

# **Audit of NSF's Oversight of Grantee Institutions' Conflicts of Interest**

**National Science Foundation  
Office of Inspector General**

**September 30, 2011  
OIG 11-2-009**



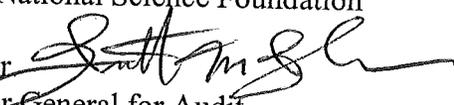


National Science Foundation • 4201 Wilson Boulevard • Arlington, Virginia 22230  
Office of the Inspector General

**MEMORANDUM**

**DATE:** September 30, 2011

**TO:** Dr. Cora B. Marrett  
Deputy Director, National Science Foundation

**FROM:** Dr. Brett M. Baker   
Assistant Inspector General for Audit

**SUBJECT:** *Audit of National Science Foundation's Oversight of Grantee Institutions' Conflicts of Interest, Report No. 11-02-009*

Attached please find the final report of our audit of NSF's conflicts of interest program. The report contains information on the number of unmanageable conflicts of interest that grantee institutions reported to NSF, institutions' compliance with NSF's conflicts of interest policy, and a finding on the need for NSF to strengthen its policy. We have included NSF's response as an appendix to the final report.

In accordance with Office of Management and Budget Circular A-50, *Audit Followup*, please provide a written corrective action plan within 60 days to address the report recommendations. This corrective action plan should detail specific actions and milestone dates.

We appreciate the courtesies and assistance provided by so many NSF staff during the audit. If you have any questions, please contact Marie Maguire, Senior Audit Manager, at (703) 292-5009.

Attachment

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## **Introduction**

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### **Mission of the National Science Foundation**

The National Science Foundation (NSF) is an independent Federal agency whose mission is “to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense.” To support this mission, NSF funds research and education across all fields of science and engineering primarily through grants and cooperative agreements with awards going to more than 2,000 colleges, universities, and other institutions throughout the U.S. NSF’s impact on scientific research in the U.S. is significant, accounting for about 20 percent of all Federal support to academic institutions for basic research.

### **Conflicts of Interest**

NSF encourages academic researchers’ and educators’ involvement with industry and private entrepreneurial ventures, but the agency also recognizes that such interactions carry with them an increased risk of conflicts of interest (conflicts). According to NSF’s Conflicts of Interest Policy (Policy) <sup>1</sup>, a conflict exists when the reviewer(s)<sup>2</sup> reasonably determines that a significant financial interest could directly and significantly affect the design, conduct, or reporting of NSF-funded research or educational activities. The importance of properly overseeing and managing these conflicts cannot be understated as a poorly managed or hidden conflict creates the perception of misconduct or other improper personal motives, or that public resources could be misused for private benefit. NSF has a stewardship responsibility to ensure that conflicts are properly identified and effectively and transparently managed. When a conflict has not been properly managed, it undermines public trust and could undermine an agency’s integrity.

NSF’s Policy requires grantee institutions that employ more than 50 persons to maintain a written and enforced policy on conflicts. The Policy also requires that institutions manage, reduce, or eliminate all conflicts for each award prior to the expenditure of award funds. Institutions are only required to notify NSF when they have determined that they cannot satisfactorily manage a conflict. Institutions are also responsible for ensuring that their NSF funded subawardees, contractors, or collaborators have policies in place or otherwise meet the standards of the NSF Policy.

Concerned about NSF’s oversight of grantee financial conflicts of interest, in March 2009, the Ranking Member of the Senate Committee on Finance requested that the NSF Office of Inspector General (OIG) conduct an audit of conflicts involving NSF’s grants. At a minimum, he requested that the OIG determine the number and nature of financial conflicts reported by institutions to NSF, and the extent to which NSF oversees

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<sup>1</sup> *The National Science Foundation, Proposal and Award Policies and Procedures Guide, Part II - Award & Administration Guidelines*, October 2009, NSF 10-1.

<sup>2</sup> NSF’s Policy defines “the reviewer” as the individual at the grantee institution responsible for reviewing the financial disclosures, determining whether a conflict of interest exists and what conditions or restrictions should be imposed.

and manages financial conflicts of interest of institutions, primary investigators, and other senior investigators.

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## **NSF Did Not Receive or Manage Any Reports of Financial Conflicts of Interest from Its Grantee Institutions from April 2007 Through March 2010**

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According to the Policy, institutions are required to report to NSF only those conflicts that the grantee institution cannot satisfactorily manage. We determined that NSF did not receive any reported unmanageable conflicts from its grantee institutions within the three-year scope of our audit, April 1, 2007 through March 31, 2010. Specifically, NSF requires institutions to report any conflicts that it is unable to satisfactorily manage to NSF via its FastLane reporting system. Upon review, we did not identify any reports of unmanageable conflicts during this period. We corroborated this with NSF officials who confirmed that they had not received any reported unmanageable conflicts from an institution for this timeframe. In further answering the congressional request, we found that NSF's Policy does not explicitly require the agency to oversee or manage grantee institutions' conflicts. Specifically, the requirement to report an unmanageable conflict through FastLane is only a reporting standard, and does not demand action on the part of NSF.

While our initial request found no reports of unmanageable conflicts within the three year scope period of our initial inquiry, NSF's Office of General Counsel (OGC) informed us of two reported unmanageable conflicts that it received after March 31, 2010. OGC received notification of the first unmanageable conflict in June 2010 and the second one in November 2010. An OGC official conducted a review of both conflicts in November 2010. She informed us that, although not required by the Policy, she proactively contacted both institutions regarding the two reported unmanageable conflicts. For the first reported conflict, the OGC official reviewed the award files and confirmed that the institution had submitted an award amendment requesting the cancellation of the grant. For the second reported conflict, the OGC official obtained and reviewed the institution's conflicts policy and inquired whether university officials had made a final determination on the issue. Subsequent communications indicated the university officials determined that the unmanageable conflict was an acceptable, but unavoidable conflict, as no other vendor existed for the product. The university officials communicated that they will continue to monitor the purchases to determine that they are reasonable.

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## Grantee Conflicts Programs Reviewed Were Generally Consistent with NSF's Policy

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We expanded our audit work based on the lack of reported unmanageable conflicts for our three-year scope period and the fact that NSF's Policy does not require NSF to oversee or manage conflicts. Specifically, our objective, on a sample basis, was to gain an understanding of grantee institutions' policies and procedures and determine their compliance with NSF's Policy. Consistent with the Paperwork Reduction Act, we limited our selection to nine<sup>3</sup> NSF grantee institutions with open NSF awards during the same three year period, April 1, 2007 through March 31, 2010<sup>4</sup>. NSF's Policy directs the institutions to meet certain standards in administering their conflicts programs. To determine compliance with the Policy, we identified 13 standards that must be included in each institution's conflicts policy and another 4 procedural standards that the institutions must follow in implementing their conflicts program. We determined compliance with these Policy standards by administering a survey to each of the nine institutions comprised of questions designed to address the institution's conflicts policies and procedures specific to NSF's standards. We also obtained copies of applicable conflicts policies and procedures from the institutions. After this document review, we conducted follow-on discussions with institution officials to corroborate our understanding of their conflicts programs and procedures.

Our review of the conflicts programs at the nine institutions found that all nine programs were generally consistent with NSF's Policy. We identified a total of 17 policy and procedural standards in the Policy and found that all 9 grantee conflicts programs reviewed were properly implementing 11 of these standards. Some of the six omitted standards are technical in nature. However, others, such as the exclusion of enforcement mechanisms and sanctions, and arrangements to keep NSF OGC informed of unmanageable conflicts, raise concern as to the adequacy of the institutions' policies to enforce NSF's standards and to ensure conflicts are properly managed, reduced, or eliminated.

Table 1 on the following page outlines the 13 standards that institutions must include in their conflicts of interest policies. We found 9 of these standards were present in all of the institutions' policies reviewed and are indicated with an ✓ below. Conversely, the four standards determined to be missing from the policies are shown with an ✘. The number in parenthesis represents the number of institutions that did not have that specific standard included in their conflicts policy. The Policy citations listed below are from *The National Science Foundation, Proposal and Award Policies and Procedures Guide, Part II - Award & Administration Guidelines*, Chapter IV: Grantee Standards, February 2009.

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<sup>3</sup> See Appendix B: Objectives, Scope, and Methodology on page 11 for the methodology used in selecting the nine institutions.

<sup>4</sup> In the interest of time, we did not undertake the lengthy Office of Management and Budget approval process which would have been necessary to survey more than nine institutions.

<b>Table 1: NSF Standards for Grantee Institution's Conflict of Interest Policy</b>			
<b>Source</b>	<b>Total standards: 13</b>		<b>Compliance Results at 9 Institutions</b>
AAG Chapter IV., section A.1	1	The policy is written.	✓
	2	The policy is enforced.	✓
AAG Chapter IV., section A.2.	3	The policy should require that each investigator disclose to a responsible representative of the institution all significant financial interests of the investigator (i) that would reasonably appear to be affected by the research or educational activities funded or proposed for funding by NSF; or (ii) in entities whose financial interest would reasonably appear to be affected by such activities.	✓
	4	The policy should require that each investigator disclose to a responsible representative of the institution all significant financial interests of the investigator's spouse (i) that would reasonably appear to be affected by the research or educational activities funded or proposed for funding by NSF; or (ii) in entities whose financial interest would reasonably appear to be affected by such activities.	✓
	5	The policy should require that each investigator disclose to a responsible representative of the institution all significant financial interests of the investigator's dependent children (i) that would reasonably appear to be affected by the research or educational activities funded or proposed for funding by NSF; or (ii) in entities whose financial interest would reasonably appear to be affected by such activities.	✘ (1)
AAG Chapter IV., section A.3.	6	The policy must ensure that investigator has provided all required financial disclosures at the time that a proposal is submitted to NSF.	✓
	7	The policy must require that financial disclosures are updated during the period of the award, either on an annual basis, or as new reportable significant financial interests are obtained.	✓
AAG Chapter IV., section A.4	8	The policy must designate one or more persons to review financial disclosures.	✓
	9	The policy must designate one or more persons to determine whether a conflict of interest exists.	✓
	10	The policy must designate one or more persons to determine what conditions or restrictions, if any, should be imposed to manage, reduce or eliminate such conflict of interest.	✓
AAG Chapter IV., section A.5	11	The policy includes adequate enforcement mechanisms.	✘ (1)
	12	The policy provides for sanctions where appropriate.	✘ (1)
AAG Chapter IV., section A.6	13	The policy includes arrangements to keep NSF-OGC appropriately informed if the institution finds it is unable to satisfactorily manage a conflict of interest.	✘ (4)

Similarly, the table below outlines the 4 procedural standards that institutions must follow when implementing their conflicts program. The compliance results are shown with an ✓ if all 9 institutions indicated that they had these procedures in place. The procedural standards that were not in place at all 9 institutions are shown with an ✘.

The number in parenthesis represents the number of institutions that did not have that specific standard included in their conflicts policy. The Policy citations listed below are from *The National Science Foundation, Proposal and Award Policies and Procedures Guide, Part II - Award & Administration Guidelines*, February 2009.

<b>Table 2: NSF Standards for Grantee Institution's Conflict of Interest Procedures</b>			
<b>Source</b>	<b>Total Standards: 4</b>		<b>Compliance Results at 9 Institutions</b>
AAG Chapter IV., section A.1. This standard was in effect after January 4, 2010	1	All conflicts of interest for each award are managed, reduced or eliminated prior to the expenditure of the award funds.	✘ (1)
	2	The institution must take reasonable steps to ensure that its subawardees, contractors or collaborators have their own policies in place that meet NSF's COI policy standards or that investigators working at these entities follow the policies of the primary institution.	✓
GPM Chapter V, section 510 f., Footnote 11, and AAG Chapter IV. Section A.6, Footnote.	3	Grantee notifications of conflict of interest that cannot be managed, reduced or eliminated must be submitted electronically via the NSF FastLane System.	✘ (2)
GPM Chapter V, section 510 g., and AAG Chapter IV., section A.7	4	The institution maintains records of all financial disclosures and of all actions taken to resolve conflicts of interest for at least 3 years beyond date of grant termination/completion, or until the resolution of any NSF action involving those records, whichever is longer.	✓

Officials from the surveyed institutions cited various reasons for the omission of the NSF required elements from their conflicts policies and procedures. At least one of these institutions stated that clarification on its conflicts standards is provided through other institution documents, which its conflicts policy does not directly reference. One institution claimed lack of familiarity with the process of reporting unmanageable conflicts because it has not had a situation in which it could not manage, reduce or eliminate the conflict. As a result of this audit, officials from two institutions that were missing a Policy or procedure standard recognized that their conflicts programs could be enhanced. Institution officials indicated that actions will be taken to revise and incorporate the missing NSF Policy standards into their conflicts programs.

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

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

**NSF's Policy does not require it to take any action on reported unmanageable conflicts.** While NSF's Policy obligates institutions to keep NSF informed of unmanageable conflicts, it does not require NSF to take any action with respect to such conflicts. NSF informed us that it does not have authority to provide advice or question decision-making when an institution determines that a conflict is unmanageable. We inquired about the intent behind institutions reporting unmanageable conflicts if NSF will take no action. NSF officials stated that the reporting standard was originally included in the Policy to see how the process would work and to understand the number of conflicts that were unmanageable. While we understand NSF's desire to enable institutions to create their own system(s) for managing conflicts, there is a risk associated when the institutions cannot manage a conflict and NSF asserts that it cannot provide guidance or opinion to address the conflict. NSF has a stewardship responsibility over Federal award funds. As such, it should gain an understanding of the circumstances surrounding the unmanageable conflict and assist the institution with developing a method to manage the conflict or give consideration to terminating the related award(s).

**NSF is not required to provide monitoring and oversight of the institutions' implementation of their conflicts programs.** NSF's Policy places the responsibility of managing conflicts of interests solely with the grantee institutions. The agency utilizes a certification process at the time of proposal, whereupon each applicant institution certifies that the institution has implemented a written and enforced conflicts policy that is consistent with the provisions of NSF's Policy. The inclusion of this language implies a responsibility for NSF to monitor and oversee the institutions to evaluate whether an institution's policy does, in fact, meet the content standards. Currently, neither NSF's Policy Office nor OGC conducts reviews of an institution's conflicts policy.

OGC informed us that the primary responsibility for the effective management of an institution's individually tailored investigator financial disclosure policy rests with the institution. Based on our limited review of nine institutions' policies, we found deficiencies which suggest that other institutions may not be fully implementing NSF's standards. However, NSF's Policy does not require it to provide monitoring and oversight of the institutions' conflicts programs or training and outreach on NSF Policy standards. As a result, NSF cannot ensure that these institutions are properly managing conflicts that could affect the design, conduct, or reporting of NSF-funded

research or educational activities. The implementation of a risk-based strategy to monitor and oversee institutions' policies and procedures including outreach and possible training will help ensure the institutions' conflicts programs comply with NSF's Policy.

**NSF's Policy does not require NSF to be notified of situations when an institution has decided to allow research to proceed 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 should be informed of all such instances so it can assess the situation and ensure that the decision is appropriate.

Specifically, the Policy states that:

“[i]f the reviewer(s) determines that imposing conditions or restrictions would be either ineffective or inequitable, and that the potential negative impacts that may arise from a significant financial interest are outweighed by interests of scientific progress, technology transfer, or the public health and welfare, then the reviewer(s) may allow the research to go forward without imposing such conditions or restrictions.”

NSF officials stated that it is the institution's responsibility to review the conflicts and determine those situations where the research may continue without imposing conditions or restrictions. NSF's Policy does not require the institutions to notify NSF when this occurs or provide information regarding the unmanageable conflict. Therefore, NSF is unaware of the frequency and under what circumstances research was allowed to continue. However, 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 the institutions' actions. Further, in a discussion with NSF officials, the OIG auditors suggested implementing a tracking mechanism for these types of situations. NSF officials responded that it was an interesting concept and they could consider it. 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 to maintain the objectivity and integrity of the award. It is critical that NSF, as the funding agency, be involved when a grantee allows NSF-funded research or educational activities to continue when unmitigated conflicts exist.

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## **Conclusion and Recommendations**

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Because NSF's Policy does not require NSF to oversee or manage its grantee institutions' conflicts programs, NSF cannot be not assured that the institutions are properly managing, reducing, or eliminating conflicts or that unmanageable conflicts are being reported to NSF.

We recommend that NSF have a procedure in place to ensure that conflicts at its grantee institutions are managed, reduced, or eliminated. This should include developing:

1. 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;
2. a procedure to oversee unmanageable conflicts. This could include the development of a mechanism for tracking reported unmanageable conflicts and a requirement for NSF to ensure that the institution addresses the conflict; and
3. a procedure requiring a) the institutions to notify NSF of those situations when an institution is considering allowing research to proceed without imposing conditions or restrictions when a conflict exists and b) NSF to assess the volume of related conflicts to determine if further action is needed by NSF.

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## **Summary of Agency Response and OIG Comments**

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In its written response to the draft of this report, NSF concurred that additional oversight, while not required by the current COI Policy, might be beneficial. Accordingly, NSF will take steps to determine how best to ensure institutions have COI policies and procedures in place that are consistent with NSF's Policy. NSF will also develop an appropriate plan of action to ensure that sufficient oversight of unmanageable conflicts takes place and that it is informed of instances where institutions may allow research to continue without the imposition of conditions or restrictions.

We consider management's response and planned actions to be responsive to our recommendations. We will work with NSF officials on their proposed implementation actions detailed in a Corrective Action Plan.

We have included the full text of NSF's response in Appendix A.

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## Appendix A: Agency's Response

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NATIONAL SCIENCE FOUNDATION  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230



OFFICE OF THE  
DEPUTY DIRECTOR

September 29, 2011

### MEMORANDUM

TO: Ms. Allison C. Lerner  
Inspector General

FROM: Deputy Director

SUBJECT: Response to OIG "Audit of NSF's Oversight of Grantee Institutions'  
Conflicts of Interest"

Please find attached the Foundation's response to the OIG "Audit of NSF's Oversight of Grantee Institutions' Conflicts of Interest" report. This response was developed in close consultation with the Offices of the General Counsel (OGC) and Budget, Finance and Award Management (BFA). Please let me know if you have any questions.

*Cora B. Marrett*  
Cora B. Marrett

### Attachment

cc: Subra Suresh  
Larry Rudolph  
Karen Santoro  
Robin Clay  
Martha Rubenstein  
Joanna Rom  
Mary Santonastasso  
Jean Feldman  
Dedric Carter  
Clifford Gabriel  
Brett Baker  
Lisa Hansen  
Marie Maguire

NSF's Investigator Financial Disclosure conflict of interest (COI) policy for awardee institutions has been in effect since 1994. This policy places the responsibility of identifying and managing investigator conflicts with each institution. At the time of proposal submission, the Authorized Organizational Representative of each institution must certify that the institution has implemented a written and enforced conflict of interest policy that is consistent with NSF's policy and the minimum requirements for investigator financial disclosure.

The OIG Report "*Audit of NSF's Oversight of Grantee Institutions Conflicts of Interest*" was based on a review of NSF's COI Policy and on how 9 NSF awardee institutions are implementing it. The audit found the 9 institutions had COI policies in place that were generally consistent with NSF's policy. In addition, the OIG concluded that the NSF Investigator Financial Disclosure policy does not provide assurance of adequate oversight by the agency of possible conflicts of interest. This conclusion led the OIG to recommend strengthening NSF's COI oversight. NSF agrees that additional oversight, while not required by the current COI Policy, might be beneficial. Accordingly, NSF will seek additional data beyond the 9 institutions to determine how best to ensure institutions have conflict of interest policies and procedures in place that are consistent with NSF's policy. NSF will also formulate an appropriate plan of action, subject to resource limitations at both NSF and our partner institutions, to ensure that sufficient oversight of unmanageable conflicts takes place and to be informed of instances where institutions determine that the imposition of conditions or restrictions is outweighed by interests of scientific progress, technology transfer, or the public health and welfare.

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## Appendix B: Objectives, Scope, and Methodology

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Pursuant to a request by the Ranking Member of the Senate Committee on Finance, the objectives of our audit were, at a minimum, to determine the number and nature of financial conflicts of interest (conflict) reported by grantee institutions to NSF, and the extent to which NSF oversees and manages conflicts of grantee institutions, primary investigators, and other senior investigators. We also, on a sample basis, gained an understanding of grantee institutions' (institution) compliance with NSF's conflicts of interest policy (Policy).

We conducted this performance audit from April 2010 to September 2011, at NSF in Arlington, Virginia. To answer our objectives, we obtained information on unmanageable conflicts reported to NSF's Office of the General Counsel (OGC) and through NSF's FastLane reporting system for the three year scope period of April 1, 2007 through March 31, 2010. We gained an understanding of NSF's oversight and management responsibilities regarding reported unmanageable conflicts.

We also administered a survey to nine NSF grantee institutions with open NSF awards during the same three year period to gain an understanding of the management of their conflict program in accordance with NSF's Policy. We selected the 9 institutions, from the approximately 3,400 institutions with open NSF awards, based on conflicts issues identified in prior Federal audits and reviews, Single Audit reports<sup>5</sup>, input from NSF OIG Investigators and NSF OGC officials, representation of public and private institutions, and geographic location. Based on the sample size and methodology, we cannot and do not project the results from our testing of the nine institutions to the entire population of institutions with open awards for the three year audit scope period.

To meet our objectives, we:

- Obtained and reviewed relevant laws, regulations, policies, and procedures,
- Obtained and reviewed prior Federal audits and reviews,
- Communicated with the NSF OIG Office of Investigations,
- Consulted with NSF OIG Legal Counsel,
- Interviewed NSF officials,
- Surveyed nine institutions on their conflicts program,
- Obtained and reviewed relevant conflicts policies and procedures for the nine institutions surveyed, and
- Communicated with institution officials.

We reviewed the nine institutions' conflicts policies and procedures for compliance with provisions of *The National Science Foundation, Proposal and Award Policies and Procedures Guide, Part II - Award & Administration Guidelines*, Chapter IV Grantee Standards. We found that all nine grantee institutions surveyed primarily implemented

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<sup>5</sup> PL 104-156, "Single Audit Act Amendments of 1996"

appropriate conflicts programs in accordance with NSF's Policy. While exceptions were identified, none were considered significant to the overall implementation of the institutions' conflicts programs.

We also obtained an understanding of the management controls over NSF's process for implementing its conflicts program through interviews with NSF officials and staff. We found that NSF is not responsible for overseeing or managing institution conflicts. We did not identify any instances of fraud, illegal acts, violations, or abuse.

During the course of this audit, the auditors relied on information and data received from NSF in electronic format that had been entered into a computer system or that resulted from computer processing. We tested the reliability of NSF's computer-processed data by corroborating the results with NSF officials independent of the computer system.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We held an exit conference with NSF's Office of the General Counsel on September 6, 2011.