

**ENSURING THE BEST STEWARDSHIP  
OF AMERICAN TAXPAYER DOLLARS  
AT THE NATIONAL SCIENCE FOUNDATION**

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**HEARING**  
BEFORE THE  
SUBCOMMITTEE ON RESEARCH AND SCIENCE  
EDUCATION  
COMMITTEE ON SCIENCE, SPACE, AND  
TECHNOLOGY  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

WEDNESDAY, MAY 9, 2012

**Serial No. 112-83**

Printed for the use of the Committee on Science, Space, and Technology



Available via the World Wide Web: <http://science.house.gov>

U.S. GOVERNMENT PRINTING OFFICE

74-062PDF

WASHINGTON : 2012

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# CONTENTS

Wednesday, May 9, 2012

Witness List .....	Page 2
Hearing Charter .....	3

## Opening Statements

Statement by Representative Mo Brooks, Chairman, Subcommittee on Research and Science Education, Committee on Science, Space, and Technology, U.S. House of Representatives .....	11
Written Statement .....	12
Statement by Representative Daniel Lipinski, Ranking Minority Member, Subcommittee on Research and Science Education, Committee on Science, Space, and Technology, U.S. House of Representatives .....	12
Written Statement .....	14

## Witnesses:

Ms. Allison C. Lerner, Inspector General, National Science Foundation	
Oral Statement .....	15
Written Statement .....	18

## Appendix I: Answers to Post-Hearing Questions

Ms. Allison C. Lerner, Inspector General, National Science Foundation .....	48
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**WEDNESDAY, MAY 9, 2012**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON RESEARCH AND SCIENCE EDUCATION,  
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,  
*Washington, D.C.*

The Subcommittee met, pursuant to call, at 2:02 p.m., in Room 2318 of the Rayburn House Office Building, Hon. Mo Brooks [Chairman of the Subcommittee] presiding.

RALPH M. HALL, TEXAS  
CHAIRMAN

EDDIE BERNICE JOHNSON, TEXAS  
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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Subcommittee on Research & Science Education Hearing

*Ensuring the Best Stewardship of American Taxpayer Dollars at the  
National Science Foundation*

Wednesday, May 9, 2012  
2:00 p.m. to 4:00 p.m.  
2318 Rayburn House Office Building

Witnesses

**Ms. Allison C. Lerner**, Inspector General, National Science Foundation

**U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY  
SUBCOMMITTEE ON RESEARCH AND SCIENCE EDUCATION**

**HEARING CHARTER**

*Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science Foundation*

**Wednesday, May 9, 2012  
2:00 p.m. - 4:00 p.m.  
2318 Rayburn House Office Building**

**1. Purpose**

On Wednesday, May 9, 2012, the Committee on Science, Space, and Technology Subcommittee on Research and Science Education will hold a hearing to provide oversight of the National Science Foundation (NSF), including the examination of various issues identified by the NSF Office of Inspector General.

**2. Witness**

**Ms. Allison C. Lerner**, Inspector General, National Science Foundation

**3. Overview**

- Ensuring effective stewardship of taxpayer dollars is essential to an efficient government.
- The National Science Foundation (NSF) is an independent federal agency with a current annual budget of \$7 billion. It is the funding source for approximately 40 percent of all federally supported non-medical basic research conducted by America's colleges and universities. In many fields such as mathematics, computer science and the social sciences, NSF is the major source of federal funding.
- The NSF Office of Inspector General (OIG) provides independent oversight of the Foundation's programs and operations. The OIG is responsible for promoting efficiency and effectiveness in agency programs and for preventing and detecting fraud, waste, and abuse. The Fiscal Year 2013 (FY13) budget request for the NSF OIG is \$14.2 million, equal to the FY12 estimate.
- As part of the 2009 American Recovery and Reinvestment Act (ARRA), the NSF OIG received \$2 million to provide oversight of NSF's ARRA funds.
- The use of contingency funding relative to three MREFC projects has recently been under review by the NSF OIG, totaling over \$226 million in unallowable contingency costs.

- The September 2011 OIG Report to Congress includes the closing of 50 investigations, five research misconduct cases resulting in findings by NSF, and the recovery of \$12,903,449.<sup>1</sup>

#### 4. Background

##### *National Science Foundation (NSF)*

Established by an Act of Congress in 1950, the National Science Foundation (NSF) is an independent federal agency created "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." Unlike any other federal agency, the mission of NSF includes support for all fields of fundamental science and engineering, except for medical sciences. NSF is charged with keeping the United States at the leading edge of discovery in areas from astronomy to geology to zoology. In addition to funding research in the traditional academic areas, the agency also supports "high-risk, high pay-off" ideas, novel collaborations, and training for tomorrow's top scientists and engineers.<sup>2</sup>

NSF is the primary source of federal funding for non-medical basic research, providing approximately 40 percent of all federal support, and serves as a catalyst for science, technology, engineering, and mathematics (STEM) education improvement at all levels of education. NSF is the major source of federal funding for many fields like mathematics, computer science, and the social sciences. It supports the fundamental investigations that ultimately serve as the foundation for progress in nationally significant areas such as national security, technology-driven economic growth, energy independence, health care, nanotechnology, and networking and information technology.

Through over 11,000 new awards per year, NSF supports an average of 285,000 scientists, engineers, educators and students at universities, laboratories and field sites all over the U.S. and throughout the world. These grants fund specific research proposals that have been judged the most promising by a rigorous and objective merit-review system. In the past few decades, NSF-funded researchers have won more than 180 Nobel Prizes.

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<sup>1</sup> *NSF OIG Semiannual Report to Congress*, September 2011, p. 3.

<sup>2</sup> <http://www.nsf.gov/about/>

**National Science Foundation (NSF) Spending and Fiscal Year 2013 Budget Request**  
(dollars in millions)

Account	FY11 Actual	FY12 Estimate	FY13 Request	FY13 Request versus FY12 Estimate	
				\$	%
<b>Research and Related Activities (RRA)</b>	<b>5608.4</b>	<b>5689.0</b>	<b>5983.3</b>	<b>294.3</b>	<b>5.2</b>
<i>Biological Sciences (BIO)</i>	712.3	712.4	733.9	21.5	3.0
<i>Computer and Info. Science and Engineering (CISE)</i>	636.1	653.6	709.7	56.1	8.6
<i>Engineering (ENG)</i>	763.3	826.2	876.3	50.2	6.1
<i>Geosciences (GEO)</i>	885.3	885.3	906.4	21.2	2.4
<i>Mathematical and Physical Sciences (MSP)</i>	1312.4	1308.9	1345.2	36.2	2.8
<i>Social, Behavioral, and Economic Sciences (SBE)</i>	247.3	254.3	259.6	5.3	2.1
<i>Cyberinfrastructure (OCI)</i>	300.8	211.6	218.3	6.6	3.1
<i>International Science and Engineering (OISE)</i>	49.0	49.9	51.3	1.4	2.9
<i>Polar Programs (OPP)</i>	440.7	435.9	449.7	13.9	3.2
<i>Integrative Activities (IA)</i>	259.6	349.6	431.5	81.9	23.4
<i>U.S. Arctic Research Commission</i>	1.6	1.5	1.4	(0.1)	-4.1
<b>Education and Human Resources (EHR)</b>	<b>861.0</b>	<b>829.0</b>	<b>875.6</b>	<b>46.6</b>	<b>5.6</b>
<b>Major Research Equipment &amp; Facilities Const (MREFC)</b>	<b>125.4</b>	<b>197.1</b>	<b>196.2</b>	<b>(0.9)</b>	<b>-0.4</b>
<b>Agency Operations &amp; Award Management</b>	<b>299.3</b>	<b>299.4</b>	<b>299.4</b>	<b>0</b>	<b>0</b>
<b>National Science Board (NSB)</b>	<b>4.5</b>	<b>4.4</b>	<b>4.4</b>	<b>0</b>	<b>0</b>
<b>Office of Inspector General (OIG)</b>	<b>14.0</b>	<b>14.2</b>	<b>14.2</b>	<b>0</b>	<b>0</b>
<b>Totals:</b>	<b>6912.6</b>	<b>7033.1</b>	<b>7373.1</b>	<b>340</b>	<b>4.8</b>

*Office of Inspector General<sup>3</sup>*

Each federal agency has an Office of Inspector General (OIG) that provides independent oversight of an agency's programs and operations. The OIG is responsible for promoting efficiency and effectiveness in agency programs and for preventing and detecting fraud, waste, and abuse.

Pursuant to the Inspector General Act Amendments of 1988, the National Science Board established OIG and, under the statute, confers on OIG the responsibility and authority to:

- Conduct and supervise audits of NSF programs and operations, including organizations that receive NSF funding;
- Conduct investigations concerning NSF programs and operations, including organizations that receive NSF funding;
- Evaluate allegations of research misconduct, such as fabrication, falsification, or plagiarism, involving individuals who participate in NSF-funded activities;
- Provide leadership, coordination, and policy recommendations for:

<sup>3</sup> <http://www.nsf.gov/oig/>

- Promoting economy, efficiency, and effectiveness in the administration of NSF programs and operations, and
- Preventing and detecting fraud and abuse in NSF programs and operations; and
- Issue semiannual reports to the NSB and Congress to keep them informed about problems, recommended corrective actions, and progress being made in improving the management and conduct of NSF programs.<sup>4</sup>

Also by statute, the NSF OIG is independent from the Foundation. The Inspector General (IG) reports directly to the National Science Board and to Congress. OIG working relationships with NSF and its awardees help to focus OIG efforts on priority areas.

The Fiscal Year 2013 (FY13) budget request for the OIG includes \$14.2 million, a level equal to the FY12 estimate. The FY13 request “identifies the resources needed to support OIG, including amounts for personnel compensation and benefits, contract services, training, travel, supplies, materials, and equipment.”<sup>5</sup>

The OIG is responsible for assessing internal controls, financial management, information technology, and other systems that affect the operation of NSF programs. The OIG work includes identifying individuals who attempt to abuse the public trust or defraud government programs and enforcing integrity in agency operations.

The OIG conducts independent and objective audits, investigations, and other reviews to support NSF in its mission by promoting the economy, efficiency, and effectiveness and safeguarding the integrity of NSF programs and operations. The OIG strives to prevent problems, to address existing issues in a timely and proportionate manner, and to keep abreast of emerging challenges and opportunities.<sup>6</sup> The OIG maintains a fraud, waste and abuse hotline and encourages NSF employees, grantees, principal investigators, or others working on NSF programs, grants, or contracts, to contact OIG with allegations or suspicions of fraud, waste, abuse, mismanagement, and research misconduct. The OIG is comprised of auditors, investigators, attorneys, scientists, and other specialists.

#### Office of Audit<sup>7</sup>

The Office of Audit (OA) is responsible for auditing grants, contracts, and cooperative agreements funded by NSF programs. OA reviews agency operations and ensures that the financial, administrative, and programmatic aspects of agency operations are conducted economically and efficiently.

OA conducts financial audits to determine whether costs claimed by awardees are allowable, reasonable, and properly allocated as well as performance audits that identify problems so Foundation managers can improve operations. In addition, OA is responsible for the annual audit of the National Science Foundation's financial statements, which includes evaluations of

<sup>4</sup> *FY13 NSF Budget Request to Congress*, p. OIG-2.

<sup>5</sup> *FY13 NSF Budget Request to Congress*, p. OIG-1.

<sup>6</sup> <http://www.nsf.gov/oig/mandv.jsp>

<sup>7</sup> <http://www.nsf.gov/oig/officeofaudits.jsp>

internal controls and data processing systems. Audits are conducted in accordance with the Government Auditing Standards and fall within two main areas: External and Internal.

Audits seek to identify costly practices that may be modified so that funds can be used for other purposes that taxpayers consider more important. By providing independent and objective assessments of NSF's program and financial performance, OA works to improve NSF's business policies and practices to better support the Foundation in promoting science and engineering research and education. In order to accomplish its mission, OA works to maintain open communication and work in partnership with NSF management. OA supports the Foundation by ensuring NSF award administration policies, as well as other federally required regulations, are properly followed.

#### Office of Investigations<sup>8</sup>

The Office of Investigations (OI) assesses and investigates allegations of wrongdoing and develops and coordinates outreach efforts. OI investigates wrongdoing involving organizations or individuals that receive awards from, conduct business with, or work for NSF. OI assesses the seriousness of misconduct and recommends proportionate action. When appropriate, the results of these investigations are referred to the Department of Justice or other prosecutorial authorities for criminal prosecution or civil litigation, or to NSF management for administrative resolution. Investigations are conducted in a thorough and impartial manner and are consistent with the requirements of the Quality Standards for Federal Offices of Inspector General.

Criminal and civil investigators focus on allegations of intentional diversion of NSF funds and material false statements in information submitted to the Foundation. Intentional diversion of NSF funds for personal use is a criminal act, which can be prosecuted under several statutes. NSF awardees are required to notify NSF of any significant problems relating to their NSF awards.

Administrative investigators focus on violations of rules, regulations, or policy including allegations of research misconduct (falsification, fabrication, and plagiarism). Research misconduct erodes the integrity of the research enterprise and strikes at the core of NSF's mission; it is a special focus of investigative efforts within OIG. NSF awardees are required to notify NSF when they determine a research misconduct allegation has substance and they proceed to investigation.

Outreach efforts are essential to building partnerships within the agency and with other federal agencies, NSF awardees, and research communities. These partnerships assist in promoting education on ethical issues, responsible conduct of research, and resolving integrity and efficiency matters effectively

#### *The Office of Inspector General and the American Recovery and Reinvestment Act*<sup>9</sup>

As part of the American Recovery and Reinvestment Act (ARRA), signed into law in February 2009, NSF received \$3 billion in stimulus funding and OIG received \$2 million to provide

<sup>8</sup> <http://www.nsf.gov/oig/officeofinvestigations.jsp>

<sup>9</sup> <http://www.nsf.gov/oig/recovery.jsp>

oversight of NSF's ARRA funds. OIG is approaching ARRA oversight responsibilities in two phases: 1) a *proactive* phase for risk mitigation activities that can be accomplished in the near term to help prevent problems and prepare for more substantive work and; 2) an *operational* phase during which audits, investigations, and other types of reviews are conducted.

Under the auspices of the Recovery Accountability and Transparency Board, the NSF OIG is participating in a working group of OIGs from other agencies that received Recovery Act funds to coordinate activities and share best practices. The purpose of the Board is to coordinate and conduct oversight of Recovery Act funds to prevent fraud, waste and abuse.

As part of its work on ARRA oversight, OIG issued three alert memorandums concerning various Recovery Act issues that required immediate management attention and issued reports on ARRA data quality for 10 NSF awardees. OIG has also worked to assess and investigate allegations of wrongdoing involving NSF awards funded by ARRA. In the future, OIG plans to conduct more traditional types of audits and reviews that focus on ongoing operations and awards.

#### *Contingency Issue*

In an effort to keep project costs associated with Major Research Equipment and Facilities Construction (MREFC) from escalating during construction, NSF instituted a "no cost overrun policy" on any new MREFC-funded construction projects. "This policy requires that the total project cost estimate developed at the Preliminary Design Stage have adequate contingency to cover all foreseeable risks, and that any cost increases not covered by contingency be accommodated by reductions in scope."<sup>10</sup>

The use of contingency funding relative to MREFC projects has recently been under review by the NSF OIG. In the September 2010, March 2011 and September 2011 Semiannual Reports to Congress, the OIG highlighted audits of MREFC projects focused on "unallowable contingency costs." The audits in these reports focused on three separate MREFC projects: the Ocean Observatories Initiative (OIG found \$88 million in unallowable contingency costs in September 2010<sup>11</sup>); the Advanced Technology Solar Telescope (OIG found \$62 million in unallowable contingency costs in March 2011<sup>12</sup>); and the National Ecological Observatory Network (OIG found \$76 million in unallowable contingency costs in September 2011<sup>13</sup>).

According to NSF, construction contingency policies are consistent with the GAO Cost Estimating and Assessment Guide and the OMB Capital Programming Guide and are part of the budget to be maintained by the project manager. However, OIG has asserted, "The audit did not find any controls or technical barriers to prevent the organization from drawing down contingency funds and spending them without NSF approval."<sup>14</sup> The OIG continues to work with the projects noted and NSF to resolve the concerns around contingency related funds. OIG

<sup>10</sup> *National Science Foundation Large Facilities Manual*, March 31, 2011, p. 18.

<sup>11</sup> *NSF OIG Semiannual Report to Congress*, September 2010, p. 17.

<sup>12</sup> *NSF OIG Semiannual Report to Congress*, March 2011, p. 8.

<sup>13</sup> *NSF OIG Semiannual Report to Congress*, September 2011, p. 25.

<sup>14</sup> *NSF OIG Semiannual Report to Congress*, September 2010, p. 5.

and the Office of Budget, Finance and Award Management (BFA) at NSF have established a working group focusing on definitional issues surrounding contingency funds and identifying adequate support for contingency charges.

In the Report to accompany H.R. 5326, the Commerce, Justice, and Science Appropriations Bill for 2013, the Appropriations Committee addressed the issue as follows:

NSF has been engaged in a lengthy discussion process with the NSF OIG to resolve an ongoing dispute about project contingency budgets. Tens of millions of dollars of potentially unallowable contingency costs hinge on the resolution of this dispute, and the Committee believes that it is taking too long for a consensus resolution to be reached. NSF is directed to provide the Committees on Appropriations with an immediate update on the status of efforts to resolve these issues and to provide quarterly updates thereafter until such time that NSF and the OIG reach an agreement.<sup>15</sup>

The Office of Management and Budget's (OMB) Circular A-21 identifies cost principles for education institutions and defines contingency costs as unallowable.<sup>16</sup> OMB is currently considering proposed changes to this Circular that would affect budgeting for contingency costs.<sup>17</sup>

*Other Resolved and Outstanding Issues*

According to the September 2011 OIG report to Congress, "investigative staff closed 50 investigations, had five research misconduct cases result in findings by NSF, and recovered \$12,903,449 for the government."<sup>18</sup>

Highlights from the September 2011 Report include:

- An investigation of overcharges by the contractor that provided support for the U.S. Antarctic Program, which began pursuant to a referral from the Office of Audit, led to the recovery of \$11.4 million in wrongful contract charges.
- An investigation involving a principal investigator (PI) at a Georgia college who submitted false claims to NSF and NASA grants over a five year period led to a settlement agreement requiring the college to reimburse the federal government \$1.2 million. The college also agreed to a five-year compliance plan and did not renew the PI's employment contract.

<sup>15</sup> House Report 112-463, p. 78.

<sup>16</sup> OMB Circular A-21 (revised 5/10/04), p.52

<sup>17</sup> Federal Register, Vol. 77, No. 39, Tuesday February 28, 2012: <http://www.gpo.gov/fdsys/pkg/FR-2012-02-28/pdf/2012-4521.pdf>

<sup>18</sup> NSF OIG Semiannual Report to Congress, September 2011, p. 3.

- More than \$875,000 was recovered from four ongoing cases. In one case, an employee at a Delaware university charged fraudulent and unallowable costs to an NSF award and, during the investigation, altered records to transfer improper costs off the awards. In another case, involving duplicate funding related to NSF and Department of Energy awards, NSF terminated an award in response to the OIG recommendation, providing NSF with more than \$261,000 in funds put to better use.
- An audit of NSF's oversight of grantee institutions' financial conflicts of interest programs found that NSF policy does not require it to provide monitoring and oversight of grantee institutions' implementation of their conflicts programs. In addition, institutions are not required to notify NSF when they permit research to continue without imposing restrictions on an identified conflict. As a result, NSF cannot be assured that the institutions are properly managing, reducing, or eliminating conflicts of interest or that unmanageable conflicts are being reported to NSF.<sup>19</sup>

The March 2012 Semiannual will be transmitted to Congress on or before May 31, 2012, in compliance with the requirements of the Inspector General Act of 1978, as amended.

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<sup>19</sup> *Ibid.*, p. 5.

Chairman BROOKS. The Subcommittee on Research and Science Education will come to order.

Good afternoon. Welcome to today's hearing entitled, "Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science Foundation." The purpose of today's hearing is to provide oversight of the National Science Foundation, including the examination of various issues identified by the NSF Office of Inspector General.

I now recognize myself for five minutes for an opening statement.

I would like to thank Ms. Lerner for being with us today to discuss the oversight role of the National Science Foundation Office of Inspector General and current stewardship issues confronting the NSF.

While we have devoted a number of hearings to oversight in this Congress, including oversight of NSF Programs and activities, hearing from the Foundation's Inspector General about internal and external oversight is particularly important. With the recent revelations about the General Services Administration's extravagance and the NOAA magician debacle still fresh in our minds, I trust there will be no similar surprises in the upcoming NSF Office of Inspector General report.

The NSF OIG provides independent oversight of the Foundation's programs and operations. By statute, the NSF OIG is independent from the agency, with the Inspector General reporting directly to the National Services Board and the Congress. The Administration's fiscal year 2013 budget request includes over \$14 million for the Office of Inspector General, an amount equal to the fiscal year 2012 estimate.

The OIG assesses internal controls, financial management, information technology, and other systems that affect the operation of NSF programs. By identifying individuals who attempt to abuse the public trust or defraud government programs, the OIG also enforces integrity in agency operations.

The next semi-annual National Science Foundation Office of Inspector General report will be available next month. However, there are a number of issues ripe for discussion today. Last year alone for the six months ending September 30, 2011, the OIG investigative staff closed 50 investigations, had five research misconduct cases result in findings by the National Science Foundation, and recovered over \$12 million for the government. Additionally, 11 audit reports and reviews were issued which identified over 200,000 in questioned costs.

In addition to general audit and investigation updates, we look forward to receiving the latest developments in the Major Research Equipment and Facilities Construction Projects contingency issue, something we began discussions about in a recent subcommittee hearing.

I am particularly interested to learn more about OIG's oversight of stimulus spending and its concerns regarding fraud within the Small Business Innovation Research or SBIR Program.

It is my hope, Ms. Lerner, that the OIG will continue to be a steward of taxpayer dollars, ensuring that NSF programs and awardees are managed responsibly. I look forward to hearing the

testimony to be presented today and thank you again for taking time to share your insights with us.

One brief off-the-script remark, we have four votes scheduled. We are not sure exactly when we are going to be summoned to vote on a number of issues over on the House Floor, and I am also on the House Armed Services Committee, and we are marking up the National Defense Authorization Act. So we may have to suspend our proceedings as mandated by roll call votes before asked or House Floor votes.

[The prepared statement of Mr. Brooks follows:]

PREPARED STATEMENT OF CHAIRMAN MO BROOKS

Good afternoon and welcome. I'd like to thank Ms. Lerner for being with us today to discuss the oversight role of the National Science Foundation (NSF) Office of Inspector General (OIG) and current stewardship issues confronting NSF.

While we have devoted a number of hearings to oversight in this Congress, including oversight of NSF programs and activities, hearing from the Foundation's Inspector General (IG) about internal and external oversight is particularly important. With the recent revelations about GSA extravagance and the NOAA magician debacle still fresh in our minds, I trust there will be no similar surprises in the upcoming NSF OIG report.

The NSF OIG provides independent oversight of the Foundation's programs and operations. By statute, the NSF OIG is independent from the agency, with the IG reporting directly to the National Science Board (NSB) and the Congress. The Administration's FY13 budget request includes over \$14 million for the OIG, an amount equal to the FY12 estimate.

The OIG assesses internal controls, financial management, information technology, and other systems that affect the operation of NSF programs. By identifying individuals who attempt to abuse the public trust or defraud government programs, the OIG also enforces integrity in agency operations.

The next semi-annual NSF OIG report will be available next month; however, there are number of issues ripe for discussion today. Last year alone, for the six months ending September 30, 2011, the OIG investigative staff closed 50 investigations, had five research misconduct cases result in findings by NSF, and recovered over \$12 million for the government. Additionally, eleven audit reports and reviews were issued which identified over \$200 thousand in questioned costs.

In addition to general audit and investigation updates, we look forward to receiving the latest developments on the Major Research Equipment and Facilities Construction (MREFC) projects contingency issue, something we began discussions about in a recent Subcommittee hearing. I am particularly interested to learn more about OIG's oversight of stimulus spending and its concerns regarding fraud within the Small Business Innovation Research (SBIR) program.

It is my hope, Ms. Lerner, that the OIG will continue to be a steward of taxpayer dollars, ensuring that NSF programs and awardees are managed responsibly. I look forward to hearing the testimony to be presented today and thank you again, for taking time to share your insights with us.

Chairman BROOKS. And so with that the Chair now recognizes Mr. Lipinski for an opening statement.

Mr. LIPINSKI. Thank you, Chairman Brooks, and I want to welcome Ms. Lerner.

I believe that the National Science Foundation is a good steward of American taxpayer dollars, but it is our job in this subcommittee to be continually vigilant in our oversight, and I thank Chairman Brooks for this hearing today.

I also want to thank the Inspector General for being with us today to help us better understand some of the important issues and concerns regarding NSF policies and its management in oversight practices. I appreciate the work the IG does reviewing NSF policies in protecting against fraud and abuse.

Any incident of research fraud is troubling. Scientists must always hold themselves and their colleagues to the highest ethical standards. This is especially imperative when utilizing taxpayer funds. The 2007 *America COMPETES Act*, of which I was a cosponsor, included a provision requiring all universities to implement training in the responsible conduct of research for all students and post doc fellows participating in NSF-funded research.

While isolated incidents continue to occur, the IG appears to have a productive and effective partnership with NSF program officers, reviewers in management in uncovering and dealing with issues swiftly.

Similarly, any incidence of misuse of grant funds, including in the SBIR Program, would be of great concern to me. I would not want to see broad support for the SBIR Program erode because of the dishonest actions of a very small minority of grantees. So I support the IG's effort to ensure strong management and oversight in the SBIR Program.

Inspector General Lerner's testimony also raises some important questions for us to consider. These include the way NSF manages potential conflict of interest among its grantees and appropriateness of NSF's policy for independent research and development for its staff.

Now, before I close I would like to discuss the issue of contingency funds and the construction of large research facilities. As the Inspector General likely knows, this subcommittee began to explore this issue at depth in a March hearing on NSF's MREFC account. The deputy director of the NSF testified at that hearing, and it is clear that the perspective of NSF's management with respect to contingency funds are very different from those we will hear from Ms. Lerner today.

I recognize that contingency funds are necessary to construct large facilities such as the ones in MREFC account. The definition NSF uses for contingency seems consistent with standards for project management used in the private sector.

That said, there is room for legitimate disagreement on this matter. The IG raised some real concerns about the drawdown of contingency funds and whether these funds should be held by the agency or the project managers. I join the chorus of interested parties urging you to continue to work toward a resolution.

At the same time we cannot ignore the fact that OMB is undertaking a significant overhaul of OMB Circular A-21 that governs the agency use and management of contingency funds. The proposed language looks radically different from the current language used by the IG's Office in their critique of NSF policy.

In the meantime three MREFC projects already underway are in limbo not knowing which rules to follow or how to manage their budgets. I hope the OMB will complete their review swiftly to help reduce the confusion.

This hearing will not be the last word on contingency funds, but I am pleased we have the opportunity to hear directly from the IG on this topic today, and I look forward to an informative hearing.

Thank you.

[The prepared statement of Mr. Lipinski follows:]

## PREPARED STATEMENT OF RANKING MEMBER DANIEL LIPINSKI

Thank you Chairman Brooks and welcome Ms. Lerner.

I believe that the National Science Foundation is a good steward of American taxpayer dollars, but it is our job on this subcommittee to be continually vigilant in our oversight. I thank the Inspector General for being with us today to help us better understand some important issues and concerns regarding NSF policies and its management and oversight practices. I appreciate the work the IG does reviewing NSF's policies and protecting against fraud & abuse.

Any incident of research fraud is troubling. Scientists must always hold themselves and their colleagues to the highest ethical standards. This is especially imperative when utilizing taxpayer funds. The 2007 America COMPETES Act, of which I was a cosponsor, included a provision requiring all universities to implement training in the responsible conduct of research for all students and postdoc fellows participating in NSF-funded research. While isolated incidents continue to occur, the IG appears to have a productive and effective partnership with NSF program officers, reviewers, and management in uncovering and dealing with issues swiftly.

Similarly, any incidents of misuse of grant funds, including in the SBIR program, would be of great concern to me. I would not want to see broad support for the SBIR program erode because of the dishonest actions of a very small minority of grantees. So I support the IG's efforts to ensure strong management and oversight in the SBIR program.

Inspector General Lerner's testimony also raises some important questions for us to consider. These include the way NSF manages for potential conflict of interest among its grantees, and the appropriateness of NSF's policies for independent research and development for its staff.

Before I close I'd like to discuss the issue of contingency funds and the construction of large research facilities. As the Inspector General likely knows, this Subcommittee began to explore this issue at depth in a March hearing on NSF's MREFC account. The Deputy Director of the NSF testified at that hearing, and it is clear that the perspectives of NSF Management with respect to contingency funds are very different from those we will hear from Ms. Lerner today.

I recognize that contingency funds are necessary to construct large facilities such as the ones in the MREFC account. The definition NSF uses for contingency seems consistent with standards for project management used in the private sector. That said there is room for legitimate disagreement on this matter, and the IG raises some real concerns about the drawdown of contingency funds and whether these funds should be held by the agency or the project managers. I join the chorus of interested parties urging you to continue working toward resolution.

At the same time, we cannot ignore the fact that OMB is undertaking a significant overhaul of OMB Circular A-21 that governs agency use and management of contingency funds. The proposed language looks radically different from the current language used by the IG's office in their critique of NSF's policy. In the meantime, three MREFC projects already underway are in limbo not knowing which rules to follow, or how to manage their budgets. I hope that OMB will complete their review swiftly to help reduce the confusion.

This hearing will not be the last word on contingency funds, but I am pleased we have the opportunity to hear directly from the IG on this topic today and I look forward to an informative hearing.

Chairman BROOKS. Thank you, Mr. Lipinski.

Everybody knows what those bells means. It means that we have been called for a vote. From what I understand there will be two votes, and so with that having been said if Mr. Lipinski's in agreement, we will go ahead and recess and resume with Ms. Lerner's remarks five minutes after completion of the last vote, which I believe it is two votes, in which case we probably should be back here in about 25 to 30 minutes, although that is a rough approximation. We never know when we are over there how long past the zero mark the Speaker will allow votes to continue.

Mr. Lipinski has the idea that maybe we can have Ms. Lerner's testimony first and then run over there. We have 11 minutes left, so, Ms. Lerner, if you will restrict yourself to the allotted five minute period of time, then I will go ahead and give you an introduction, and we will move on.

Ms. Allison C. Lerner assumed the duties as Inspector General of the National Science Foundation April 2009. In June of 2011, Ms. Lerner was designated by President Obama as a member of the Government Accountability and Transparency Board. She currently chairs the Council of the Inspectors General on Integrity and Efficiency working groups on suspension and debarment and research misconduct. Ms. Lerner began her federal career in 1991, joining the Office of Inspector General of the United States, Department of Commerce as assistant counsel.

As our witness should know, spoken testimony is limited to five minutes, however, Ms. Lerner is our only witness, and we are interested in hearing from her. She may take additional time, if needed, is what my notes say, but please understand we are now down to 10 minutes before we are supposed to be over there voting.

After Ms. Lerner's testimony the members of the committee will have five minutes each to ask questions, and under the circumstances I will be somewhat liberal in allotting time for questions.

With that I now recognize Ms. Lerner for five minutes.

**STATEMENT OF ALLISON C. LERNER, INSPECTOR GENERAL,  
NATIONAL SCIENCE FOUNDATION**

Ms. LERNER. Thank you, Mr. Chairman and Members of the Subcommittee. I appreciate this opportunity to discuss the work of the Office of Inspector General to safeguard federal tax dollars awarded by the National Science Foundation and to protect the integrity of NSF's programs and operations.

My testimony will focus on the key issues facing effective stewardship of taxpayer dollars at NSF and the areas my office has identified as being most at risk for fraud, waste, abuse, and mismanagement. I will begin by discussing the OIG's oversight of NSF's grants and contract management with an emphasis on the special risks related to contingency funding in NSF's Large Facility Projects.

We found that NSF needs to continue to improve its grant management activities, including its oversight of awardees' financial accountability, programmatic performance, and compliance with applicable federal and NSF requirements. Sub-recipient monitoring has been another ongoing challenge for NSF and a recent audit of five awards totaling over \$5 million identified inadequate sub-recipient monitoring as a significant deficiency contributing to over \$450,000 in questioned costs. Adequate monitoring of cost reimbursement contracts, which are inherently high risk due to the potential for cost escalation, also remains a challenge for NSF.

In the past two years we have directed significant attention to NSF's oversight of the management and use of contingencies in budgets for its large MREFC projects. On our behalf the Defense Contract Audit Agency performed audits of the proposed budgets for three of NSF's large facility construction projects; the Ocean's Observatories Initiative or OOI, the Advanced Technology Solar Telescope or ATST, and the National Ecological Observatory Network, or NEON. In each instance there were significant problems with the proposed funding of the awardees for events that were not certain to occur and could not be supported by verifiable cost data.

Applicable OMB cost principles do not allow contributions to a contingency reserve or any similar provision made for events the occurrence of which cannot be foretold with certainty as to time, intensity, or with an assurance of their happening.

More specifically, in September, 2010, DCAA found that the proposed \$386 million budget for OOI contained a total of \$88 million in unallowable contingency funds. DCAA based this finding on a lack of evidence to support that amounts budgeted were for events that were consistent with the OMB cost principle. Follow-up work failed to surface verifiable cost data to support the contingency amounts confirming the original finding that the \$88 million proposed is unallowable.

Similar DCAA reviews of the budget proposals for the ATST and NEON projects identified an additional \$136 million in unallowable contingency costs. DCAA also found a lack of meaningful controls over the contingency funds provided to recipients. While awardees are supposed to seek NSF approval before drawing down contingency funds in excess of a certain threshold, DCAA found that at present there are no effective technical barriers in place to prevent these funds from being drawn down in advance and used for purposes other than a contingent event. Accordingly, there is a heightened risk of fraud or misuse of these funds.

We recognize that identifying funds needed for uncertainties during the conduct of complex construction projects is an important part of project management. However, we remain concerned by the risks associated with NSF's practice of awarding all contingency funds to awardees without regard to whether they are consistent with a cost principle and supported by verifiable data.

Simply stated, placing unallowable contingency funds into awardees' hands is not prudent financial management. We have recommended that NSF require the awardees to remove unallowable contingencies and discontinue its practice of awarding and funding such contingencies, and we are working with NSF to resolve these findings.

My office also examines how NSF spends money internally for its own operations and activities. In the current economic climate it is essential that we carefully study these expenses to identify opportunities for cost savings, funds that can be put to better use for the Foundation, and more efficient purchasing practices. In this vein we have examined NSF's expenditures for wireless plans and devices, refreshments for panelists, and the Independent Research and Development Travel Program. Our reviews have demonstrated the impact of NSF's decentralized approach to these expenditures. In each instance there was no Foundation-wide coordination or oversight of the purchase of similar items, and as a result purchasing practices varied widely across individual directorates and divisions. NSF was unable to take advantage of economies of scale when purchasing, and in the case of light refreshments and IRD Travel, the Foundation could not even tell how much money it was spending without substantial effort.

NSF has been receptive to our recommendations and has taken actions to enhance the cost effectiveness and efficiency of these expenditures. Our investigations have yielded significant results, and

for the past three years investigative recoveries for fines, restitutions, and other actions have totaled \$21.6 million.

Among other things, we have been directing significant investigative attention to fraud in the Small Business Innovation Research Program and since 2009, our SBIR cases have resulted in over \$1.2 million in restitution, funds returned to NSF, and funds put to better use.

Mr. Chairman, our work reflects my office's sustained commitment to helping NSF be an effective steward of taxpayer dollars and benefits from the support of NSF management across the Foundation. We look forward to our continued partnership with NSF and Congress to this end.

Thank you.

[The prepared statement of Ms. Lerner follows:]

**STATEMENT OF ALLISON C. LERNER**

**INSPECTOR GENERAL**

**NATIONAL SCIENCE FOUNDATION**

**Before a Hearing of the**

**House Science Research and Science Education Subcommittee**

**May 9, 2012**

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to discuss the Office of Inspector General's (OIG) work to promote the efficiency and effectiveness of the National Science Foundation's (NSF) programs and operations and to safeguard their integrity. My office is committed to providing rigorous, independent oversight of NSF, and I welcome the chance to discuss my office's work.

Background

NSF is the funding source for approximately 20 percent of all federally supported basic research in science and engineering conducted by the nation's colleges and universities. In many areas, such as mathematics and computer science, NSF is the major source of federal backing. The Foundation funds approximately 10,000 new awards each year, thereby fulfilling its mission to promote the progress of science. Proposals for funding are assessed by panels of experts as part of NSF's merit review process. Awards are made primarily as grants, with some large cooperative agreements and contracts, and go to individuals and small groups of investigators, as well as to research centers and facilities where scientists, engineers, and students undertake research projects. The Foundation also funds major research equipment such as telescopes, Antarctic research sites, and high-end computer facilities.

The OIG is an independent entity and reports directly to Congress and the National Science Board. Our mission is to conduct independent audits and investigations of National Science Foundation programs and operations and to recommend policies and corrective actions to promote effectiveness and efficiency and prevent and detect waste, fraud, and abuse. Consistent with our statutory mandate, the OIG has an oversight role and does not determine policy or engage in management activities involving the Foundation or program operations. Thus, my office is not responsible for managing any NSF programs, nor do we attempt to assess the scientific merit of research funded by the Foundation.

The OIG has two main components: the Office of Audit and the Office of Investigations. The Office of Audit is responsible for the annual audits of NSF's financial statements and the annual review of information system security. The office also conducts financial and compliance audits of grants, contracts, and cooperative agreements funded by NSF. Further, we monitor management functions that may pose significant financial or programmatic risks. In determining

priorities, we consider the results of prior audits and consult with the Foundation's senior management, the National Science Board and Congress, and with the Office of Management and Budget and members of the research community supported by the Foundation. In selecting areas for audit, we assess factors such as the risk involved in the activity, the potential for monetary recovery for the government, and the potential for the greatest substantive benefit for NSF.

The Office of Investigations is responsible for investigating possible wrongdoing involving NSF programs and operations, agency personnel, and organizations or individuals who submit proposals to, receive awards from, or conduct business with NSF. We focus our investigative resources on the most serious cases, as measured by such factors as the amount of money involved, the seriousness of the alleged criminal, civil or ethical violations, and the strength of the evidence. When appropriate, the results of these investigations are referred to the Department of Justice for possible criminal prosecution or civil litigation, or to NSF for administrative resolution.

#### Oversight Issues

Since the agency's primary mission activity is accomplished through funding external awardees, the success of NSF's overall mission and the achievement of its goals are largely dependent on effective grant and contract administration. OIG has an important oversight role, but given the breadth of our mission, we can only review a small number of awards each year. We are currently developing a data analytic capacity and improved forensic financial skills that should enable us to better identify awards with the most risk and thus more effectively leverage our limited staff resources.

I will begin my testimony by discussing the OIG's oversight of NSF's grant and contract management with a focus on the special risks related to contingency funding in NSF's large facility projects.

**Grants Management:** Our audits of NSF's operations have found 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. NSF has indicated that staffing constraints caused it to reduce the number of site visits to monitor high-risk awardees. In both FY 2010 and FY 2011, six planned site visits were cancelled. NSF had planned to conduct 30 site visits in FY 2010 and 32 in FY 2011.

NSF also stated that its increased workload has impacted its ability to resolve audit recommendations in a timely fashion. For example, the number of audit reports with questioned costs that were not resolved within six months grew from zero in FY 2003 to 26 in FY 2010. Resolving questioned costs swiftly is an important component of grants management so that funds can be returned to the federal government and also so that financial management deficiencies can be addressed before additional funds are placed at risk.

As budget constraints continue and accountability expectations increase, NSF has been working to develop alternative ways to oversee awardees. For example, the agency recently conducted virtual site visit pilots as part of its advanced monitoring program. NSF also responded

positively to our recent recommendation to use workforce planning exercises to seek alternative and more streamlined ways to provide oversight within its current staffing limits.

In addition, ensuring that recipient institutions adequately monitor sub-awardees has been a continuing challenge for NSF, which has been cited in the financial statement audits as well as in our audit work. Awardees that pass federal funds through to sub-awardees must monitor these sub-awardees to ensure that their financial systems are adequate to manage the federal money they receive. For example, a recent audit of five awards totaling over \$5 million identified inadequate sub-recipient monitoring as a significant deficiency contributing to over \$450,000 in questioned costs.

**Contract Monitoring:** Adequate monitoring of cost reimbursement contracts remains a significant challenge for NSF, and we have directed attention to this issue. In particular, we have focused on the agency's ability to manage cost reimbursement contracts. Monitoring of such contracts, in FY 2009 and FY 2010, was identified as a significant deficiency in the agency's financial statement audits. While the finding fell to a management letter comment in the 2011 audit, challenges remain.

For example, while NSF's response to address the significant deficiency cited in its FYs 2009 and 2010 financial statements audits stated that it would obtain cost incurred submissions from its largest contractors within six months of the end of the fiscal year, it obtained the submissions late for one its three largest contractors and did not obtain any submission from another contractor. Obtaining incurred cost submissions and reviewing the costs, including when warranted, having timely incurred cost audits performed is vital to ensuring that costs paid are proper. Because NSF has decided to maintain its portfolio of cost reimbursement contracts, this type of oversight takes on renewed importance to protect taxpayer funds.

**Contingencies:** An area of ongoing concern has been NSF's oversight of the construction of the large facility projects it funds. In recent years, NSF has instituted a policy of ensuring these projects do not exceed their planned budgets by requiring a level of "contingency" costs in the initial budget. Project management, especially for projects of this scale and complexity, requires a higher level of planning and risk management. Proposal budgets create a basis upon which awardees can draw down funds over the course of the award for specific cost items. The budget is a tool for managing the progress of the project. In addition, federal cost principles define how award funds may be budgeted and spent.

On our behalf, the Defense Contract Audit Agency (DCAA) performed audits of the proposed budgets of three of NSF's large facility construction projects – the Ocean Observatories Initiative (OOI), the Advanced Technology Solar Telescope (ATST), and the National Ecological Observatory Network (NEON). In each instance, the audit work revealed significant problems with the proposed budgets because the applicable OMB cost principles do not allow "[c]ontributions to a contingency reserve or any similar provision made for events the occurrence of which *cannot be foretold with certainty* as to time, intensity, or with an assurance of their happening."

More specifically, in September 2010, DCAA found that the proposed \$386 million budget in OOI contained a total of \$88 million (23%) in unallowable contingency funds. DCAA based this finding on a lack evidence to support that the amounts budgeted were for events that could be

“foretold with certainty as to time, intensity, or an assurance of their happening,” as OMB requires. Subsequently, we requested that DCAA conduct follow-up work to look more deeply into how the contingency costs were estimated. Following the initial OOI audit, DCAA auditors worked with OOI in a further effort to identify verifiable data to support the contingencies. This additional work failed to surface evidence to support the contingency amounts, confirming the original finding that the \$88 million proposed is unallowable.

Likewise, in March 2010, DCAA auditors found that the \$298 million cost proposal for ATST contained \$62 million (21%) in unallowable contingencies. Most recently, DCAA has identified \$74 million (17%) in unallowable contingency costs budgeted out of the \$434 million unauditible cost proposal for the NEON project.

In its work, DCAA has also noted, that there are a lack of controls over the contingency funds. Awardees can draw down these funds at any time, just as they can normal funds. While awardees are supposed to seek NSF approval before drawing down contingency funds in excess of a certain threshold, DCAA found that there are no effective technical barriers to prevent them from being drawn down in advance and used for purposes other than materialization of a contingent event. Accordingly, there is a heightened risk of fraud or misuse of these funds.

We recognize that identifying funds needed for uncertainties that arise during the conduct of complex projects is an important part of project management; however, we remain concerned by the risks associated with NSF’s approach of awarding all contingency funds to awardees, without regard to whether they are consistent with the cost principle and supported by verifiable data. Simply stated, placing unallowable contingency funds into awardees’ hands is not prudent financial management. Therefore, we have recommended that NSF require the awardees to remove unallowable contingencies from their proposed budgets and that NSF discontinue its practice of awarding and funding such contingencies. NSF, not the awardees, should hold the portion of the funds budgeted for unforeseen events that cannot be supported by adequate cost data and only release those funds if and when the awardee has demonstrated – through verifiable cost data – that the funds are needed.

We are currently working with NSF to resolve both these contingency-related findings, and in the case of the NEON and ATST proposals, findings that rendered the entire proposals unauditible. Because of the large dollar amounts associated with contingencies in NSF awards, the risk we see posed by the agency’s current process of funding these costs, and the complexity of the issue, we have also started additional audit work that focuses broadly on NSF’s management and use of contingencies in its awards. Among other things, we are beginning work to examine the use of Recovery Act funds for contingencies in the construction of the Alaska Region Research Vessel in light of these findings.

**Stimulus Spending:** Like all OIGs of agencies that received ARRA funding, our office has been involved for several years now in the oversight of NSF’s stimulus spending. One of the special risks our office will be paying attention to as we continue to conduct audits of ARRA awards relates to the impact of the acceleration of ARRA expenditures. Last fall, OMB issued a Memorandum (M-11-34) to the heads of federal departments and agencies urging them to spend remaining ARRA funds quickly and efficiently. Federal agencies were instructed to recapture funds not spent by September 30, 2013, to the greatest extent permitted by law. After receiving

this memorandum, NSF reviewed its ARRA portfolio and found over 600 awards with expiration dates after September 30, 2013. NSF has indicated that its ARRA awardees should look for opportunities to accelerate their award spending where this can be done “responsibly within the terms and conditions of their awards.” In addition, NSF is identifying candidates for which they will seek waivers from OMB so that spending can continue in some cases into 2015, in order for the original projects to be completed.

Accelerated spending of these “stimulus” funds has always been a goal of ARRA. Moving funds quickly into the economy, rather than allowing them to languish within the treasury, is a key component of economic recovery. However, the nature of scientific discovery, unlike manufacturing or infrastructure maintenance, is difficult to accelerate, and the need to increase spending may prove challenging. Our continuing audits will examine ARRA award expenditures, including ones that may have been accelerated, to ensure that they are allowable and used for the purposes of the intended award and that the pressure to spend available funds has not led to improper decision making.

#### Oversight of NSF Internal Operations

While much of our work focuses on funds NSF provides to third parties in grants, cooperative agreements, and contracts, we also examine how NSF spends money internally for its own operations and activities. In light of the current economic climate, it is essential that these expenses are reviewed to identify opportunities for cost savings, funds to be put to better use, or more efficient purchasing practices.

Our reviews of NSF’s expenditures for such things as wireless plans and devices and refreshments for panelists demonstrated the impact of NSF’s decentralized approach to these purchases. In each instance, there was no Foundation-wide coordination of the purchase of similar items and practices varied across the individual directorates and divisions. While we cannot identify the precise financial impact, our reviews have recommended actions that should result in more efficient purchasing practices and potential cost savings.

**Wireless Plans and Devices:** Our review of wireless device and service purchases made by NSF offices identified nearly \$530,000 in such purchases in FY 2009 and more than \$660,000 in FY 2010. NSF owns more than 700 wireless devices, including smart phones and tablets, for approximately 1,500 staff.

NSF’s ad hoc, decentralized process for purchasing wireless assets and services has resulted in a myriad of devices and plans across the Foundation, and frequently even within individual offices. NSF does not have a policy for the procurement and use of wireless devices and services, nor does it have any policy regarding which NSF staff *need* wireless devices or which devices are appropriate for their needs. Further, individual offices within the agency generally purchase devices and plans on an item-by-item basis. Because the purchases were small and not made centrally, NSF had not taken advantage of economies of scale or government-wide purchasing programs in an effort to lessen costs.

In response to our recommendations, NSF has taken several actions including implementing an agency-wide policy on the purchase and use of wireless devices and providing for centralized procurement of wireless devices and plans in order to receive the benefit of economies of scale.

**NSF Light Refreshment Purchases:** Our review of charges on NSF purchase cards for refreshments for merit review panelists and others attending meetings at NSF identified nearly \$500,000 in food-related payments in both 2008 and 2009. NSF pays for these refreshments out of program funds, in addition to the flat-rate or per diem compensation it provides to attendees to cover all of their expenses including meals. The flat rate compensation is \$480 for each meeting day and \$280 for each travel day to cover an honorarium, hotel, local travel, and all meals. The per diem rate includes \$71 for meals and incidentals, in addition to lodging and travel expenses.

We found there was no Foundation-level oversight or coordination of refreshment purchases and no uniform guidance to ensure consistent decision making within and across NSF divisions. As a result, refreshment purchase practices varied widely across NSF. We recommended that NSF assess whether it is a prudent use of federal funds to spend nearly a half-million dollars a year to provide extensive mid-morning and mid-afternoon refreshments for meeting attendees. If NSF chooses to continue providing food, we recommended that the agency centralize its provision of refreshments to improve control over the process and ensure it is carried out reasonably, consistently, and responsibly.

In response to our recommendations, NSF has informed us that it plans to use a multiple vendor blanket purchase agreement for light refreshments which will enable the agency to leverage economies of scale and standardize menu options in order to lower costs.

**Independent Research/Development Travel:** A review by the Office of Investigations identified concerns about the use of Independent Research Development (IR/D) travel by temporary NSF program staff appointed under the Intergovernmental Personnel Act, Visiting Scientists, Engineers, and Educators and permanent staff. The issues raised included significant internal control concerns with respect to training, financial control, and oversight involving the IR/D program. In response to our review, NSF created a task force to strengthen oversight and accountability in the program and has begun implementing some of the task force recommendations. We built upon our initial work in this area by conducting an audit to obtain a more in-depth look at the IR/D program.

Our audit found that NSF did not have sufficient management controls to monitor the IR/D program, which involved travel costs during 2010 of \$1.8 million for 314 participants. For example, NSF management could not determine the program's total annual cost nor did it have the ability to prevent individual travelers from exceeding the 50-day limit for IR/D activities. Further, NSF had not identified IR/D program goals or quantified the program's outcomes. As a result, NSF did not have the performance measures necessary to evaluate the value of the program to the agency's mission.

In response to our recommendations, NSF has strengthened controls over the IR/D program in several ways, including requiring program participants to file an annual written report of their IR/D activities. NSF's corrective action plan to address our recommendations is due May 16.

**Other NSF Workforce Management Issues:** We have also examined other concerns about workforce management at NSF. For example, a recent audit recommended that NSF use staffing assessments to create more effective ways to conduct oversight of awardees with existing staff. As mentioned earlier, NSF has indicated that it has reduced the number of site visits to monitor high-risk awardees as a result of insufficient staffing.

In addition, we conducted an audit on the personnel management challenges associated with NSF's use of temporary employees under the Intergovernmental Personnel Act (IPA). While we agree that IPAs and other temporary personnel bring fresh ideas to the Foundation, there are both financial and workforce management issues associated with NSF's reliance on IPAs. With regard to workforce issues, IPAs work side-by-side with career employees, but they remain employees of their home institution and are treated differently in several respects. For example, IPAs are not required to track and record their hours worked as federal employees are required to do and until recently IPAs' performance was not rated. Such disparities may undermine workforce morale. IPAs can also cost NSF more than career employees. Examples of additional costs associated with IPAs include: salaries that can exceed the maximum federal pay limits; the cost of the IPA's home institution's fringe benefit package, which NSF pays; and amounts NSF pays IPAs for lost consulting income (can be up to \$10,000). We are planning to follow up on our 2004 audit of costs associated with the use of IPAs.

Finally, our 2011 audit of NSF's oversight of financial conflicts of interest found that NSF is not required to monitor or oversee institutions' implementation of their conflicts program nor are institutions required to notify NSF when they allow research to continue without conditions or restrictions on an identified conflict.

#### Investigative Matters

The Office of Investigations conducts civil/criminal, administrative, and research misconduct investigations. For the past three years, our investigative recoveries for fines, restitutions, and other actions have totaled \$21.6 million. We investigate violations of federal civil and criminal statutes by applicants for and recipients of NSF funds, as well as NSF employees and contractors. When we find substantial evidence of wrongdoing, we refer cases to the Department of Justice for civil or criminal action and recommend administrative action by NSF in appropriate circumstances.

We also investigate allegations of research misconduct. Research misconduct damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in government-funded research. It is imperative to the integrity of research funded with taxpayer dollars that NSF-funded researchers carry out their projects with the highest ethical standards. For these reasons, pursuing allegations of research misconduct by NSF-funded researchers continues to be a focus of our investigative work.

In addition, in response to provisions in the America COMPETES Act of 2007, NSF has instituted efforts to improve ethics training at universities. NSF requires universities to have a 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. Additionally, institutions must designate one or more persons to oversee compliance with the Responsible Conduct of Research training requirement. This training includes topics such as plagiarism and proper citation practices, data fabrication and falsification, and conflicts of interest. Although the universities do not have to provide a copy of the NSF required ethics training plan with their proposals, their plans are subject to review. We recently initiated a review of such plans with a goal of providing feedback to NSF on their strengths and weaknesses.

We are currently focusing significant investigative attention on fraud in the Small Business Innovation Research (SBIR) program. Since 2009, we have opened 70 investigations involving SBIR awards, and we currently have 40 active SBIR investigations, 15 of which are being coordinated with the Department of Justice for possible civil/criminal action. The cases involve companies receiving duplicate funding from more than one SBIR agency (11 agencies participate in the SBIR program), conversion of award funds to personal use, and/or false statements and claims related to SBIR program eligibility. Since 2009, our SBIR cases have resulted in over \$1.2 million in restitution, funds returned to NSF, and funds put to better use. Based on our investigative findings, we have also made recommendations to help NSF reduce the risk of fraud by requesting additional information from awardees. NSF has implemented all of our recommendations.

Our office also leads an SBIR Working Group working under the Council of Inspectors General on Integrity and Efficiency (CIGIE), which is focused on combating fraud, waste, and abuse in this program. An important component of this effort is a working group of Special Agents from thirteen federal agencies, led by our office and the Department of Energy OIG, in which agents share information on ongoing cases, lessons learned, and best practices related to SBIR investigations.

Finally, pursuant to the National Defense Authorization Act for FY 2012, which reauthorized the SBIR program, our office, on behalf of the CIGIE working group, has been working with SBA to develop program-wide SBIR anti-fraud certifications modeled on those long in use at NSF. These certifications help deter fraud in SBIR/STTR programs and improve the government's ability to prosecute such fraud when it does occur.

In other government-wide efforts, with the Federal Housing Finance Agency IG, I am leading a Suspension and Debarment Working Group which is focused on increasing knowledge and use of suspension and debarment to protect government funds against fraud, waste, abuse and noncompliance with contract provisions or applicable law.

#### Relationship between the Foundation and the OIG

Our office has been working to build a constructive relationship with the Foundation, and I am pleased with the progress we have made in that direction. In August 2009, three months after I became the Inspector General, then-director Dr. Arden Bement issued a memorandum to all NSF employees emphasizing his expectation that all NSF employees and offices would cooperate fully with the OIG. In one of his first actions as director, Dr. Suresh re-issued that memo in November 2010.

We have also worked with the Foundation to create a more productive audit resolution process. The process of resolving audit recommendations and following up to ensure that institutions implement corrective action is an important tool to address current issues and to prevent future problems at NSF-funded institutions. Therefore, a robust audit resolution and follow-up process is essential to ensure that institutions receiving funds from NSF take the appropriate corrective action to properly manage that funding. An NSF/OIG audit resolution working group meets regularly to make the audit resolution process more effective.

We also track management's responses to our management implication reports (like those on the purchase of wireless devices and plans and light refreshments) to ensure that it takes appropriate action to address the problems we identify. We have found that sustained attention from our office can result in an outcome that benefits all.

Conclusion

Our work reflects my office's sustained commitment to helping NSF be an effective steward of taxpayer dollars and benefits from the support of NSF management across the Foundation. We look forward to our continued partnership with NSF and the Congress to this end.

This concludes my statement. I would be happy to answer any questions.

Questions for the Record  
The Honorable Mo Brooks

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY  
SUBCOMMITTEE ON RESEARCH AND SCIENCE EDUCATION

*Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science  
Foundation*

Wednesday, May 9, 2012  
2:00 p.m.

QUESTIONS FOR MS. LERNER:

1. How many site visits a year does your office make? Are these in addition to the NSF visits, in conjunction with them, or totally separate? How do these visits differ, and why are these visits important?

As part of the agency's responsibility to assess awardees' financial and programmatic capability, NSF program officers conduct site visits at awardee institutions through the Award Monitoring and Business Assistance Program.

OIG does not conduct site visits in the same sense that NSF does. Entirely distinct from NSF, OIG does work on site at recipient institutions in the course of audits and investigations. We also travel to recipients to engage in activities intended to prevent future fraud, waste and abuse. We do not travel with NSF staff when they conduct their site visits, and they do not accompany us for our audit, investigative, and prevention visits. NSF coordinates its site visits with my office to ensure that it is not visiting an institution when we are conducting an audit involving that institution.

With regard to audit work, on-site visits are an important part of the fieldwork stage of the audit process in which auditors obtain documentation and evidence to support audit findings and recommendations. More generally, this work helps determine awardee compliance with Federal and NSF requirements. OIG staff also conduct on-site work at awardee institutions for investigations. This work includes interviewing individuals and obtaining documentation. As

noted above, we also conduct on-site work as part of our efforts to prevent fraud. To the greatest extent possible, my staff conducts prevention activities in conjunction with investigative work. This is particularly so in the area of Research Misconduct investigations. Our scientific investigators routinely meet with and provide presentations to students, principal investigators, and research administrators when traveling to an institution for investigation-related reasons.

Our visits to awardees are essential activities in the performance of our statutory mission to prevent and identify fraud and waste of government funds. On-site work allows us to do physical inspections of equipment and other types of property, to select transactions for testing and have immediate access to individuals who can answer questions that arise from our inspections and testing. Site visits also enable us to conduct in-person interviews, which help us assess the interviewees' behavior and physical responses to our questions (which can provide important insights to our auditors and investigators). In-person, face-to-face interviews are particularly indispensable tools for investigators, who need to assess the credibility of potential witnesses and defendants. Finally, our preventative activities educate the awardee community and develop sources within that community, assisting in the accomplishment of our statutory mission of preventing fraud and waste.

2. You noted the continual challenge of monitoring sub-awardees in your testimony. Are there existing requirements or regulations for the monitoring of sub-awardees? Why does this continue to be a challenge for grantees and for the Foundation?

There are existing Federal and NSF requirements for monitoring sub-awardees. Federal requirements are found in OMB Circulars. These requirements include stating that auditors conducting Single Audits must review an entity's monitoring documentation to determine whether it provided reasonable assurance that sub-awardees complied with applicable requirements.

NSF also has requirements pertaining to sub-awardee monitoring in research terms and conditions and in its *Proposal and Award Policies and Procedures Guide*. For example, the

Guide states that grantees are responsible for ensuring that all sub-award costs comply with the applicable cost principles and procedures.

There are three primary reasons for NSF's continuing challenge in monitoring sub-awardees. First, NSF and its grantees rely on A-133 audits to find sub-award compliance problems. However, the quality and depth of these audits vary considerably, so they do not replace the need for grantee and NSF monitoring.

Second, grantees often lack adequate policies and procedures for sub-award monitoring or have not fully implemented them. It is important for NSF to ensure that awardees pass federal funds through to sub-awardees that have adequate financial systems to manage these funds to prevent NSF from paying unallowable costs.

Finally, NSF lacks analytical data and tools that would specifically indicate how sub-awardees are spending their NSF funds. Currently, NSF receives expenditure reports by award, and not by budget line items. As a result, NSF cannot easily identify how much has been expended on sub-awards in any given award.

3. It seems that the accelerated expenditure of stimulus funds is a challenge for scientific endeavors. How many NSF grants funded by the stimulus package are expected to require OMB waivers so spending can continue into 2015? How much money is directly associated with the 600 awards with expiration dates after September 2013? Outside of the issues with accelerated expenditures, are there other stimulus-related issues or concerns that have materialized through your work?

NSF has reported to us that 23 ARRA-funded awards have expiration dates in 2015 and that it has not decided which awards may require waivers. NSF has reported to us that the 618 ARRA-funded awards with expiration dates after September 2013 represented \$1,023,069,320 in ARRA funds and had expended \$430,092,996 as of June 4, 2012.

In addition to the risks associated with accelerated expenditures, we have identified risks associated with the use of contingency funds in NSF's three large construction projects which received \$400 million in ARRA funds: the Alaska Region Research Vessel (ARRV), the Ocean Observatories Initiative (OOI), and the Advanced Technology Solar Telescope (ATST). In total, \$226 million in unallowable contingency costs have been identified in the proposed budgets for OOI and ATST, \$55 million of which are ARRA funds. We have recommended that NSF cease to award unallowable contingency costs and that NSF hold the contingency portion of the budget until the awardee can demonstrate a bona fide need and submit verifiable cost data to support its request for the funds.

4. In your testimony you noted several Foundation-wide policy or issue areas, including those surrounding wireless devices and planning and refreshment policies. Are you satisfied with the way NSF has responded to the recommendations? How are these issues identified as Foundation-wide concerns? Are there other issues your office is reviewing that could end up needing Foundation-wide responses?

Over the course of several months, NSF responded fully to our recommendations regarding wireless and refreshment purchases. In response to our recommendations concerning the purchase of wireless devices and plans, NSF has taken several actions, including implementing an agency-wide policy on the purchase and use of wireless devices and providing for centralized procurement of wireless devices and plans in order to receive the benefits of economies of scale.

With respect to light refreshments for panelists, NSF is moving forward with a multiple vendor blanket purchase agreement (BPA) for such purchases. Several vendors have submitted quotes at or below the average market prices that NSF is currently spending "per person, per day" on light refreshments, so it appears that the agency will realize cost savings as a result of this effort.

In September 2011, we issued a report and recommendations concerning NSF's contractor employee background investigations, and we are engaged in ongoing discussions with NSF management as it prepares its response. In light of the current fiscal environment, we will

continue to examine NSF's expenses for internal operations and activities for possible cost savings.

5. Please describe the oversight of NSF and an award institution's financial conflicts of interest? Is it the opinion of your office that NSF should be notified by an Institution when a conflict occurs but is allowed to continue? Should the Foundation monitor or oversee the implementation of these policies, and if so, how?

NSF's Conflicts of Interest Policy requires grantee institutions that employ more than 50 people to maintain a written and enforced conflicts policy. The Policy also requires that institutions manage, reduce, or eliminate all conflicts for each award prior to expending award funds. Institutions are only required to notify NSF when they have determined that they cannot satisfactorily manage a conflict. Based on its existing policy, NSF is not required to provide monitoring and oversight of the institutions' implementation of their conflicts programs, and institutions are not required to notify NSF when they allow research to continue without imposing conditions or restrictions on an identified conflict.

Under certain circumstances, permitting research to continue without restrictions may be justified; however, given the risk such a "waiver" brings to the agency, NSF as the funding agency, should be informed of all such instances so it can assess the situation and ensure that the decision is appropriate. NSF's policy does not require institutions to notify NSF when such waivers are granted or to provide information regarding the unmanageable conflict. Implementing a reporting process whereby institutions notify NSF of circumstances when they are considering allowing research to proceed without imposing conditions or restrictions provides NSF information as to the volume and frequency of occurrence, and also enables NSF to assess the appropriateness of institutions' actions. Such an approach would provide the institutions with the flexibility to address conflicts, while enabling NSF to ensure that this discretion is not abused and that the objectivity and integrity of the award is maintained. In addition, NSF has a stewardship responsibility to ensure that conflicts are properly identified and effectively and transparently managed.

Because NSF's policy does not require the Foundation to oversee or manage its grantee institutions' implementation of their conflicts programs, NSF cannot be assured that the institutions are properly managing, reducing, or eliminating conflicts or that unmanageable conflicts are being reported to NSF. As a result, the public trust and an agency's integrity could be undermined. We have recommended that NSF have a procedure in place to ensure that conflicts at its grantee institutions are managed, reduced, or eliminated. Such a procedure should include developing a method or oversight process to ensure that institutions have conflicts policies and procedures in place that are consistent with NSF's policy and that the institutions are implementing them appropriately. The selected approach could be risk-based or on a sample basis and could include outreach and/or conflicts training.

NSF agreed with our recommendation, and its corrective action plan stated that it would survey a representative sample of institutions to determine how its grantee institutions oversee and manage conflicts and to identify areas for improvement.

6. Your testimony noted that temporary employees receive "salaries", "fringe benefits", and "lost consulting income" from NSF that exceeds federal pay limits. What authority provides NSF the ability to pay these expenses to temporary employees?

Under the authority of the Intergovernmental Personnel Act (IPA) NSF may agree to pay all, some, or none of the costs associated with the assignment of temporary employees. While at NSF, IPAs remain on the payroll of their home institution and NSF reimburses the home institution for the IPA's salary and the employer's share of benefits using grants funded through its Research and Related Activities and Education and Human Resources Activities appropriations. According to the Office of Personnel Management: "Agencies may consider the income from certain private consulting work as part of the academic pay of university employees. Specifically, when the regular tour of duty for a university employee includes an allotment of time for consulting, or when the employee is performing any job-related consulting that cannot be continued during the assignment, the income received from the consulting may be regarded as part of the employee's academic pay." NSF's policy, as stated in its Personnel Manual, is to limit the allowance for lost consulting income to a maximum of \$10,000 annually.

Chairman BROOKS. Thank you, Ms. Lerner.

At this point the subcommittee hearing will be in recess until five minutes after the last vote in this series of votes on the House Floor.

[Recess.]

Chairman BROOKS. The Subcommittee on Research and Science Education will terminate its recess and come back to order.

Again, I want to welcome everybody to today's hearing entitled, "Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science Foundation."

Ms. Lerner, I want to reiterate that I thank you for your testimony and reminding members that committee rules limit questioning to five minutes.

The Chair will at this time open the round of questions.

The Chair recognizes himself for five minutes.

In the area of contingency funding for major research facilities construction, can you define the, "significant problems," your office found with the proposed budgets? And based on comments from the National Science Foundation and the NSB at a recent hearing on these projects, it seems that NSF is not in agreement with the OIG findings.

Can you please explain your thoughts and the major differences between OIG's oversight and NSF policy? And finally, will your office be conducting reviews of any other NSF construction projects with this contingency issue in mind?

Sorry it is back to back to back questions, but if we need me to repeat any of them, I will.

Ms. LERNER. I will do my best to keep them all in my head.

The issue that we found with contingencies is a fairly straightforward one. DCAA did three audits of proposed budgets for ATST, OOI, and NEON for us, and in each instance they found that the amounts proposed for contingencies were not consistent with the governing cost principle which requires that the amounts be and I am going to use the specific language NSF has, that they be for events the occurrence of which can be foretold with certainty as to time, intensity, or with an assurance of their happening. The actual cost principle says it in the negative, but that is the bottom line. They want no unknowns, and DCAA found that the amounts in all three proposals were not consistent with the cost principle, and they were also not supported by verifiable cost data, which DCAA would want to see for any cost associated with the proposal, not just contingencies.

So, I think the issue that we have is perceived by some as definitional. NSF has stated publicly that it believes that these amounts for contingencies are for known events that can be foretold with certainty, and DCAA has looked at the proposals. They are in the business of looking at these types of proposals, and they have found the opposite, that they are not consistent with the definition and that they are not supported by the type of cost data that they would require.

So that is why they have questioned the amounts here. That does not mean just because these amounts, you know, are questioned by DCAA that they can't be considered by NSF in coming up with its own budget for a project. What the cost principle does is govern the

money that you give to third parties, and it says if you are going to give money to third parties, then what you do has to be subject to audit, and it has to be consistent with the cost principles and supported by adequate cost data.

If you have amounts for contingencies that aren't quite that precise and that can't be foreseen with that degree of certainty, the government can identify those, quantify them as best they can, and retain them in the government's hand until the contingent events materialize and then provide them to the recipients for their use.

So just because these amounts cannot go into the hands of the recipient does not mean that the government can't try and identify them and have funds available for them. You just don't put them in the hands of the third parties.

Chairman BROOKS. Thank you. Moving on to your written testimony that was submitted to the subcommittee, I am going to read from it for a moment. It states, "We are currently focusing significant investigative attention on fraud in the Small Business Innovative Research or SBIR Program. Since 2009, we have opened 70 investigations involving SBIR awards, and we currently have 40 active SBIR investigations, 15 of which are being coordinated with the Department of Justice for possible civil and or criminal action. The cases involve companies receiving duplicate funding from more than one SBIR agency. Conversion of award funds to personal use and or false statements in claims related to SBIR Program eligibility."

Based on this testimony it appears that fraud is a significant problem with the Small Business Innovative Research Program with the issues ranging from plagiarism to reports of personal use of funds and more.

Of the 30 investigations that are inactive, how many were required to return funds to the government? How many were resolved without issue? And, of the 40 that remain active, how much funding could the government potentially recover?

Ms. LERNER. I will have to get back with you with the absolute specifics on that. I believe for the \$1.2 million that we cited as recovering to date those came from approximately nine matters that were open, and in terms of the entire dollar amount with—effected by the ongoing investigations we can report back to you for the record on that.

But I would say the vast majority of people who participate in the SBIR Program are good people doing good work for the government, but because it is a program for people who are new to the government and because it is focused on small businesses, there are opportunities for folks who may want to misuse the government's money to take advantage of the system, and we are trying to focus on them.

But the vast majority of recipients, I think, are well intentioned and doing their best for the government.

Chairman BROOKS. In addition to anything that you just stated, do you have any other judgment or insight as to why fraud in the SBIR Programs seems to be such an issue, and do you have a judgment as to whether there is anything that the National Science Foundation should be doing that would minimize or eliminate the risk of this fraud?

Ms. LERNER. Absolutely. One of the challenges that the agencies have had with, SBIR funds in the past is that there has been a lack of available information to identify instances of duplicate funding, and investigating these cases has been very challenging, and our office recognizing that back in 2009, set up a working group within the Inspector General community to bring together the Offices of Inspector General that have SBIR Programs and focus efforts on working together to combat fraud. We have a special agent working group that is led by members from my office and from the Department of Energy where the agents who are working these investigations are sitting together and talking about what they are seeing, sharing ideas so that we can identify instances of duplicate funding, and we can share information more easily. There have been improvements to the Tech Net database which has made identifying possible duplication of effort easier.

And, we are also leading an effort to push out lifecycle certifications. NSF over the past decade has had certifications throughout the lifecycle of an SBIR award, which put people on notice of what they are certifying to when they receive government funds, and make it easier to prosecute them if they misuse them. And, it is a best practice that makes our cases easy to be accepted for prosecution if there is fraud, and the SBIR Reauthorization Act has asked the SBA to push these types of certifications out across the SBIR community. We are coordinating with SBA to ensure that happens.

So there are a lot of good things that can be done, and we are in the midst of pushing a lot of that effort here at NSF OIG.

Chairman BROOKS. Thank you, Ms. Lerner. There may be a second round of questions, but at this point I recognize Mr. Lipinski for his questions.

Mr. LIPINSKI. Thank you. I want to get back to the issue of contingency funds as part of facilities construction. As I mentioned in my opening statement, the Office of Management and Budget is undertaking a major review of its Circular A-21 that governs federal grants and cooperative agreements.

In February the OMB released proposed language that would significantly change the cost principles for contingency funds for major research facilities. In particular, the language describes contingency funds as, "acceptable and necessary," and it leaves, "the method by which contingency funds are managed and monitored," up to each agency, seeming to give discretion to each agency to manage and monitor contingency funds.

So I am saying these changes, these proposed changes seem to give the direction to each agency to manage and monitor the contingency funds.

Now, your description of the contingency funds for NSF's current projects is unallowable based on the current OMB cost principle. Do you have a position on the reform described in this OMB draft proposal?

Ms. LERNER. I recall the provisions that you read. I think there are also provisions in the proposed language that was in the Federal Register Notice that speak to the need for amounts for contingencies to be supported by verifiable cost data. So that is something that is consistent with the position that we have been taking.

I also lead a working group that pulled together comments of the IG community for OMB on the various issues being considered as part of that Federal Register Notice, and on the issue of contingencies, we suggested that OMB make an effort to harmonize the definition of contingency that is in the cost principle with the definition of contingency that is in the FAR, which is more nuanced and makes a distinction between amounts for contingencies that arise from presently-known and existing conditions, the effects of which are foreseeable within reasonable limits of accuracy, and those that can be included in a cost estimate and distinguishes between—from events that are presently—from costs which arise from presently-known or unknown conditions, the effects of which can't be measured and are excluded from cost estimates.

So, we think in terms of clarity, if we could harmonize with the definition for the cost principle with the definition that is in the FAR, it would be clearer to everyone. If there are certain types of contingencies that are appropriate to provide third parties, there are other parts, there are other types of contingencies that will, should be maintained and held by the government.

Mr. LIPINSKI. So you are saying, though, that the two different—using both of those types of contingencies should be allowable, but you are making the distinction as where it is going to be, the government is going to hold it or it is going to go directly to the third party?

Ms. LERNER. If the government holds it, there is not a question of allowability. Allowability is an issue when you are dealing with third parties. So what we are talking about there, when you are dealing with contingent expenses, there is a spectrum. There are unknowns, and the spectrum runs from your known unknowns to your unknown unknowns, and the position that the FAR takes is your known unknowns you can put in a proposal or in a cost estimate because they are known with sufficient clarity, and you are capable of deriving necessary supporting data that the risk associated with providing those funds to third parties is outweighed by the clarity that you have. So known unknowns can be provided to a third party.

Unknown unknowns the government can identify them, the government can set aside funds for them, but the government needs to hold those funds and provide them to the third party when the contingent events achieve the type of clarity that would enable them to be supported by the necessary cost data and be consistent with the principle.

So the idea is not that you cannot use government money for both types of contingencies. It is just when can you give the money to people outside the government, and the position of the FAR, and I think indirectly the position that is in the current cost principle, is that the only types of contingencies, costs associated with contingencies that can go outside of the Federal Government are ones that are known with sufficient accuracy to ensure that they can be supported, that they are consistent with the definition and that they can be supported by cost data.

Mr. LIPINSKI. Now, the proposed language, new language, are you saying that still does not address that?

Ms. LERNER. The new language does require that, to the best of my recollection, it does require that the contingent amounts be supported by verifiable supporting data, and so it does make a requirement that DCAA would say we have not been able to see in any of the audits that we looked at. In each of the audits that DCAA conducted, and they have asked repeatedly over the course of almost three years in some of these audits DCAA, has not been able to find the type of supporting data that they would want to see to accept those costs.

So there is a requirement in the proposed definition, that the costs be supported by verifiable supporting, data and that makes sense to me.

And the other statements that contingency is a necessary part of budget formulation are not inconsistent with the position that we have been taking. Our position has been not that the government can't think about contingencies when it makes its budgets for an award, but that the problem arises when you want to provide money to third parties for contingencies. And that money has to be consistent with the cost principle and supported.

Mr. LIPINSKI. Well, if the chairman will allow me to follow up just one thing. The DCAA is in the business of auditing contracts, MREFC Projects are cooperative agreements. So is DCAA in the business of auditing cooperatives' agreements, and does this cause a problem when you are looking at what DCAA is looking at in an audit because it is a cooperative agreement and not a contract?

Ms. LERNER. No. That is not a problem. DCAA does audit some cooperative agreements. They are in the business primarily of looking at contracts, but they also routinely do look at cooperative agreements for us.

Mr. LIPINSKI. All right. My time is well past. I will yield back right now.

Chairman BROOKS. The Chair recognizes Mr. Bucshon from the great State of Indiana.

Mr. BUCSHON. Thank you, Mr. Chairman. Do you believe that staffing constraints are a major impediment to achieving better grant and contract administration?

Ms. LERNER. I certainly believe that that is the position that NSF has taken. I think that in an ideal world for the oversight that NSF conducts that they would prefer to have more people. I think we are obviously pretty far from an ideal world, and so we have to look at ways of working smarter and working within the staff that we currently have. We have recommended to NSF that they use the process that they have for coming up with the number of staff they would like to have to simultaneously look at the business processes and identify opportunities for doing things differently and make do in these leaner times.

Mr. BUCSHON. Do you think they could be more effective? Are they doing a good job?

Ms. LERNER. I think they are doing what they can. They have not been able to do as, you know, they planned in '10, and '11, to do more on-site monitoring visits than they were able to do. I think there are opportunities. We are not going to be in a situation where money is going to be flowing like it was five years ago. So we have to look at things like virtual site visits: the staff at BVFA has been

conducting some pilots of virtual site visits, which are a great idea if we are not going to be able to put people on a plane and get out there. I think there are things that we can do with data analytics, particularly when NSF moves to a new financial management system that will enable us to do more from our seats in Ballston and oversee funds better.

Mr. BUCSHON. Okay. You testified that the NSF canceled six site visits to monitor high-risk awardees in fiscal year 2010, and fiscal year 2011. How many site visits does the office do a year approximately?

Ms. LERNER. I think they had planned to do 30 in one year and 32 in the other, and they canceled six. So obviously even when they do the site visits, they are only able to get out and touch a very small number of institutions. That is why it is even more important to develop, I think, a data analytics capacity and the ability to do more work from the desks at NSF to stay on top of where money is going.

Mr. BUCSHON. Okay. Are there any major challenges you face as Inspector General when working with the management at NSF?

Ms. LERNER. Ultimately I have found NSF management very open to the issues that we are raising, even if sometimes they don't want to hear, and don't like what I am saying. They do listen, and we have established strong working relationships with the folks both on the program side and in the directorates as we attempt to grapple with issues like audit resolution and with the contingency issues.

We certainly, as you can see, are pretty far apart on the issue of contingencies, but everyone is talking, everyone is trying to work productively on it, and I do think that we will see progress on that.

Mr. BUCSHON. Okay, and what happens if the Foundation doesn't agree with OIG recommendations?

Ms. LERNER. There is a process for audit resolution. We make the recommendation: we can't force the Foundation to do anything. The recommendation goes into the audit resolution process, and if we can't work out a way of resolving an issue that we both agree on, then the issue can be raised to an audit resolution official. NSF makes its pitch for the outcome that it believes is necessary, our office makes a pitch for what we believe is necessary, and ultimately the audit resolution official makes a determination for the agency.

Mr. BUCSHON. I yield back, Mr. Chairman.

Chairman BROOKS. Thank you, Mr. Bucshon.

The Chair next recognizes Ms. Bonamici from the great State of Oregon.

Ms. BONAMICI. Thank you very much, Mr. Chair.

Ms. Lerner, I want to ask you about some, another workforce management issue you raised in your testimony, and that is the use of and costs associated with and challenges associated with the temporary employees under the Intergovernmental Personnel Act. And it appears that the last audit done of costs associated with the use of IPAs was in 2004.

So if you could talk, that is what you mentioned in your testimony. If you could review for us what recommendations might have been made in that 2004 report and what changes, steps you

have taken since then with respect to the IPAs, and perhaps as you are talking about that, if you want to mention or touch on some of the issues that you raised in your testimony as being cost concerns including the possibility that salaries can exceed the maximum federal pay limits, the cost of the IPA's home institutions fringe benefit packages which NSF pays, and the lost consultant income.

Ms. LERNER. Certainly. Our office back in 2004 did look at, and attempt to identify the incremental costs, the added costs of having visiting personnel at NSF. There are two types of visiting personnel; those there pursuant to the Intergovernmental Personnel Act, that do have extra dollars associated, and those through the Visiting Scientists, Engineers, and Educators' Program, which do not have the same costs associated with it, with the exception of R&D-related costs.

What we found in 2004 was that the NSF, when an IPA comes on board, NSF pays the salary that the IPA receives at the home institution, which in some instances can exceed the maximum amount a federal employee would receive. They also cover the fringe benefits that are paid by the institution. So that is an added cost, and finally, there are payments made for lost consulting to IPAs, and when we looked at 147 IPAs in 2004, those incremental costs amounted to \$1.3 million.

There is also another \$1.1 million associated with IR&D travel—the Individual Research and Development travel, and that is money to allow both the IPAs and the folks who come to NSF under VSEE appointments, and career employees, to maintain active research programs while they are at NSF. So those costs added another \$1.1 million.

We did a very thorough analysis of the way that the dollar amounts were calculated and identified some difficulties NSF was having in calculating some of the amounts for IPAs and made recommendations to NSF to improve its calculations. And our plan this year is to hopefully this summer to do an update of that job to look again to identify the incremental costs associated with IPAs because the number of IPAs has gone up at NSF since 2004, and to see the progress that the agency made implementing the recommendations that we made in 2004, and whether there are any other issues that we want to bring to their attention about those costs at this point.

Ms. BONAMICI. Thank you, and I know that the committee would want to know the results of that as you are working on that.

Would you foresee any significant risks to NSF in attracting top talent if some of these issues are limited or reduced or modified?

Ms. LERNER. There is a balance to be struck and I know certainly that there are people who would be very concerned that if we don't continue to do things the way that we have been doing, that we will have an even more difficult time attracting people to come to NSF as IPAs. And that is a concern, but we also are at a point where I think every dollar that we spend has to be examined and examined rigorously, and there needs to be a really strong cost benefit analysis done when we decide to spend money, and we shouldn't just keep spending it the way we have been spending it because that is the way we spent it.

Ms. BONAMICI. Thank you. We appreciate that.

And you mentioned the number of IPAs in 2004, and said that the number has gone up. Do you happen to know how many are—

Ms. LERNER. I believe when we conducted our IR&D report, the number was up to 314.

Ms. BONAMICI. Thank you.

Ms. LERNER. Uh-huh.

Ms. BONAMICI. Thank you. I yield back. Thank you, Mr. Chair.

Chairman BROOKS. The Chair is going to, given our time, go ahead and open up for a second round of questions. I am going to have to go to the House Armed Services Committee hearing as soon as I finish with my round, and I am going to turn the gavel over to Mr. Bucshon.

I am going to follow up on something that Mr. Bucshon brought up, and I am focused on page two of your written testimony entitled, "Grants management." "Our audits of National Science Foundation's operations have found that NSF needs to continue to improve the grant management activities, including the oversight, of awardees financial accountability, programmatic performance, and compliance with applicable federal and NSF requirements. NSF has indicated that staffing constraints cause it to reduce the number of site visits to monitor high-risk awardees. In both fiscal year 2010 and fiscal year 2011, six planned site visits were cancelled. NSF had planned to conduct 30 site visits in fiscal year 2010, and 32 in fiscal year 2011. NSF also stated that its increased workload has impacted its ability to resolve audit recommendations in a timely fashion. For example, the number of audit reports with questioned costs that were not resolved within six months grew from zero in fiscal year 2003 to 26 in fiscal year 2010. Resolving questioned costs swiftly is an important component of grants management that funds can be returned to the Federal Government and also so that financial management deficiencies can be addressed before additional funds are placed at risk."

In reviewing these two items, one about site visits and the other is resolution of audit recommendations, the NSF seems to focus on the lack of adequate personnel. Who is it that makes the decision how many personnel the National Science Foundation will dedicate to site visits and audit recommendation resolutions?

Ms. LERNER. The BFA thinks that it does an analysis and makes recommendations to the director and the deputy director and my understanding is that the determination as to the amounts that will be available for staffing in the individual units is—those decisions are made by the director and the deputy director.

Chairman BROOKS. So if the staffing decisions are made by the director and the deputy director, what is your reaction to the NSF's response that they are not able to do the needed site revisits, that we have these delays, and we are not able to timely resolve audit recommendations?

Ms. LERNER. If we can't hire more people, then we have to look at how we work and find ways to work more efficiently and more effectively with the staff that we do have, and that may mean that some things that we have done in the past that are of a lesser priority we don't do, and we shift focus to things that are of higher

priority. We utilize the capacity of virtual site visits as opposed to boots on deck site visits. We utilize the information that is in our financial management systems to stay on top of how money is being spent more effectively. There are changes that can be made to processes when you can't add people that can increase the effectiveness of monitoring.

Chairman BROOKS. Well, if the NSF director and deputy director are not going to hire the additional personnel in order to do the required site visits or to timely resolve audit recommendations, do you have any explanation for why they have not been implementing the efficiencies that you just described?

Ms. LERNER. We have recommended that they do precisely that. They have a fairly robust process that they use for determining the staff that they would need, and that same process can be used for looking, for assessing systems and processes and identifying changes that can enable them to work more efficiently and effectively, and we—they haven't been utilizing that aspect of the process for that reason, and we have recommended that they do that moving forward.

Chairman BROOKS. Oh, I understand your recommendation. Do you have an explanation for why your recommendation has not been implemented?

Ms. LERNER. Well, we just made the recommendation in the past couple of months, so it does take some time for them to implement it. They were receptive to the recommendation, and my hope is that moving forward they will do precisely what we have asked them to do.

Chairman BROOKS. And in the alternative the director and deputy director could hire the additional personnel. That is another mechanism for ensuring timely site visits, adequate number of site visits, proper resolution of these audit recommendations. Have you received any explanation from the National Science Foundation as to why if they are going to assert that they need personnel, they don't reallocate some resources to the personnel that are needed?

Ms. LERNER. It has always been a desire at NSF to put as much money as one can out to do science and to keep administrative costs as low as possible, but I believe we are at a point where investments and administrative operations are necessary in order to ensure appropriate stewardship of NSF funds. We have to balance the programmatic responsibilities and the stewardship obligations that we have for federal funds.

Chairman BROOKS. Well, thank you, Ms. Lerner. Again, I apologize for having to leave, but I have House Armed Services Committee markup for the National Defense Authorization Act, and it would be good if I could listen to some of the debate before I vote on the amendments pertaining to that debate.

So at this time I am going to turn the chair and the gavel over to Mr. Bucshon from Indiana.

Mr. BUCSHON. [Presiding] Mr. Lipinski.

Mr. LIPINSKI. Thank you. I just wanted to briefly follow up on what the chairman has just been questioning you about. I know an issue—I just wanted to say—I don't have a question, I just wanted to say that I know that NSF's operations or administration funding has been flat and that Ms. Lerner said they want to keep the

money to, going to the research, but it is also the case that they have been told that is where the money is going to because that is a separate account so that could be an issue with NSF being able to do more work, not having the funding for the staffing to do that in operations.

I want to come back to, I think probably briefly, to the question that we were talking about before about contingency funds. It seems like there is still some confusion over this, and you said you had—were talking to NSF about this. I know NSF, what you had said in response to one of my questions before was about the known unknowns being, and hopefully I get this right, throwing the knowns and unknowns together, which way they go, the known unknowns were part of contingency funds, and I believe the NSF believes those are part of the base money. They are not contingency funds. It is the unknown unknowns only that are part of contingency.

But I don't think we are going to get anywhere on that right here. That is something that needs to be continued to be worked out and hopefully we will have the new language from OMB will, the comment period is going to be ending soon. Hopefully we will have that done and finalized.

But following on that, do you think that it is, might be the—I am not sure how to put this but might be a good idea to hold off on audits, any further audits until this is all settled in terms of what the rules are going to be, and certainly I encourage you to keep working with NSF on that end of it, but you also do have the rules OMB is laying out. It would seem to me that perhaps there shouldn't be any more audits.

I mean, are there more audits that are going to, new audits that are going to move forward even though there is still sort of these questions that we have about what contingency funds are, what they are going to be under the new rules? So I just wanted to see what you had to say about that.

Ms. LERNER. Certainly. We do have ongoing work focusing on contingencies, and I take your point that there is a process going on with the OMB, and one of the issues being considered is a change in the definition of contingency. But the time I don't have a crystal ball, and I have no way of knowing how long it will take for that particular issue to be resolved, if ever, through this process.

So from our perspective we still have an obligation to conduct our oversight work in accordance with the existing provisions of the circulars. But the work that we have ongoing right now, we have a project looking at a closed NSF awards. We wanted to pick an award where there were contingencies that was closed and examine NSF's management of contingencies over the lifecycle of that award. We have an ongoing audit in progress looking at that, and we are hoping to have a draft out of what we found there in June.

We are also looking to coordinate with other federal agencies that deal with contingencies and construction projects, including the Department of Energy and the Department of Housing and Urban Development to get around the table and talk about how all of us who have to deal with these types of contingencies and construction projects handle them so that we can be in a position to

provide insight to OMB as it moves forward in its process and to identify best practices in one or all of the offices that could position all of us to manage contingencies better. So we have that in progress as well.

And, we will also be looking through the course of some of our other broader audits that will have a component looking at contingency cost as well. It won't be the sole purpose of some of the audits, but it will be one issue that is examined.

Mr. LIPINSKI. All right. Thank you. I yield back.

Mr. BUCSHON. Mr. Palazzo from Mississippi.

Mr. PALAZZO. Thank you, Mr. Chairman.

Ms. Lerner, in your tenure as NSF Inspector General, what is the total amount of money that you recovered on behalf of the American taxpayer?

Ms. LERNER. I think it is noted in the written testimony from an investigative standpoint in the three years that I have been at NSF we have recovered \$21.6 million in fines, civil recoveries, and restitutions. From the audit perspective we have identified \$241.6 million in questioned costs and funds put to better use for a total amount of \$263.2 million.

Mr. PALAZZO. The next OIG report to Congress should be available within the next month. Will there be any major new issues, either investigative or audit wise, that will be of particular interest to this committee?

Ms. LERNER. I think you will see more about contingencies in there. You will see more small, SBIR Program cases. You will see a lot of what you have seen before. No major surprises and no magicians.

Mr. PALAZZO. Now, I agree with your testimony that awardees, mostly universities, must better monitor their sub-awardees—

Ms. LERNER. Uh-huh.

Mr. PALAZZO. —mostly principle investigators and their staff and students to ensure federal money is being used appropriately. Do you believe NSF is doing a good job with this oversight of this issue? What could they do better? And what are your recommendations for assuring that these awardees take their role as stewards of American taxpayer dollars seriously?

Ms. LERNER. I think NSF is challenged in this area. Again, because of some of the reasons that we have talked about previously, but in 2004, it set up a program called Award Against—let me make sure I get the acronym correct. AMBAP, Advanced Business Monitoring Processes that it uses to go to institutions and ensure that they have systems set up in order to properly manage NSF funds, and one of the issues that they look at is sub-recipient monitoring. You know, obviously I would like to see more virtual site visits because the more we are able to touch people, the more likely it is that they will understand and do what they need to do, and we can touch a lot more people virtually than we can by putting some people on a plane.

So I think that increasing our ability to do virtual site visits and getting to a point where we have a better accounting system and can stay on top of the funds as they are drawn down by institutions will make NSF's job easier there.

Mr. PALAZZO. How many staff members do you employ in your audit and oversight function?

Ms. LERNER. In the audit and oversight function?

Mr. PALAZZO. Or——

Ms. LERNER. In total

Mr. PALAZZO. —in your total, not NSF, but in your total sphere.

Ms. LERNER. The number varies because we have a lot of interns that come in and out in the summer, but I think it is approximately 76 people.

Mr. PALAZZO. Seventy-six and do you have contractors?

Ms. LERNER. We do have contractors as well.

Mr. PALAZZO. What do they do?

Ms. LERNER. We contract out mini audits both to DCAA and to private sector accounting firms.

Mr. PALAZZO. So you do use accounting firms——

Ms. LERNER. Yeah.

Mr. PALAZZO. —CPA firms——

Ms. LERNER. Yes.

Mr. PALAZZO. —to do that?

Ms. LERNER. We are hoping to transition more of that work in-house but it takes time to develop the staff who have been overseeing to actually do the work. So we are moving to do that.

Mr. PALAZZO. If you have an auditor that does substandard work, do you all have any kind of forms of being able to hold them accountable?

Ms. LERNER. You mean a staff person or an accounting firm that does substandard work?

Mr. PALAZZO. Well, I will give you——

Ms. LERNER. Yes to both.

Mr. PALAZZO. Okay. I will give you a little example. You mentioned Department of Housing and Urban Development. They have a great system through their React Financial System to where——

Ms. LERNER. Uh-huh.

Mr. PALAZZO. —you know, every housing authority has to have an independent public audit, and if—and they have—and it is pretty much designed through—everything is reported electronically.

Ms. LERNER. Uh-huh.

Mr. PALAZZO. But they have, I guess just like the IRS has flags, if they see something that is funny on your tax return, you might get a notice automatically, and you got to provide them with information. Well, the same thing goes for CPA firms. You can assume probably based on the historical data that not every awardee is going to be without some form of findings.

Ms. LERNER. Uh-huh.

Mr. PALAZZO. And if you have all the sudden, and I don't know since you are contracting, these people work directly for you instead of the awardees, it may be different, so I was just curious about that, and I think the better use of, I mean, as a CPA——

Ms. LERNER. Uh-huh.

Mr. PALAZZO. —and a former firm owner who has conducted audits, you know, you might want to have a good balance between those contractors who, you know, that is what they do, they do the training, but if you could hold them accountable somehow so that they are doing good audits for you, that would be great.

Ms. LERNER. Absolutely, and we do, we have staff who oversee all the contractors who work for us very carefully so that we can have comfort in the work that they do. We are very vigorous in our oversight there.

We are also vigorous in our oversight of the contractors that do A-133 or Single Audit Act work for institutions because some people do good work, and some people do subpar work, and we do our level best to monitor and find the bad apples and get them out of the system.

Mr. PALAZZO. Yes. I am definitely over my time. Thank you, Chairman, and when you mentioned yellow book audits and single audits, those—if you are a CPA firm offering those, you don't just do one or two a year. That becomes your niche because it is highly specified.

So thank you for your testimony. Thank you, Mr. Chairman.

Mr. BUCSHON. Thank you, Ms. Lerner. I agree that uniform guidance needs to be in place for NSF food purchases, but your testimony raises some other concerns, and I want to make sure we understand it correctly.

Ms. LERNER. Sure.

Mr. BUCSHON. You testified that in addition to the delicious snacks so to speak NSF provides the “merit review panelists and others attending meetings at NSF,” the panelists and meeting attendees also receive \$480 per meeting day, per person to cover compensation and honorarium in addition to the per diem. And this doesn't include the \$280 they receive on travel days.

How many merit review panelists and meeting attendees receive this “compensation” and “honorarium” per year, and under what authority, and at what cost to the taxpayer?

Ms. LERNER. I can tell you—there are some things I can tell, there are some things I can't tell you. I can tell you that in fiscal year 2010, there were approximately 15,000 individuals who served on panels for NSF. And the vast majority of those in all likelihood received the amounts that you asked about.

But I can't with precision tell you exactly, although that is an area that we are considering looking at more closely.

The authority for all of these expenditures would arise under a combination of NSF's Enabling Act, which authorizes it to conduct merit review, and the governance and appropriations statutes. I don't think from what I know of it right now that there is a legal question per se as to whether NSF can do this, but it should NSF be spending this money, especially when it comes to honoraria at this time, is a fair question to ask.

Mr. BUCSHON. I mean, do you believe personally that the additional compensation is a responsible way to spend the taxpayers' dollars?

Ms. LERNER. I think every dollar that NSF puts out right now needs to be looked at carefully as I said earlier, and just because we have done this in the past doesn't mean that we should continue to do it now. I know there are people that will say that we won't be able to attract people to do these panels if we don't offer them an honoraria, but I think also that there are a lot of intangible benefits that come from serving on these panels.

So, I think that before a decision is made to continue doing this, there ought to be a thorough study, and right now times being what they are, I would think long and hard before continuing to pay honoraria here.

Mr. BUCSHON. I yield to Mr. Lipinski.

Mr. LIPINSKI. I just want to come back on that, the question, and I know it is not really a question, but I just wanted to make clear and get—make sure I am understanding this correctly. The \$480 per day is a—is that a flat daily rate that includes travel, hotel, food, and expenses?

Ms. LERNER. It includes to my—lodging, per diem which would be food, local travel, and an honorarium. Travel beyond the local area when you are here is separate from that amount.

Mr. LIPINSKI. Okay. So that is—so 480 per day and then 280 on the travel days?

Ms. LERNER. Correct.

Mr. LIPINSKI. Okay. So, I mean, that is not all—an honorarium and certainly, you know, I know I have never served on one of these, but as someone who, as an academic and I knew people who did, I certainly think there is—has to be some incentive for people to come. You certainly don't want them paying money out of their own pocket, I wouldn't think, for doing this.

So, you know, I think we just need to be clear on what exactly—how much money that this is.

Thank you.

Ms. LERNER. I do agree that no one should have to be paying out of their own pocket for the privilege of serving on an NSF merit review panel, but it is probably time for us to look at those costs so that we can provide better information for NSF management to make a decision moving forward about how to handle those types of payments.

Mr. LIPINSKI. Thank you.

Ms. LERNER. Uh-huh.

Mr. BUCSHON. Thank you, Ms. Lerner, for your testimony today and the members for their questions.

Members of the subcommittee may have additional questions for the witness, and we will ask that you respond to those in writing. The record will remain open for two weeks for additional comments from members.

The witness is excused, and the hearing is adjourned.

[Whereupon, at 3:37 p.m., the Subcommittee was adjourned.]

## Appendix I

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ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

*Responses by Ms. Allison C. Lerner, Inspector General, National Science Foundation*

Questions for the Record  
The Honorable Daniel Lipinski

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY  
SUBCOMMITTEE ON RESEARCH AND SCIENCE EDUCATION

*Ensuring the Best Stewardship of American Taxpayer Dollars at the National Science Foundation*

Wednesday, May 9, 2012  
2:00 p.m.

QUESTIONS FOR MS. LERNER:

1. In your testimony and during the hearing there was some discussion of NSF grant management, including oversight of awardees' financial accountability, programmatic performance, and compliance with NSF and federal requirements. The NSF Agency Operations and Award Management Budget, a separate line-item in the NSF budget, has been flat since fiscal year (FY) 2009, even as the agency's research budget has grown overall and in particular received a significant bump in FY 2009-2010 from ARRA funding. In addition, Congress required a 10 percent cut to all agencies' travel budgets in FY 2012 and is proposing the same this year. The White House itself has just issued a memo directing agencies to cut 30 percent from their travel budgets. You described in your testimony and during the Q&A some steps NSF can take to make their grants management more efficient.
  - Why are in-person site visits by NSF program officers necessary for protecting the taxpayers against waste, fraud, and abuse?
  - What do you believe will be the impact of the additional 30 percent cut to travel on NSF's ability to carry out effective grants management and oversight?

- At what point can additional efficiencies and virtual site visits on NSF's part no longer make up for the inability of NSF program officers to conduct in-person site visits of high-risk awardees? How close are we to that point? Once crossed, what do you believe is the risk to the taxpayer?

NSF program officers conduct in-person site visits as part of the agency's monitoring program to help ensure that high-risk recipients, are meeting the programmatic objectives of the award. Site visits provide the agency with important information needed to oversee awards and to reduce the potential for waste, fraud, and abuse. NSF had planned to conduct 30 site visits in FY 2010 and 32 in FY 2011, but in both years had to cancel 6 visits.

My office has not conducted a review of the impact on grants management and oversight of the 30 percent reduction in travel, so I cannot speak to the precise impact of such a cut on the agency's ability to conduct oversight. Certainly, there are things NSF can do to enhance its oversight capability even in an austere fiscal environment. We have recommended that NSF use the staffing assessment process to identify ways to accomplish its mission and provide oversight in a more streamlined way within its current staffing limits. Upcoming improvements in the agency's financial systems should enhance NSF's ability to use data analytics to monitor recipients' draw-downs of award funds on a real-time basis—which should enable the agency to enhance its oversight of funds without leaving the building, but will also likely surface information that the agency might determine would warrant a site-visit.

In light of the foregoing, it is highly likely that there will continue to be situations where the agency will need to travel to high-risk recipients in order to best fulfill its oversight responsibilities. My staff has not conducted work to determine the point at which additional efficiencies and virtual site visits could no longer compensate for NSF's ability to make in-person site visits, so we are unable to say precisely how close NSF may be to that point. Nevertheless, my office has been concerned about the cuts in oversight visits that have already occurred, as even 30 or 32 site visits (the amount the agency had planned but not been able to conduct in FYs 2010 and 2011) is a tiny number when you consider that in any given year the agency has approximately 50,000 active awards at over 2000 institutions. We would be further

concerned about the risk to the taxpayer if the agency's ability to conduct site visits to high-risk recipients was further reduced.

2. With respect to contingencies for major research facilities, the Office of Management and Budget (OMB) is undertaking a major review and revision of its circulars that govern federal policies relating to grants and cooperative agreements. The reform outline released by OMB for comment in February would significantly change the cost principles for contingency funds for major research facilities. The exact language is as follows:

*This reform idea would involve clarifying that budgeting for contingency funds associated with a Federal award for the construction or upgrade of a large facility or instrument, or for IT systems, is an acceptable and necessary practice; that the method by which contingency funds are managed and monitored is at the discretion of the Federal funding agency. Contingency related amounts should not be included in recipient proposed budgets for specific awards or in the actual award documents; risk-adjusted total cost estimates should be based on verifiable supporting data consistent in compliance with Generally Accepted Accounting Principles (GAAP) and with standard project-management practices. Rebudgeting out of these funds would not be allowable.*

What is your position on the reform described in the OMB draft, including both the description of the contingency fund itself and the language that “the method by which contingency funds are managed and monitored is at the discretion of the Federal funding agency”?

If the new OMB guidance, once finalized, looks essentially like the language here, how would this affect your review of past, current, and/or future NSF major facility cost proposals?

Our office is leading a Council of Inspectors General (CIGIE) Grant Reform Working Group which has provided comments to OMB on the proposed revisions, including the one related to contingencies.

Federal budgeting for contingency funds is an acceptable and necessary practice, but needs to be adequately monitored and controlled. With respect to contingency-focused reform set forth in the OMB draft, the final rule would be stronger if it provided greater clarity as to what is meant by the term contingency. Therefore, the Working Group suggested that OMB harmonize the use of the term “contingency” in the grant context with the way it is used in the Federal Acquisition Regulation, which defines a contingency as a possible future event or condition arising from presently known or unknown causes, the outcome of which is indeterminable at the present time.

That section further breaks down contingencies into two types, as follows:

(1) Those that may arise from presently known and existing conditions, the effects of which are foreseeable within reasonable limits of accuracy; e.g., anticipated costs of rejects and defective work. Contingencies of this category are to be included in the estimates of future costs so as to provide the best estimate of performance cost. The dollar amount of contingencies in this category would be expected to be very small.

(2) Those which arise from presently known or unknown conditions, the effect of which cannot be measured so precisely as to provide equitable results to the contractor and to the Government; e.g., results of pending litigation. Contingencies of this category are to be excluded from cost estimates under the several items of cost, but should be disclosed separately (including the basis upon which the contingency is computed) to facilitate the negotiation of appropriate contractual coverage.

While contingencies in the first category could be included in recipients’ proposals as long as there is adequate support for the amount included, contingencies in the second category should not be included in such proposals. Amounts for contingencies in the second category, while appropriately considered in the federal awarding agency’s budget process, should only be

provided to recipients once the contingent event becomes a known and existing condition and the recipient has provided supporting cost data that is verifiable, i.e., current, accurate, and complete. Also, the working group suggested that OMB limit contingency funds to a certain percentage of the total award.

With respect to the language proposed by OMB for awards for the construction or upgrade of a large facility or instrument, or for IT systems, stating that “the method by which contingency funds are managed and monitored is at the discretion of the Federal funding agency,” we are not troubled by that language if the agency’s action are consistent with the rest of the proposed language, which provides that “[c]ontingency related amounts should not be included in recipient proposed budgets for specific awards or in the actual award documents; risk-adjusted total cost estimates should be based on verifiable supporting data consistent in compliance with Generally Accepted Accounting Principles (GAAP) and with standard project-management practices. Rebudgeting out of these funds would not be allowable.” If the OMB language is enacted without providing further clarification as to what is meant by a contingency, the divergences in opinion on this issue between my office and the agency would likely continue.

If the OMB-proposed language is enacted without providing further clarification as to what is meant by a contingency, the divergences in opinion on this issue between my office and the agency would likely continue.

3. During the hearing you explained that you are now beginning work to examine the use of contingencies in the construction of the Alaska Regional Research Vessel (ARRV) in addition to a closed award, EarthScope. Are there any other projects for which you are considering initiating new audits? Given that the concerns you have highlighted appear to be structural/policy issues not specific to any one project, do you have any reason to believe that you will reach different conclusions for the ARRV and any other new audits than you did for previous three?

We have started audits of three other projects involving contingencies. We selected these awardees for audit because they had large awards with a number of high-risk factors including

past cost overruns, significant unallowable costs on awards in which they were sub-awardees, and large amount of Recovery Act funds.

These audits have a broader focus than just contingency funds and will identify if awardees spent NSF funds, including contingency funds, in accordance with the award requirements and whether they were properly managing their NSF award portfolio. The more in-depth information we obtain from these audits may lead to different and/or expanded conclusions.

4. At a few points during the hearing, the discussion alluded to the difference between a contract and a cooperative agreement. Please explain why this is (or is not) an important distinction in the context of your audits of MREFC projects.

Two of the ways the government expends funds are through procurement contracts and cooperative agreements. Contracts are used for the procurement of property, goods and services when the principal purpose of the relationship is to *acquire* those goods and services for the *direct benefit* of the government. Procurement contracts are highly controlled by the Federal Acquisition Regulation (FAR). Cooperative agreements, on the other hand, are a form of assistance agreement. An assistance agreement is used when the principal purpose is to transfer a thing of value (such as funds) to carry out a public purpose of support or stimulation that is authorized by law. An agency chooses a cooperative agreement over a grant when it expects to have *substantial involvement* in the supported project. Cooperative agreements, like grants, are governed primarily by Office of Management and Budget (OMB) Circulars.

NSF often uses cooperative agreements when substantial agency involvement is anticipated, such as in awards for its MREFC projects. NSF's use of cooperative agreements, rather than contracts, for these projects is an important distinction in the context of our audits. For example, because recipients follow OMB circulars and not the FAR, recipients provide quarterly Federal Financial Reports which list total expenditures by *award* but not by individual cost elements. Further, a standard cooperative agreement has significantly less requirements that awardees must follow than a contract has. As a result, when NSF uses a cooperative agreement, there is less transparency into how award funds are being spent.

It is important to note, however, that NSF's use of cooperative agreements for its MREFC projects does not preclude NSF from including provisions in those agreements that would require more detailed cost accountability and transparency. For example, the use of cooperative agreements does not limit NSF's ability to have detailed cost reports submitted to the agency and have them audited to determine whether claimed costs are allowable. Finally, NSF could strengthen its processes for MREFC cooperative agreements by performing independent project proposal reviews prior to making the award to ensure that the proposed costs contain fair and reasonable estimates.

5. Have you observed any change in the number of research fraud cases brought to your attention since the *America COMPETES Act of 2007* Responsible Conduct of Research provision was implemented by NSF? Are you satisfied with NSF's new policy? I recognize that you have just initiated a review of how universities are implementing NSF's new policy, but do you have any preliminary sense of how well the implementation is going at universities?

The number of research misconduct cases that our office investigates has increased since 2007. Some of the increase is attributed to substantive allegations our office receives. Some of the increase, however, can be directly linked to proactive reviews of selected proposals using plagiarism-detection software. In addition to increased plagiarism allegations, we have seen a recent small increase in data fabrication cases as well.

Overall, NSF's implementation of its new RCR policy, which applies to all grant recipients beginning in 2010, appears to meet the minimal requirements of the America COMPETES legislation. The policy provides basic guidance to universities regarding RCR training and affords universities the flexibility to develop programs to meet their specific needs. However, we are concerned by the fact that NSF's policy requires RCR training only for those post docs and students who receive direct financial support to conduct research on NSF grants. Many students and post docs who actively participate in NSF funded projects, therefore, are not required to receive RCR training because they receive no direct support or stipend from NSF funds. If universities routinely only train the students that are directly funded by NSF, then the

impact of the training will be far less than it would be if all students working on NSF-funded projects were trained.

Our oversight of university RCR programs is truly in its infant stages, with one formal review completed. However, we have informally seen five to six programs, and the results are diverse. Some institutions have taken a very aggressive approach to RCR training, while others have taken a minimalist approach by training only the few students mandated by the policy.

6. In one of your replies to a question during the hearing, you stated that there were over 300 IPAs at NSF. In the agency's FY 2013 budget request, NSF provides an estimate of 183 IPAs, equal to the number estimated for the current fiscal year and only 8 more than the actual number of IPAs in FY 2011 (see Table 4, Model Organization Chapter, page 6). Was this just a misstatement on your part or did you calculate your number from a source different from that used by the agency? If the latter, please explain the source of your estimate and why it differs from the figure provided in the NSF budget request.

In response to a question at the hearing, I incorrectly stated that NSF had 314 IPAs; in fact, 314 was the total number of participants in the Independent Research/Development program, not the number of IPAs at NSF.