursement for incurred costs. This timing constraint causes funding to grantees to be recorded as advances. The grant accrual calculation is based on historical trend analyses prepared by NSF. NSF uses a methodology to track the spending patterns by fiscal year and quarter for each of its fund groups. NSF determined that each appropriation and the year of the appropriation have a noted spending pattern. Based on historical information, NSF applies an average percentage rate to the current year grant related obligations for each individual appropriation within a fund group. The calculation provides NSF with the accrued expenditure.

ARRA Grants

Prior to FY 2009, the first year that American Recovery and Reinvestment Act (ARRA) funds were expended, no ARRA specific historical information existed, so the methodology for calculating the expenditure accrual was based on the similarity of spending trends between the ARRA grants and standard grants. In FY 2010, NSF determined that the ARRA grants' spending patterns differed significantly from that of regular grants. By Presidential and Congressional direction, ARRA funding is meant to be expended as expediently as possible; as a result, NSF changed its accrual for ARRA grant expenditures to accelerate the accrual to match the unique nature of the ARRA grants.

The revised accrual method is based on the average percentage increase in actual ARRA grant expenditures over the cumulative previous quarters of grant activity. As more information and history is accumulated, the accrued expenditures, based on the average percentage increase, will be monitored closely against the actual expenditures to ensure that any need for modification is addressed.

This revised methodology will be used for ARRA grants in the Research and Related Activities (R&RA) and Education and Human Resources (EHR) appropriations. For ARRA related grants in the Major Research Equipment and Facilities Construction (MREFC) appropriation, the Large Facilities Office provides estimated expenditures based on the progress of individual construction projects. The change in the accrual methodology did not materially affect the financial statements.

L. Accrued Liabilities–Contracts and Payroll

Accrued Liabilities–Contracts and Payroll consist of contract accruals and accrued payroll. The total contracts liabilities for the year are determined based on an estimate of prior quarter expenditures incurred by the three contractors that are funded on an advance basis. Expenditures are estimated for each

contractor by computing an average of the previous four quarters of actual expenditures reported. The accrual increases expenditures and decreases advances for the account. If the estimated accrual amount exceeds total advances, a liability is accrued for the excess. NSF's payroll services are provided by the Department of the Interior's National Business Center. Accrued payroll and benefits relate to services rendered by NSF employees, for which they are not yet paid. At year end, NSF accrues the amount of wages and benefits earned, but not yet paid.

M. Employee Benefits

A liability is recorded for estimated and actual future payments to be made for workers' compensation pursuant to the Federal Employees' Compensation Act (FECA). The liability consists of the net present value of estimated future payments calculated by the U.S. Department of Labor (DOL) and the actual unreimbursed cost paid by DOL for compensation paid to recipients under FECA. The actual costs incurred are reflected as a liability because NSF will reimburse DOL two years after the actual payment of expenses. Future NSF Agency Operations and Award Management appropriations will be used for DOL's estimated reimbursement.

Annual leave is accrued as it is earned, and the accrual is reduced as leave is taken. Each year, the balance in the accrued annual leave account is adjusted to reflect changes. To the extent current and prior-year appropriations are not available to fund annual leave earned but not taken, funding will be obtained from future Agency Operations and Award Management appropriations (AOAM). Sick leave and other types of nonvested leave are expensed as taken.

N. Net Position

Net position is the residual difference between assets and liabilities and is composed of unexpended appropriations and cumulative results of operations. Unexpended appropriations represent the amount of undelivered orders and unobligated balances of budget authority. Unobligated balances are the amount of appropriations or other authority remaining after deducting the cumulative obligations from the amount available for obligation. The cumulative results of operations represent the net results of NSF's operations since the Foundation's inception.

O. Retirement Plan

In FY 2010, approximately 16 percent of NSF employees participated in the Civil Service Retirement System (CSRS), to which NSF matches contributions equal to 7 percent of pay. The majority of NSF employees are covered by the Federal Employees Retirement System (FERS) and Social Security. A primary feature of FERS is a thrift savings plan to which NSF automatically contributes 1 percent of pay and matches employee contributions up to an additional 4 percent of pay. NSF also contributes the employer's matching share for Social Security for FERS participants.

Although NSF funds a portion of the benefits under FERS and CSRS relating to its employees and withholds the necessary payroll deductions, the Foundation has no liability for future payments to employees under these plans, nor does NSF report CSRS, FERS, Social Security assets, or accumulated plan benefits, on its financial statements. Reporting such amounts is the responsibility of the Office of Personnel Management (OPM) and the Federal Retirement Thrift Investment Board.

SFFAS No. 5, *Accounting for Liabilities of the Federal Government,* requires employing agencies to recognize the cost of pensions and other retirement benefits during their employees' active years of service. OPM actuaries determine pension cost factors by calculating the value of pension benefits expected to be paid in the future, and provide these factors to the agency for current period expense reporting. Information is also provided by OPM regarding the full cost of health and life insurance

benefits on the OPM Benefit Administration website http://www.opm.gov/retire/pubs/bals/2010/10-306.pdf

P. Contingencies and Possible Future Costs

Contingencies–Claims and Lawsuits: NSF is a party to various legal actions and claims brought against it. In the opinion of NSF management and legal counsel, the ultimate resolution of the actions and claims will not materially affect the financial position or operations of the Foundation. NSF recognizes the contingency in the financial statements when claims are expected to result in a material loss (and the payment amounts can be reasonably estimated) whether from NSF's appropriations or the Judgment Fund, administered by the Department of Justice under Section 1304 of Title 31 of the United States Code.

Claims and lawsuits have also been made and filed against awardees of the Foundation by third parties. NSF is not a party to these actions and NSF believes there is no possibility that NSF will be legally required to satisfy such claims. Judgments or settlements of the claims against awardees that impose financial obligation on them may be claimed as costs under the applicable contract, grant, or cooperative agreement and thus may affect the allocation of program funds in future fiscal years. In the event that the claim becomes probable and amounts can be reasonably estimated, the claim will be recognized.

Contingencies–Unasserted Claims: For claims and lawsuits that have not been made and filed against the Foundation, NSF management and legal counsel determine, in their opinion, whether resolution of the actions and claims it is aware of will materially affect the Foundation's financial position or operations. NSF recognizes a contingency in the financial statements when unasserted claims are probable of assertion, and if asserted, would be probable of an unfavorable outcome, and expected to result in a measurable loss, whether from NSF's appropriations or the Judgment Fund. NSF discloses unasserted claims if materiality or measurability of a potential loss cannot be determined or the loss is more likely than not to occur rather than probable.

Termination Claims: NSF engages organizations, including Federally Funded Research and Development Centers (FFRDCs), in cooperative agreements and contracts to manage, operate, and maintain research facilities for the benefit of the scientific community. As part of these agreements and contracts, NSF funds on a pay-as-you-go basis certain employee benefit costs (accrued vacation and other employee related liabilities, severance pay and medical insurance), long term leases and vessel usage. Agreements with FFRDCs include a clause that commits NSF to seek appropriations for termination expenses, if necessary, in the event an agreement is not renewed or is terminated.

NSF is obligated to pay termination expenses for FFRDCs in excess of the limitation of funds set forth in the agreements, including any Post Retirement Benefit liabilities, only if funds are appropriated for this specific purpose. Nothing in these agreements can be construed as implying that Congress will appropriate funds to meet the terms of any claims. Although one FFRDC operator has identified these payments as a current obligation of NSF, the termination clause of the agreement clearly states that any obligation for these expenses exists only upon termination of the agreement and is limited to the lesser of available appropriations or $25 thousand. NSF considers non-renewal or termination of these cooperative agreements only remotely possible. Termination costs that may be payable to an FFRDC operator cannot be estimated until such time as the cooperative agreement is terminated.

Environmental Liabilities: NSF manages the USAP. The Antarctic Conservation Act and its implementing regulations identify the requirements for environmental clean-up in Antarctica. NSF continually monitors the USAP in regards to environmental issues. NSF establishes its environmental liability estimates in accordance with the requirements of the SFFAS No. 5, *Accounting for Liabilities of the Federal Government,* and as amended by SFFAS No. 12, *Recognition of Contingent Liabilities*

Arising from Litigation, and the Federal Financial Accounting and Auditing Technical Release No. 2, *Determining Probable and Reasonably Estimable for Environmental Liabilities in the Federal Government.*

While NSF is not legally liable for environmental clean-up costs in the Antarctic, there are occasions when the NSF Office of Polar Programs (OPP) chooses to accept responsibility and commit funds toward clean-up efforts of various sites as resources permit. Those decisions are in no way driven by concerns of probable legal liability for failure to engage in such efforts, but rather, a commitment to environmental stewardship of Antarctic natural resources. Environmental clean-up projects started and completed during the year are reflected in NSF's financial statements as expenses for the current fiscal year. An estimated cost is accrued for approved projects that are anticipated to be performed after the fiscal year end or will take more than one fiscal year to complete.

Q. Use of Estimates

Management has made certain estimates and assumptions when reporting assets, liabilities, revenues, and expenses, and also in the note disclosures. Estimates underlying the accompanying financial statements include accounting for grants, contracts, accounts payable, payroll, and PP&E. Actual results may differ from these estimates, and the difference will be adjusted for and included in the financial statements of the following fiscal year.

Note 2. Fund Balance With Treasury

Fund Balance With Treasury consisted of the following components as of September 30, 2010 and 2009:

(Amounts in Thousands)	2010			
	Appropriated Funds	Donated Funds	Earmarked Funds	Total
Obligated	$ 11,974,777	$ 34,174	$ 287,886	$ 12,296,837
Unobligated Available	12,451	45,625	47,026	105,102
Unobligated Unavailable	98,304	4	3,124	101,432
Less: Budgetary Non-FBWT	-	(44,683)	-	(44,683)
Total FBWT	$ 12,085,532	$ 35,120	$ 338,036	$ 12,458,688

(Amounts in Thousands)	2009			
	Appropriated Funds	Donated Funds	Earmarked Funds	Total
Obligated	$ 11,060,235	$ 44,414	$ 308,060	$ 11,412,709
Unobligated Available	702,435	34,647	50,415	787,497
Unobligated Unavailable	91,938	26	2,204	94,168
Less: Budgetary Non-FBWT	-	(61,305)	-	(61,305)
Total FBWT	$ 11,854,608	$ 17,782	$ 360,679	$ 12,233,069

The Donations Account includes amounts donated to NSF from all sources. Funds in the Donations Account may be used to further one or more of the general purposes of the Foundation. The donated funds are held as Fund Balance With Treasury (FBWT) or as non-FBWT with budgetary resources, which represent cash held outside of Treasury at commercial banks in interest-bearing accounts. These funds are

collateralized up to $83.2 million by the bank, through the Federal Reserve Bank of St. Louis, in accordance with Treasury Financial Manual Volume 1, Chapter 6-9000. Unobligated Unavailable balances include recoveries of prior year obligations and other unobligated expired funds that are unavailable for new obligations.

In FY 1999, in accordance with P.L. 105-277, a special fund named H-1B Nonimmigrant Petitioner Fees Account was established in the general fund of the U.S. Treasury. These funds are considered Earmarked Funds and are not included in Appropriated Funds. The funds represent fees collected for each petition for nonimmigrant status. Under the law, NSF was prescribed a percentage of these fees for specific programs.

Note 3. Advances

Intragovernmental

As of September 30, 2010 and 2009, Intragovernmental Advances were $9.8 million and $19.2 million respectively.

Public

See Note 1K for additional information describing a change in report presentation methodlogy for the grant accrual.

(Amounts in Thousands)	2010	2009
Advances to Grantees	$ -	$ 26,699
Advances to Contractors	-	13,194
Total Advances to the Public	$ -	$ 39,893

Note 4. General Property, Plant and Equipment, Net

The components of General Property, Plant and Equipment as of September 30, 2010 and 2009 were:

(Amounts in Thousands)	2010		
	Acquisition Cost	Accumulated Depreciation	Net Book Value
Equipment	$ 131,182	$ (104,549)	$ 26,633
Aircraft and Satellites	138,487	(138,487)	-
Buildings and Structures	279,361	(92,201)	187,160
Leasehold Improvements	8,798	(4,904)	3,894
Construction in Progress	33,470	-	33,470
Internal Use Software	7,091	(7,091)	-
Software in Development	25,597	-	25,597
Total PP&E	$ 623,986	$ (347,232)	$ 276,754

(Amounts in Thousands)

	2009		
	Acquisition Cost	Accumulated Depreciation	Net Book Value
Equipment	$ 119,427	$ (99,595)	$ 19,832
Aircraft and Satellites	138,487	(138,487)	-
Buildings and Structures	278,208	(85,063)	193,145
Leasehold Improvements	7,173	(3,618)	3,555
Construction in Progress	26,326	-	26,326
Internal Use Software	7,091	(6,929)	162
Software in Development	18,369	-	18,369
Total PP&E	$ 595,081	$ (333,692)	$ 261,389

Note 5. Property, Plant and Equipment in the Custody of Other Entities

As explained in Note 1H, in the Assets Owned by NSF in the Custody of Other Entities section, NSF received a ruling from FASAB on accounting for PP&E owned by NSF but in the custody of and used by others. The FASAB guidance requires PP&E in the custody of others be excluded from NSF PP&E as defined in the SFFAS No. 6, *Accounting for Property, Plant and Equipment.* NSF is required to disclose the dollar amount of NSF PP&E held by others in the footnotes based on information contained in the most recently issued audited financial statements of the organization holding the assets.

At September 30, 2010, there were 32 colleges or universities and 33 commercial entities that held property titled to NSF. None of the colleges, universities, or commercial entities reported NSF-titled property separately.

The amount of PP&E owned by NSF but in the custody of an FFRDC is identified in the table below. In some cases, FFRDCs operate on a fiscal year end basis other than September 30. If NSF PP&E is not separately stated on the FFRDC's audited financial statements or the FFRDC is not audited, the related amounts are annotated as Not Available (N/A) in the table.

(Amounts in Thousands)

Federally Funded Research and Development Centers	Amount	Fiscal Year Ending
National Astronomy & Ionosphere Center (Cornell) - NAIC	$ N/A	6/30
University Corporation for Atmospheric Research - UCAR	164,629	9/30
Association of Universities for Research in Astronomy, Inc. - AURA	N/A	9/30
National Radio Astronomy Observatory - AUI	N/A	9/30

Note 6. Leases

NSF leases its headquarter buildings under an operating lease with the GSA. The following is a schedule of future minimum lease payments for the headquarters buildings. The current leases are active through FY 2014.

(Amounts in Thousands)

Fiscal Year	Operating Lease Amount
2011	$ 21,843
2012	22,172
2013	20,716
2014	4,804
Total Minimum Lease Payments	$ 69,535

In addition to the headquarters buildings, NSF occupies common spaces with other federal agencies overseas through the State Departments International Cooperative Administrative Support Services (ICASS) system. NSF uses ICASS in Beijing, Paris, and Tokyo for residential and nonresidential space. ICASS is a voluntary cost distribution system and the agreement to receive ICASS services is through an annual Memorandum of Understanding (MOU) between NSF and the State Department. Additionally, NSF occupies residential space in Tokyo and office space in Denver, Colorado. The agreement to occupy space in Denver, Colorado, is an annual MOU with the U.S. Department of Commerce and the lease to occupy residential space in Tokyo is a cancellable agreement between the U.S. Government and the lessor. All NSF leases are cancellable and/or for a period not more than a year.

Note 7. Earmarked Funds

In FY 1999, Title IV of the American Competitiveness and Workforce Improvement Act of 1998 (P.L. 105-277) established an H-1B Nonimmigrant petitioner account in the General Fund of the U.S. Treasury. Funding is established from fees collected for alien, nonimmigrant status petitions. This law requires that a prescribed percentage of the funds in the account be made available to NSF for the following activities:

- Computer Science, Engineering, and Mathematics Scholarship (CSEMS)
- Grants for Mathematics, Engineering, or Science Enrichment Courses
- Systemic Reform Activities

The H-1B Nonimmigrant Petitioner fees are available to the Director of NSF until expended. The funds may be used for scholarships to low income students, or to carry out a direct or matching grant program to support private and/or public partnerships in K–12 education. The H-1B Fund is set up as a permanent, indefinite appropriation by NSF. These funds are included in the President's budget. The earmarked funds are accounted for in a separate Treasury Account Fund Symbol (TAFS) and the budgetary resources for the earmarked fund are recorded as Appropriated Earmarked Receipts Transferred In, and reported according to the guidance for earmarked funds in SFFAS No. 27, *Identifying and Reporting Earmarked Funds.*

(Amounts in Thousands)	2010 Earmarked Funds	2009 Earmarked Funds
Balance Sheet as of September 30, 2010 and 2009		
Fund Balance with Treasury	$ 338,036	$ 360,679
Advances	-	403
Total Assets	338,036	361,082
Other Liabilities	2,582	5,210
Total Liabilities	2,582	5,210
Cumulative Results of Operations	335,454	355,872
Total Liabilities and Net Position	$ 338,036	$ 361,082
Statement of Net Cost for the Years Ended September 30, 2010 and 2009		
Program Costs	$ 111,639	$ 97,425
Less: Earned Revenues	-	-
Net Cost of Operations	$ 111,639	$ 97,425
Statement of Changes in Net Position For the Years Ended September 30, 2010 and 2009		
Net Position Beginning of Period	$ 355,872	$ 364,640
Appropriated Earmarked Receipts Transferred In	91,221	88,657
Net Cost of Operation	(111,639)	(97,425)
Change in Net Position	(20,418)	(8,768)
Net Position End of Period	$ 335,454	$ 355,872

Note 8. Statement of Net Cost

Major Program Descriptions

The Statement of Net Cost presents the NSF-wide expenses incurred by the Foundation. The presentation of the NSF's net cost by strategic goal is included in this note. The Statement of Net Cost reflects the Foundation's strategic framework set forth in NSF's strategic plan, *Investing in America's Future: Strategic Plan FY 2006–2011*.

The strategic goals outlined are: Discovery, Learning, and Research Infrastructure. NSF's fourth strategic goal, Stewardship, focuses on NSF's administrative and management activities. In pursuit of its mission, NSF makes investments in Discovery, Learning, and Research Infrastructure. These goals reflect outcomes at the heart of the research enterprise: fostering research that will advance the frontiers of knowledge (Discovery); cultivating a world-class, broadly inclusive science and engineering workforce

and expanding the scientific literacy of all citizens (Learning); and building the nation's research capability through critical investments in advanced instrumentation, facilities, cyberinfrastrucure, and experimental tools (Research Infrastructure).

Net costs are presented for the three primary appropriations that fund NSF's programmatic activities (Research and Related Activities, Education and Human Resources, and Major Research Equipment and Facilities Construction) and for donations and earmarked funds that are classified in the Statement of Net Cost and its related footnote as "Costs Not Assigned To Other Programs." Stewardship costs are prorated among them. Stewardship costs include expenditures incurred from the AOAM, NSB, and OIG appropriations. These appropriations support salaries and benefits of persons employed at NSF; general operating expenses, including support of NSF's information systems technology; staff training, audit and OIG activities; and OPM and DOL benefits costs paid on behalf of NSF.

At September 30, 2010, approximately 96 percent of NSF's expenses were directly related to the Discovery, Learning, and Research Infrastructure strategic outcome goals. At September 30, 2009, approximately 95 percent of NSF's expenses were directly related to the Discovery, Learning, and Research Infrastructure strategic outcome goals. Net costs for each strategic goal is determined by allocating total costs by the percentage for which obligations for each strategic outcome goal accounted for total obligations in the current year. All NSF earmarked funds are allocated to the Learning strategic goal. The remaining portion of NSF's expenses relate to the Stewardship strategic goal.

At September 30, 2010 and 2009, costs related to the Stewardship activities totaled $312.3 million and $332.6 million, respectively. All Stewardship costs are prorated to the other three strategic goals based on the percentage that each Strategic Goal's expenditures account for the total expenditures of appropriated, trust, and earmarked funds.

In accordance with OMB Circular A-136, costs incurred for services provided by other federal entities are reported in the full costs of NSF programs and are identified as "federal." All earned revenues are offsetting collections provided through reimbursable agreements with other federal entities and are retained by NSF. Earned revenues are recognized when the related program or administrative expenses are incurred and are deducted from the full cost of the programs to arrive at the net cost of operating NSF's programs. NSF applies a cost recovery fee on other federal entities consistent with applicable legislation and Government Accountability Office decisions. NSF recovers the costs incurred in the management, administration, and oversight of activities authorized and/or funded by interagency agreements where NSF is the performing agency.

Intragovernmental and Public Costs and Earned Revenue by Strategic Goal

(Amounts in Thousands)		2010 Federal	2010 Public	2010 Total
Research and Related Activities				
Discovery	$	114,507	3,048,494	3,163,001
Learning		29,610	788,296	817,906
Research Infrastructure		68,445	1,822,193	1,890,638
Total Research and Related Activities		212,562	5,658,983	5,871,545
Less: Earned Revenue		(93,667)	-	(93,667)
Net Research and Related Activities		118,895	5,658,983	5,777,878
Education and Human Resources				
Discovery	$	2,003	415,717	417,720
Learning		518	107,498	108,016
Research Infrastructure		1,198	248,488	249,686
Total Education and Human Resources		3,719	771,703	775,422
Less: Earned Revenue		(8,859)	-	(8,859)
Net Education and Human Resources		(5,140)	771,703	766,563
Major Research Equipment and Facilities Construction				
Discovery	$	3,579	92,761	96,340
Learning		926	23,987	24,913
Research Infrastructure		2,140	55,447	57,587
Total Major Research Equipment and Facilities Construction		6,645	172,195	178,840
Less: Earned Revenue		-	-	-
Net Major Research Equipment and Facilities Construction		6,645	172,195	178,840
Costs Not Assigned To Other Programs				
Discovery	$	6	5,305	5,311
Learning		128	115,376	115,504
Research Infrastructure		58	50,952	51,010
Total Costs Not Assigned To Other Programs		192	171,633	171,825
Less: Earned Revenue		-	-	-
Net Costs Not Assigned To Other Programs		192	171,633	171,825
Net Cost of Operations	$	120,592	6,774,514	6,895,106

(Amounts in Thousands)		2009 Federal	2009 Public	2009 Total
Research and Related Activities				
Discovery	$	142,555	2,819,698	2,962,253
Learning		32,990	652,536	685,526
Research Infrastructure		65,787	1,301,252	1,367,039
Total Research and Related Activities		241,332	4,773,486	5,014,818
Less: Earned Revenue		(100,934)	-	(100,934)
Net Research and Related Activities		140,398	4,773,486	4,913,884
Education and Human Resources				
Discovery	$	4,018	466,363	470,381
Learning		930	107,926	108,856
Research Infrastructure		1,854	215,220	217,074
Total Education and Human Resources		6,802	789,509	796,311
Less: Earned Revenue		(8,593)	-	(8,593)
Net Education and Human Resources		(1,791)	789,509	787,718
Major Research Equipment and Facilities Construction				
Discovery	$	1,353	85,293	86,646
Learning		313	19,739	20,052
Research Infrastructure		624	39,361	39,985
Total Major Research Equipment and Facilities Construction		2,290	144,393	146,683
Less: Earned Revenue		-	-	-
Net Major Research Equipment and Facilities Construction		2,290	144,393	146,683
Costs Not Assigned To Other Programs				
Learning	$	353	101,675	102,028
Research Infrastructure		2	52,065	52,067
Total Costs Not Assigned To Other Programs		355	153,740	154,095
Less: Earned Revenue		-	-	-
Net Costs Not Assigned To Other Programs		355	153,740	154,095
Net Cost of Operations	$	141,252	5,861,128	6,002,380

Note 9. American Recovery and Reinvestment Act (ARRA) of 2009

ARRA provided NSF with two-year funding to the R&RA, EHR, and MREFC accounts in the amount of $3.0 billion. ARRA also provided NSF with 5-year funding to the OIG in the amount of $2.0 million for the purpose of audits and oversight of ARRA funds. As of September 30, 2010, and 2009, NSF obligated R&RA, EHR and MREFC ARRA funds in the amount of $3.0 billion and $2.4 billion, respectively. As of September 30, 2010, and 2009, NSF obligated OIG ARRA funds in the amount of $72.3 thousand and $18.5 thousand, respectively. For details on ARRA disbursements and reporting requirements, visit NSF's Recovery Act website at www.nsf.gov/recovery.

Note 10. Permanent Indefinite Appropriations

NSF maintains permanent indefinite appropriations for R&RA, MREFC, and EHR. The R&RA appropriation is used for polar research and operations support and for reimbursement to other federal agencies for operational and science support and logistical and other related activities for the USAP. In FY 2010 and FY 2009 the permanent indefinite appropriations for R&RA were $452.7 million and $472.2 million respectively, and are reported as current year transfers from the annual R&RA appropriation.

The MREFC appropriation supports the procurement and construction of unique national research platforms and major research equipment. In FY 2010 and FY 2009, the permanent indefinite appropriations for MREFC were $117.3 million and $152.0 million, respectively.

The EHR appropriation is used to carry out science and engineering education and human resources programs and activities. In FY 2010 and FY 2009, the permanent indefinite appropriations for EHR were $87.0 million and $55.0 million, respectively, and are reported as current year transfers from the annual EHR appropriation.

Note 11. Apportionment Categories of Obligations Incurred: Direct vs. Reimbursable Obligations

OMB Circular No. A-11, *Preparation, Submission, and Execution of the Budget*, requires direct and reimbursable obligations be reported as Category A, Category B, or Exempt from Apportionment. In FY 2010 and FY 2009, NSF's SF-132, *Apportionment and Reapportionment Schedule*, apportions all obligations incurred under Category B which is by activity, project, or object. In FY 2010 and FY 2009, direct obligations amounted to $7.7 billion and $9.0 billion, respectively, and reimbursable obligations amounted to $108.5 million and $119.3 million, respectively.

Note 12. Explanation of Differences between the Statement of Budgetary Resources and the Budget of the U.S. Government

SFFAS No. 7, *Accounting for Revenue and Other Financing Sources and Concepts for Reconciling Budgetary and Financial Accounting*, calls for explanations of material differences between amounts reported in the Statement of Budgetary Resources (SBR) and the actual balances published in the Budget of the U.S. Government (President's Budget). However, the President's Budget that will include FY 2010 actual budgetary execution information has not yet been published. The President's Budget is scheduled for publication in the spring of FY 2011 and can be found on the OMB website at http://www.whitehouse.gov/omb.

Balances reported in the FY 2009 SBR and the related President's Budget are shown in a table below for Budgetary Resources, Obligations Incurred, Unobligated Balance–Unavailable, and any related differences. The differences reported are due to differing reporting requirements for expired and

unexpired appropriations between the Treasury guidance used to prepare the SBR and the OMB guidance used to prepare the President's Budget. The SBR includes both unexpired and expired appropriations, while the President's Budget discloses only unexpired budgetary resources that are available for new obligations.

(Amounts in Thousands)	2009		
	Budgetary Resources	Obligations Incurred	Unobligated Balance - Unavailable
Combined Statement of Budgetary Resources	$ 10,022,609	$ 9,140,944	$ 94,168
Budget of the U.S. Government	$ 9,926,803	$ 9,135,866	$ 3,440
Difference	$ 95,806	$ 5,078	$ 90,728

Note 13. Undelivered Orders at the End of the Period

In accordance with SFFAS No. 7, *Accounting for Revenue and Other Financing Sources*, the amount of budgetary resources obligated for undelivered orders for the periods ended September 30, 2010, and 2009, amounted to $11.9 billion and $11.1 billion, respectively.

Note 14. Related Party Transactions

NSB members may be affiliated with institutions that are eligible to receive grants and awards from NSF. NSB does not review all NSF award actions; however the following require NSB approval:

- Proposed awards, Requests for Proposals (RFPs), and solicitations that meet or exceed a threshold where the average annual award amount is 1 percent or more of the awarding Directorate's prior year plan or $3.0 million, whichever is greater.
- New programs that represent a substantial investment of program resources, involve sensitive political or policy issues, or are to be funded as an ongoing Foundation-wide activity.
- Major construction projects.

The Director's Review Board (DRB) reviews proposed actions for evaluation adequacy and documentation and compliance with Foundation policies, procedures and strategies. Items requiring DRB action include large awards and RFPs that meet or exceed a threshold of 2.5 percent of the prior year Division or Subactivity Plan. In addition, the DRB reviews all items requiring NSB action as well as NSB information items prior to submission.

Per NSF policy, employees and NSB members may not participate in reviewing applications that involve organizations in which they have a financial interest. However, NSF may fund awards meeting the above NSB and DRB requirements to institutions affiliated with NSB members, and these transactions are being disclosed as Related Party.

In FY 2010, the DRB approved two Related Party awards totaling a not to exceed amount of $49.9 million, neither of which required NSB review. In FY 2009, the DRB approved three Related Party awards totaling a not to exceed amount of $132.5 million, of which one for $105.0 million was also approved by the NSB.

Note 15. Reconciliation of Net Cost of Operations to Budget

(Amounts in Thousands)	2010	2009
Resources Used To Finance Activities		
Budgetary Resources Obligated		
Obligations Incurred	$ 7,823,982	$ 9,140,944
Less: Spending Authority from Offsetting Collections and Recoveries	(164,274)	(180,499)
Obligations Net of Offsetting Collections and Recoveries	7,659,708	8,960,445
Less: Offsetting Receipts	(55,459)	(2,091)
Net Obligations	7,604,249	8,958,354
Other Resources		
Imputed Financing	13,066	10,149
Other Resources	291	(704)
Net Other Resources Used to Finance Activities	13,357	9,445
Total Resources Used to Finance Activities	**7,617,606**	**8,967,799**
Resources Used to Finance Items Not Part of the Net Cost of Operations		
Change in Budgetary Resources Obligated for Goods, Services and Benefits Ordered but Not Yet Provided	(763,350)	(2,977,516)
Resources that Fund Expenses Recognized in Prior Periods	(20)	44
Budgetary Offsetting Collections and Receipts that Do Not Affect Net Cost of Operations	55,459	2,091
Resources that Finance the Acquisition of Assets	(29,673)	(12,120)
Other Resources or Adjustments to Net Obligated Resources that Net Cost of Operations	(737,584)	(2,987,501)
Total Resources Used to Finance Net Cost of Operations	**6,880,022**	**5,980,298**
Components of the Net Cost of Operations that will not Require or Generate Resources in the Current Period		
Components Requiring or Generating Resources in Future Periods		
Other	591	1,548
Total Components of Net Cost of Operations that will Require or Generate Resources in Future Periods	591	1,548
Components Not Requiring or Generating Resources		
Depreciation and Amortization	14,920	19,590
Other	(427)	944
Total Components of Net Cost of Operations that will not Require or Generate Resources	14,493	20,534
Total Components of Net Cost of Operations that Will Not Require or Generate Resources in the Current Period	**15,084**	**22,082**
Net Cost of Operations	$ 6,895,106	$ 6,002,380

Required Supplementary Stewardship Information

Stewardship Investments

For the Years Ended September 30, 2010 and 2009

Stewardship Investments
Research and Human Capital

(Dollar Amounts in Thousands)

Research and Human Capital Activities

	2010	2009	2008	2007	2006
Basic Research	$ 5,249,579	4,413,407	4,449,062	4,195,444	3,682,266
Applied Research	416,008	498,544	409,516	432,820	339,757
Education and Training	1,019,776	867,333	911,369	808,642	1,378,472
Non-Investing Activities	312,269	332,623	283,245	275,993	321,085
Total Research & Human Capital Activities	$ 6,997,632	$ 6,111,907	$ 6,053,192	$ 5,712,899	$ 5,721,580

Inputs, Outputs and/or Outcomes

Research and Human Capital Activities

Investments In:					
Universities	$ 5,103,835	$ 4,340,871	$ 4,189,050	$ 4,016,101	$ 3,994,682
Industry	286,419	253,114	251,695	208,696	199,523
Federal Agencies	203,635	219,367	256,186	203,759	221,002
Small Business	268,697	209,343	224,793	220,602	218,334
Federally Funded R&D Centers	246,217	232,319	229,259	335,731	299,802
Non-Profit Organizations	408,441	381,882	444,236	421,775	428,648
Other	480,388	475,011	457,973	306,235	359,589
	$ 6,997,632	$ 6,111,907	$ 6,053,192	$ 5,712,899	$ 5,721,580
Support To:					
Scientists	$ 568,140	$ 695,389	$ 512,147	$ 496,431	$ 473,457
Postdoctoral Programs	188,665	252,639	164,519	163,896	158,528
Graduate Students	602,990	933,063	615,621	585,308	544,513
	$ 1,359,795	$ 1,881,091	$ 1,292,287	$ 1,245,635	$ 1,176,498
Outputs & Outcomes:					
Number of:					
Awards Actions	24,000	28,000	23,000	23,000	22,000
Senior Researchers	55,000	54,000	43,000	41,000	32,000
Other Professionals	15,000	15,000	12,000	13,000	11,000
Postdoctoral Associates	7,000	8,000	6,000	6,000	5,000
Graduate Students	40,000	54,000	37,000	35,000	26,000
Undergraduate Students	34,000	33,000	24,000	23,000	27,000
K-12 Students	59,000	14,000	13,000	11,000	8,000
K-12 Teachers	85,000	63,000	62,000	61,000	59,000

NSF's mission is to support basic scientific research and research fundamental to the engineering process as well as science and engineering education programs. NSF's Stewardship Investments fall principally into the categories of Research and Human Capital. For expenses incurred under the Research category, the majority of NSF funding is devoted to basic research, with a relatively small share going to applied research. This funding supports both the conduct of research and the necessary supporting infrastructure, including state-of-the-art instrumentation, equipment, computing resources, and multi-user facilities such as digital libraries, observatories, and research vessels and aircraft. Basic and applied research expenses are determined by prorating the program costs of NSF's strategic goals on Research Infrastructure and Discovery reported on the Statement of Net Cost. The proration uses the basic and applied research percentages of total estimated research and development obligations reported in the current year Budget Request to OMB. The actual numbers are not available until later in the following fiscal year. Education and Training costs equate to NSF's third strategic goal, Learning, and the costs related to noninvesting activities reflect the fourth strategic goal, Stewardship.

The data provided for scientists, postdoctoral associates, and graduate students are obtained from NSF's proposal system and is information reported by each Principal Investigator. The number of award actions are actual values from NSF's Enterprise Information System. The remaining outputs and outcomes are estimates of the total FY 2010 amounts obtained annually from the NSF Directorates. These estimates are reported in the annual Budget Request to OMB.

NSF's Human Capital investments focus principally on education and training, toward a goal of creating a diverse, internationally competitive, and globally engaged workforce of scientists, engineers, and well-prepared citizens. NSF supports activities to improve formal and informal science, mathematics, engineering, and technology education at all levels, as well as public science literacy projects that engage people of all ages in life-long learning.

Required Supplementary Information

Deferred Maintenance
For the Years Ended September 30, 2010 and 2009

Deferred Maintenance

NSF performs condition assessment surveys in accordance with FASAB Standards No. 6 and No. 14 for capitalized PP&E to determine if any maintenance is needed to keep an asset in an acceptable condition or restore an asset to a specific level of performance. NSF considers deferred maintenance to be any maintenance that is not performed on schedule, unless it is determined from the condition of the asset that scheduled maintenance does not have to be performed. Deferred maintenance also includes any other type of maintenance that, if not performed, would render the PP&E nonoperational. Circumstances such as nonavailability of parts or funding are considered reasons for deferring maintenance.

NSF considered whether any scheduled maintenance necessary to keep fixed assets of the agency in an acceptable condition was deferred at the end of the period for fiscal years 2010 and 2009. Assets deemed to be in excellent, good, or fair condition are considered to be in acceptable condition. Assets in poor condition are in unacceptable condition and the deferred maintenance required to get them to an acceptable condition are reported. NSF determines the condition of an asset in accordance with standards comparable to those used in the private industry. Due to the environment and remote location of Antarctica, all deferred maintenance on assets in poor condition is considered critical in order to maintain operational status.

At September 30, 2010, NSF determined that scheduled maintenance on two items of Antarctic capital equipment in poor condition was not completed and was deferred or delayed for a future period. The largest dollar amount of deferred maintenance for any single item in poor condition approximated $43.0 thousand. The items are heavy mobile equipment, are considered critical to NSF operations, and are estimated to require $50.7 thousand in maintenance.

At September 30, 2009, NSF determined that scheduled maintenance on seven items of Antarctic capital equipment in poor condition were not completed and were deferred or delayed for a future period. The largest dollar amount of deferred maintenance for any single item in poor condition approximated $26.5 thousand. The items included light and heavy mobile equipment. All items were considered critical to NSF operations and were estimated to require $89.1 thousand in maintenance.

Required Supplementary Information

Budgetary Resources by Major Budget Accounts

In the following table, NSF budgetary information for the fiscal years ended September 30, 2010 and 2009, as presented in the Statement of Budgetary Resources, is disaggregated for each of NSF's major budget accounts. ARRA funds are shown in a separate schedule.

Consolidated Appropriations Act Funds Combining Statement of Budgetary Resources (page 1 of 2)

2010
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG, AOAM, and NSB	Special and Donated	Total
SCHEDULE OF BUDGETARY RESOURCES						
Unobligated Balance - Brought Forward, October 1	$ 111,092	20,107	57,730	5,106	87,292	$ 281,327
Recoveries of Prior Year Obligations	36,706	12,597	50	3,602	3,127	56,082
Budget Authority						
Appropriation	5,617,920	872,760	117,290	318,540	145,749	7,072,259
Spending Authority from Offsetting Collections						
Earned						
Collected	83,290	11,196	-	5,699	-	100,185
Change in Receivable from Federal Sources	5,499	(2,799)	-	(307)	-	2,393
Change in Unfilled Customer Orders						
Advance Received	2,080	(4,141)	-	(95)	-	(2,156)
Without Advance from Federal Sources	3,864	1,844	-	(11)	-	5,697
Subtotal - Budget Authority	5,712,653	878,860	117,290	323,826	145,749	7,178,378
Nonexpenditure Transfers, Net -						
Anticipated and Actual	(54,000)	-	-	-	-	(54,000)
Permanantly Not Available	(22,744)	(7,672)	-	(3,266)	-	(33,682)
Total Budgetary Resources	**$ 5,783,707**	**903,892**	**175,070**	**329,268**	**236,168**	**$ 7,428,105**
Status of Budgetary Resources						
Obligations Incurred						
Direct	$ 5,616,384	872,788	165,898	319,849	140,389	$ 7,115,308
Reimbursable	97,010	6,203	-	5,239	-	108,452
Total Obligations Incurred	5,713,394	878,991	165,898	325,088	140,389	7,223,760
Unobligated Balance - Apportioned	967	56	9,169	332	92,651	103,175
Unobligated Balance - Not Available	69,346	24,845	3	3,848	3,128	101,170
Total Status Of Budgetary Resources	**$ 5,783,707**	**903,892**	**175,070**	**329,268**	**236,168**	**$ 7,428,105**

Consolidated Appropriations Act Funds Combining Statement of Budgetary Resources (page 2 of 2)

2010
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG, AOAM, and NSB	Special and Donated	Total
Change in Obligated Balances						
Obligated Balance, Net						
Unpaid Obligations - Brought forward, October 1	7,102,642	1,407,920	188,101	76,948	352,475	9,128,086
Less: Uncollected Customer Payments from Federal Sources Brought Forward, October 1	(81,461)	(8,043)	-	(711)	-	(90,215)
Total Unpaid Obligated Balance, Net	7,021,181	1,399,877	188,101	76,237	352,475	9,037,871
Obligations Incurred	5,713,391	878,992	165,898	325,089	140,390	7,223,760
Less: Gross Outlays	(4,938,052)	(760,532)	(121,733)	(314,795)	(167,677)	(6,302,789)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(36,706)	(12,597)	(50)	(3,601)	(3,128)	(56,082)
Change in Uncollected Customer Payments from Federal Sources	(9,362)	955	-	317	-	(8,090)
Subtotal	$ 7,750,452	1,506,695	232,216	83,247	322,060	$ 9,894,670
Obligated Balance, Net - End of Period						
Unpaid Obligations	7,841,275	1,513,783	232,216	83,641	322,060	9,992,975
Less: Uncollected Customer Payments from Federal Sources	(90,823)	(7,088)	-	(394)	-	(98,305)
Total Unpaid Obligated Balance, Net - End of Period	$ 7,750,452	1,506,695	232,216	83,247	322,060	$ 9,894,670
Net Outlays						
Gross Outlays	4,938,052	760,532	121,733	314,795	167,677	6,302,789
Less: Offsetting Collections	(85,371)	(7,055)	-	(5,604)	-	(98,030)
Less: Distributed Offsetting Receipts	-	-	-	-	(55,459)	(55,459)
Net Outlays	**$ 4,852,681**	**753,477**	**121,733**	**309,191**	**112,218**	**$ 6,149,300**

ARRA Funds Combining Statement of Budgetary Resources (page 1 of 2)

2010
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG	Total
Budgetary Resources					
Unobligated Balance - Brought Forward, October 1	$ 437,356	15,000	146,000	1,982	$ 600,338
Recoveries of Prior Year Obligations	2,054	19	-	-	2,073
Budget Authority					
Appropriation	-	-	-	-	-
Spending Authority from Offsetting Collections					
Earned					
Collected	-	-	-	-	-
Change in Receivable from Federal Sources	-	-	-	-	-
Change in Unfilled Customer Orders					
Advance Received	-	-	-	-	-
Without Advance from Federal Sources	-	-	-	-	-
Subtotal - Budget Authority	-	-	-	-	-
Nonexpenditure Transfers, Net -					
Anticipated and Actual	-	-	-	-	-
Permanantly Not Available	-	-	-	-	-
Total Budgetary Resources	**$ 439,410**	**15,019**	**146,000**	**1,982**	**$ 602,411**
Status of Budgetary Resources					
Obligations Incurred					
Direct	$ 439,167	15,000	146,000	55	$ 600,222
Reimbursable	-	-	-	-	-
Total Obligations Incurred	439,167	15,000	146,000	55	600,222
Unobligated Balance - Apportioned	-	-	-	1,927	1,927
Unobligated Balance - Not Available	243	19	-	-	262
Total Status Of Budgetary Resources	**$ 439,410**	**15,019**	**146,000**	**1,982**	**$ 602,411**

ARRA Funds Combining Statement of Budgetary Resources (page 2 of 2)

2010
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG	Total
Change in Obligated Balances					
Obligated Balance, Net					
Unpaid Obligations - Brought forward, October 1	2,035,860	84,977	254,000	1	2,374,838
Less: Uncollected Customer Payments from Federal Sources Brought Forward, October 1	-	-	-	-	-
Total Unpaid Obligated Balance, Net	2,035,860	84,977	254,000	1	2,374,838
Obligations Incurred	439,167	15,000	146,000	55	600,222
Less: Gross Outlays	(528,468)	(6,954)	(35,342)	(56)	(570,820)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(2,055)	(18)	-	-	(2,073)
Change in Uncollected Customer Payments from Federal Sources	-	-	-	-	-
Subtotal	$ 1,944,504	93,005	364,658	-	$ 2,402,167
Obligated Balance, Net - End of Period					
Unpaid Obligations	1,944,504	93,005	364,658	-	2,402,167
Less: Uncollected Customer Payments from Federal Sources	-	-	-	-	-
Total Unpaid Obligated Balance, Net - End of Period	$ 1,944,504	93,005	364,658	-	$ 2,402,167
Net Outlays					
Gross Outlays	528,468	6,954	35,342	56	570,820
Less: Offsetting Collections	-	-	-	-	-
Less: Distributed Offsetting Receipts	-	-	-	-	-
Net Outlays	**$ 528,468**	**6,954**	**35,342**	**56**	**$ 570,820**

Omnibus Funds Combining Statement of Budgetary Resources (page 1 of 2)

2009
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG, AOAM, and NSB	Special and Donated	Total
Budgetary Resources						
Unobligated Balance - Brought Forward, October 1	$ 57,084	18,855	66,433	6,342	94,856	$ 243,570
Recoveries of Prior Year Obligations	44,163	12,953	43	2,725	2,229	62,113
Budget Authority						
Appropriation	5,183,100	845,260	152,010	310,030	136,081	6,626,481
Spending Authority from Offsetting Collections:						
Earned						
Collected	95,864	8,582	-	5,106	9	109,561
Change in Receivable from Federal Sources	37	(414)	-	446	-	69
Change in Unfilled Customer Orders						
Advance Received	(50,588)	(2,293)	-	-	-	(52,881)
Without Advance from Federal Sources	58,450	3,191	-	(4)	-	61,637
Subtotal - Budget Authority	5,286,863	854,326	152,010	315,578	136,090	6,744,867
Nonexpenditure Transfers, Net -						
Anticipated and Actual	3,066	-	-	148	-	3,214
Permanantly Not Available	(20,857)	(9,296)	-	(3,002)	-	(33,155)
Total Budgetary Resources	**$ 5,370,319**	**876,838**	**218,486**	**321,791**	**233,175**	**$ 7,020,609**
Status of Budgetary Resources						
Obligations Incurred						
Direct	$ 5,154,513	847,670	160,756	311,187	145,883	$ 6,620,009
Reimbursable	104,714	9,061	-	5,498	-	119,273
Total Obligations Incurred	5,259,227	856,731	160,756	316,685	145,883	6,739,282
Unobligated Balance - Apportioned	44,290	23	57,710	74	85,062	187,159
Unobligated Balance - Not Available	66,802	20,084	20	5,032	2,230	94,168
Total Status of Budgetary Resources	**$ 5,370,319**	**876,838**	**218,486**	**321,791**	**233,175**	**$ 7,020,609**

Omnibus Funds Combining Statement of Budgetary Resources (page 2 of 2)

2009
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG, AOAM, and NSB	Special and Donated	Total
Change in Obligated Balances						
Obligated Balance, Net						
Unpaid Obligations - Brought forward, October 1	6,558,083	1,322,440	176,703	75,722	355,073	8,488,021
Less: Uncollected Customer Payments from Federal Sources Brought Forward, October 1	(22,973)	(5,266)	-	(270)	-	(28,509)
Total Unpaid Obligated Balance, Net	6,535,110	1,317,174	176,703	75,452	355,073	8,459,512
Obligations Incurred	5,259,228	856,732	160,755	316,683	145,884	6,739,282
Less: Gross Outlays	(4,670,507)	(758,299)	(149,314)	(312,731)	(146,253)	(6,037,104)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(44,163)	(12,953)	(43)	(2,725)	(2,229)	(62,113)
Change in Uncollected Customer Payments from Federal Sources	(58,487)	(2,777)	-	(442)	-	(61,706)
Subtotal	$ 7,021,181	1,399,877	188,101	76,237	352,475	$ 9,037,871
Obligated Balance, Net - End of Period						
Unpaid Obligations	7,102,642	1,407,920	188,101	76,948	352,475	9,128,086
Less: Uncollected Customer Payments from Federal Sources	(81,461)	(8,043)	-	(711)	-	(90,215)
Total Unpaid Obligated Balance, Net - End of Period	$ 7,021,181	1,399,877	188,101	76,237	352,475	$ 9,037,871
Net Outlays						
Gross Outlays	4,670,507	758,299	149,314	312,731	146,253	6,037,104
Less: Offsetting Collections	(45,276)	(6,289)	-	(5,106)	(9)	(56,680)
Less: Distributed Offsetting Receipts	-	-	-	-	(2,091)	(2,091)
Net Outlays	**$ 4,625,231**	**752,010**	**149,314**	**307,625**	**144,153**	**$ 5,978,333**

ARRA Funds Combining Statement of Budgetary Resources (page 1 of 2)

2009
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG	Total
Budgetary Resources					
Unobligated Balance - Brought Forward, October 1	$ -	-	-	-	$ -
Recoveries of Prior Year Obligations	-	-	-	-	-
Budget Authority					
Appropriation	2,500,000	100,000	400,000	2,000	3,002,000
Spending Authority from Offsetting Collections					
Earned					
Collected	-	-	-	-	-
Change in Receivable from Federal Sources	-	-	-	-	-
Change in Unfilled Customer Orders					
Advance Received	-	-	-	-	-
Without Advance from Federal Sources	-	-	-	-	-
Subtotal - Budget Authority	2,500,000	100,000	400,000	2,000	3,002,000
Nonexpenditure Transfers, Net - Anticipated and Actual	-	-	-	-	-
Permanantly Not Available	-	-	-	-	-
Total Budgetary Resources	**$ 2,500,000**	**100,000**	**400,000**	**2,000**	**$ 3,002,000**
Status of Budgetary Resources					
Obligations Incurred					
Direct	$ 2,062,644	85,000	254,000	18	$ 2,401,662
Reimbursable	-	-	-	-	-
Total Obligations Incurred	2,062,644	85,000	254,000	18	2,401,662
Unobligated Balance - Apportioned	437,356	15,000	146,000	1,982	600,338
Unobligated Balance - Not Available	-	-	-	-	-
Total Status Of Budgetary Resources	**$ 2,500,000**	**100,000**	**400,000**	**2,000**	**$ 3,002,000**

ARRA Funds Combining Statement of Budgetary Resources (page 2 of 2)

2009
(Amounts in Thousands)

	Research and Related	Education	Major Research Equipment	OIG	Total
Change in Obligated Balances					
Obligated Balance, Net					
Unpaid Obligations - Brought forward, October 1	-	-	-	-	-
Less: Uncollected Customer Payments from Federal Sources Brought Forward, October 1	-	-	-	-	-
Total Unpaid Obligated Balance, Net	-	-	-	-	-
Obligations Incurred	2,062,644	85,000	254,000	18	2,401,662
Less: Gross Outlays	(26,784)	(23)	-	(17)	(26,824)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	-	-	-	-	-
Change in Uncollected Customer Payments from Federal Sources	-	-	-	-	-
Subtotal	$ 2,035,860	84,977	254,000	1	$ 2,374,838
Obligated Balance, Net - End of Period					
Unpaid Obligations	2,035,860	84,977	254,000	1	2,374,838
Less: Uncollected Customer Payments from Federal Sources	-	-	-	-	-
Total Unpaid Obligated Balance, Net - End of Period	$ 2,035,860	84,977	254,000	1	$ 2,374,838
Net Outlays					
Gross Outlays	26,784	23	-	17	26,824
Less: Offsetting Collections	-	-	-	-	-
Less: Distributed Offsetting Receipts	-	-	-	-	-
Net Outlays	**$ 26,784**	**23**	**-**	**17**	**$ 26,824**

Chapter 3: Appendices

Appendix 1: Summary of Financial Statement Audit and Management Assurances

Table 1. Summary of Financial Statement Audit

Audit Opinion	***Unqualified***				
Restatement	***No***				
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)		
	Agency	Auditor
Overall Substantial Compliance	***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
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 contracts[1]. 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 contact 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 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

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CHALLENGE: Ensuring Proper Stewardship of ARRA Funds *a. Spending ARRA funds expeditiously while ensuring accountability*	**NSF's Significant Actions Taken in FY 2010** 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. Designed and implemented an agency practice of monitoring ARRA awardee expenditures ("burn rate"). 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. 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. 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.
	NSF's Anticipated Next Steps Continue the process of monitoring expenditures per the "burn rate" terms and conditions until all ARRA awards reach the 12-month milestone. Review the "burn rate" process for potential improvements based on feedback and insights gathered from the initial set of notifications to NSF awardee institutions. Continue the above-described recipient reporting process, reviewing for potential improvements, and incorporating revised OMB guidance as appropriate.
b. Job creation and retention	**NSF's Significant Actions Taken in FY 2010** Updated the NSF's *American Recovery and Reinvestment Act Recipient Reporting Data Quality Assurance Plan* 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. Updated and issued guidance to grantees that incorporates the jobs reporting guidance requirements from OMB. 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. 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,

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	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.
	NSF's Anticipated Next Steps 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. Continue tracking, reporting, and validating job creation and retention data until ARRA awards are completed and closed. 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.
c. ARRA funds to support the Academic Research Infrastructure Program	**NSF's Significant Actions Taken in FY 2010** 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. 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. 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. 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. Instituted a practice of clearing ARI program documents including the solicitation, Frequently Asked Questions (FAQs), and the program's terms and conditions through OMB. 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. 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.
	NSF's Anticipated Next Steps 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. Design and facilitate sub-recipient approval process in accordance with the terms and conditions of certain ARI awards and

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	NSF policies and procedures. Develop a monitoring strategy that will leverage agency expertise as needed in areas such as construction and infrastructure.
d. ARRA funds to support MREFC projects	**NSF's Significant Actions Taken in FY 2010** 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. 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. 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. Partnered among NSF divisions to refine agency business practices, creating a more systematic approach to monitoring and oversight for ARRA projects**.** 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.
	NSF's Anticipated Next Steps Continue to monitor and incorporate lessons learned in BSR documentation, processes and practices. Conduct follow-up and monitoring after the ARRV site visit. Plan comprehensive BSRs when timing and coordination with other audits and oversight permits. Work with awardees to develop certification procedures for requirements of the Buy America Act.
CHALLENGE: Improving Grant Administration *a. Refine post-award administration policies and practices*	**NSF's Significant Actions Taken in FY 2010** 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. Established the NSF-OIG Work Group on Audit as a corrective action for the OIG Report, *Audit of NSF's Audit Resolution Process for OIG Audits of NSF Awardees* (OIG 10-2-006); established NSF-OIG Audit Resolution Management Team weekly meetings with a goal to improve stewardship of federal investments. Issued a draft policy on collaborative audit resolution and follow-up; conducted a joint meeting with NSF and OIG staff

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	who have audit responsibilities, sharing new operating principles and agreements. 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. 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. 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. 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. 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. 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 *Improving Program Performance and Accountability Through Cooperative Audit Resolution*; it overviews AGA's *Cooperative Audit Resolution and Oversight Initiative Guide* 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.
	NSF's Anticipated Next Steps 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. 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. 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.
b. Improve monitoring of program performance	**NSF's Significant Actions Taken in FY 2010** 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: Establishing a senior-level management ARRA Steering Committee comprised of program, financial, and legal

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	executives to manage monitor all NSF ARRA activities. 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. 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. 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. 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. 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. 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. Proposed to NSF's Business Applications Requirements Review Board that business requirements for a *Dashboard*, intended as a suite of tools, be made available via *Research.gov's Desktop*. The *Dashboard* 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.
	NSF's Anticipated Next Steps Continue ARRA award monitoring to include financial, administrative, and programmatic performance. Incorporate ARRA lessons learned into program performance and monitoring of NSF's non-ARRA portfolio. Continue to build on the working relationship developed between program and administrative staff to develop tools to

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	improved NSF interaction with its programmatic data. 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. 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. Define the high-level architecture and resource requirements for a prototype *Financial Dashboard* under *Research.gov* 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.
c. Improve subrecipient oversight	**NSF's Significant Actions Taken in FY 2010** 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. 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. 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. 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.
	NSF's Anticipated Next Steps Continue review of Final Draft OMB Guidance.
CHALLENGE: Strengthening Contract Administration *a. Administer an effective and successful USAP procurement process*	**NSF's Significant Actions Taken in FY 2010** 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.
	NSF's Anticipated Next Steps Actively manage the procurement process.

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b. Closeout existing USAP contract	**NSF's Significant Actions Taken in FY 2010** Worked closely with the Defense Contract Audit Agency to resolve audit-related issues.
	NSF's Anticipated Next Steps Continue to work with the Defense Contract Audit Agency and the Defense Contract Management Agency to resolve audit-related issues.
c. Continue strengthening contract monitoring efforts	**NSF's Significant Actions Taken in FY 2010** 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. 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. 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. 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.
	NSF's Anticipated Next Steps Continue to work with OIG in the implementation and monitoring of Corrective Action Plans. Seek additional opportunities to refine the contracting manual guidance regarding cost reimbursement contracting. Continue to ensure that the acquisition workforce is certified and trained to appropriate levels to assume assigned contract monitoring duties. 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. Embrace Federal Government Acquisition process improvement initiatives.
CHALLENGE: Becoming a Model Agency for Human Capital Management *a. Improve the workforce*	**NSF's Significant Actions Taken in FY 2010** 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. Created the Directorates' annual staffing plans to guide ongoing hiring and succession planning efforts and to ensure

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planning process	efficient use of limited resources. 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.
	NSF's Anticipated Next Steps 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. Review and update the staffing planning process to bring it more in line with budget cycles and better integrate workload indicators.
b. Define role for rotators	**NSF's Significant Actions Taken in FY 2010** 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. 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. Provided a suite of learning opportunities designed to inform new managers and managers new to government about their management and supervisory responsibilities.
	NSF's Anticipated Next Steps 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. 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). Continue to enhance management learning opportunities, including the complete implementation of the New Executive Transition Program.
c. Continue progress in succession planning	**NSF's Significant Actions Taken in FY 2010** 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

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	address this unique need. 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. 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. Conducted skill gap analysis in critical support areas and developed action plans to fill gaps with innovative hiring and training initiatives.
	NSF's Anticipated Next Steps Continue rollout of the New Executive Training Program including a two-three day orientation and management development seminar for all new executives. 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.
CHALLENGE: Encouraging the Ethical Conduct of Research a. *Strengthen understanding and adherence to standards*	**NSF's Significant Actions Taken in FY 2010** Implemented Section 7009 of ACA in the *NSF Proposal & Awards Policies and Procedures Guide* 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. Posted an RCR Webpage on NSF's Website for use by institutions in developing their RCR implementation plans. 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. Conducted, in collaboration with the Society of Research Administrators International, two RCR webinars for the research administration community: *Interpretation & Implementation of NSF's Regulations to Facilitate the Ethical Conduct of Research*, and *Requirements for Responsible Conduct of Research.* 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

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	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.
	NSF's Anticipated Next Steps 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.
b. Responsibility to help lead international efforts to implement a framework	**NSF's Significant Actions Taken in FY 2010** Presentation by the Office of International Science and Engineering (OISE) to the National Science Board on International Research Integrity. 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. 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. 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. Required RCR mentoring for students and postdocs who will be supported by the G8 Multilateral Research Funding Initiative.
	NSF's Anticipated Next Steps Update OISE in-reach and outreach materials to address international accountability and research integrity. Work with the NSF Academy to develop case studies involving international accountability and research integrity. Revise the Program Information Management System template to include a statement about "international collaborative oversight" in applicable proposal generating documents with international dimensions.
CHALLENGE: Effectively Managing Large Facilities and Instruments *a. Management and oversight of large facilities projects*	**NSF's Significant Actions Taken in FY 2010** 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. 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 *Alvin* (a deep-sea research vessel) Replacement Human Occupied Vehicle.

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Fiscal Year (FY) 2010 Progress Report on OIG Management Challenges

	NSF's Anticipated Next Steps 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: 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.

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

Note: Includes grants and cooperative agreements for the Research and Related Activities and Education and Human Resources accounts.

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