MEMORANDUM

DATE:	March 16, 2012
TO:	Martha Rubenstein Director / Chief Financial Officer, Office of Budget, Finance, and Award Management National Science Foundation
FROM:	Dr. Brett M. Baker /s/ Assistant Inspector General for Audit
SUBJECT:	*Audit of NSF's Processes for Assessing its Financial and Administrative Staffing Needs,* Report No. 12–02-007

Attached please find the final report of our audit of processes to assess NSF Office of Budget, Finance, and Award Management staffing needs. The report contains one finding on the need for BFA to integrate its identification and evaluation of opportunities to streamline its operations into its annual workforce planning process. 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 recommendation. 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

cc:	Cora Marrett	Judith Sunley
	Clifford Gabriel	Allison Lerner
	Arthur K. Reilly	Marie Maguire
	Michael Van Woert	Kelly Stefanko
	Joanna Rom	Elizabeth Goebels
	Eugene Hubbard	Karen Scott

Audit of NSF's Processes for Assessing its Financial and Administrative Staffing Needs

National Science Foundation

Office of Inspector General

March 16, 2012

OIG 12-2-007

Introduction

The National Science Foundation (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. NSF funds approximately 10,000 new awards each year and as of June 2010, it had a portfolio of over 41,000 awards totaling $25.4 billion. These awards are mostly grants but also include cooperative agreements and contracts.

NSF's Office of Budget, Finance, and Award Management (BFA) has the responsibility for issuing and financially monitoring and overseeing the thousands of awards NSF makes each year. Specifically, BFA is responsible for assessing awardees' ability to perform and for monitoring how awardees manage award funds.

For Fiscal Year (FY) 2012 and FY 2011, NSF received appropriations of $7.0 billion and $6.9 billion respectively. In FY 2009, NSF received an additional $3 billion under the American Recovery and Reinvestment Act of 2009 (ARRA). However, ARRA did not provide any funding for staffing to make, oversee, and manage these additional awards. Even prior to the Recovery Act, NSF had far fewer full time equivalents (FTEs) than staffing assessments indicated were needed, with ARRA creating additional workload. We conducted this audit due to concerns about BFA's ability to properly make and oversee awards, particularly in light of its increased workload.

Audit Results

We initially focused our audit on determining whether BFA had a sufficient process in place to assess its staffing needs for managing and overseeing the full lifecycle of its grants and cooperative agreements. While we identified a few areas in which improvements could be made in the staffing assessment processes NSF and BFA used, it became clear that even if the processes were perfect, with the current fiscal environment, gaps between the number of staff needed and the number funded would continue. Thus, we shifted our focus to examining the need for NSF to use those processes to seek alternative methods to accomplish its mission and provide oversight in a more streamlined way within its current staffing limits. OMB Circular A-11 and OPM's Human Capital Assessment and Accountability Framework (HCAAF) suggest that workforce planning processes can also be used in determining how to reengineer processes.

We examined the following staffing assessments NSF has used as a basis to support management decisions on staffing levels:

1. ***Weighted Workload Analysis –*** NSF's Human Resource Management Division (HRM) developed this model to measure and aggregate typical program office workload. BFA staffing levels are then determined by applying a ratio of office

staff to program staff, using an average of several years' information. This process provides concrete data to support NSF's agency-wide staffing requests to Congress.

2. ***Staffing Planning Process*** – HRM annually asks each Directorate and Office to respond to various funding scenarios. This allows NSF to consider how it would accomplish its work with less than the ideal number of staff.

3. ***Full Time Equivalent Requests*** – Each Directorate and Office provides the Office of the Director with a request and the rationale for FTE needed. The Office of the Director considers these requests in allocating FTEs once NSF receives funding from Congress.

We found that NSF has attempted to base its staffing requests on concrete data and has conducted staffing assessments to make decisions about how many staff it needed. ██ ██ ██

We found that BFA did not use the staffing assessments to change its processes to create more cost effective ways to manage its workload or to prioritize work that adds value and eliminate work that did not advance its mission. As NSF staff stated, studying how to reengineer BFA's process takes time and resources, which are already scarce. However, because significant increases of FTEs are unlikely, NSF needs to invest time and resources to determine alternative ways to accomplish its mission and provide oversight in a more streamlined way within its current FTE limits.

Per the HCAAF, NSF should use workforce planning to make decisions related to restructuring, redeployment, and reorganization. The HCAAF indicates that agencies can use workforce planning to determine how to streamline functions and consolidate organizational elements. In the current environment of increased concern about both accountability of Federal funds and budget constraints, BFA needs to find new and cost-effective ways to ensure that NSF recipients, especially high-risk ones, have the financial capability to properly manage federal funds.

As a result of not having sufficient staffing, BFA has had to reduce the number of site visits to monitor high-risk awardees. BFA cancelled six planned site visits in both FY 2010 and FY 2011. In addition, BFA stated that its increased workload has impacted its ability to resolve audit recommendations in a timely fashion. 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. It is important for questioned costs to be resolved swiftly so funds can be returned to the Federal government and awardees' financial management deficiencies can be addressed before additional funds are placed at risk. Furthermore, a growing number of NSF staff perceives that their workload is unreasonable. A 2010 workload study conducted on one BFA division found, in discussions with staff and

leadership, substantial potential for early retirements, job burnout, and turnover, which was in part due to dissatisfaction with workload.

Recommendation

We recommend BFA integrate its identification and evaluation of opportunities to streamline its operations into its annual workforce planning process to ensure sound financial management and oversight of awardees based on staffing levels. In looking at ways to streamline work, we suggest that BFA management consider the use of data analytics to identify higher risk issues and permit limited human capital resources to focus on those higher risk issues.

Summary of Agency Response and OIG Comments

In its response, NSF concurred with the OIG's recommendation and noted that optimizing the deployment of NSF's human resources is an ongoing challenge. Accordingly, BFA stated that it would address the use of streamlining in its annual workforce planning process.

We consider management's comments and planned actions to be responsive to our recommendation. We look forward to receiving the Corrective Action Plan and working with NSF officials to confirm its implementation.

We have included NSF's response to this report in its entirety as Appendix A.

Appendix A: Agency's Response

NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

March 8, 2012

OFFICE OF THE
DEPUTY DIRECTOR

MEMORANDUM

TO: Ms. Allison C. Lerner
              Inspector General

FROM: Dr. Cora B. Marrett   *CBMarrett*
              Deputy Director

SUBJECT: NSF Response to the OIG Draft for Formal Comment on the Audit of NSF's
              Processes for Assessing its Financial and Administrative Staffing Needs

Below is the Foundation's response to the OIG Draft for Formal Comment on the Audit of NSF's
Processes for Assessing its Financial and Administrative Staffing Needs. This response was
developed in close consultation OIRM and BFA. Please let me know if you have any questions.

NSF Response:

Optimizing the deployment of NSF's constrained human resources in an era of tight
staffing budgets, additional accountability requirements, increasing programmatic
complexity and unprecedented transparency is an ongoing challenge. We appreciate OIG
taking the time to thoroughly review this issue in the context of BFA's unique role and
growing responsibilities. NSF agrees with OIG's recommendation and believes it is
consistent with practices we are already following. BFA anticipates explicitly addressing
the responsible use of streamlining, including risk-based methodologies, in our annual
workforce planning process that is undertaken in concert with HRM.

cc: Subra Suresh
          Marty Rubenstein
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          Judy Sunley
          Clifford Gabriel
          Brett Baker
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          Elizabeth Goebels
          Marie Maguire
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Appendix B: Objective, Scope and Methodology

The objective of the audit was to determine whether NSF has sufficient processes in place to assess its staffing needs for managing and overseeing the entire lifecycle of its awards to ensure that program outcomes are achieved. Because financial and administrative services are critical to this function, our audit focused on the NSF Office of Budget, Finance and Award Management (BFA), which has primary responsibility for providing these services. We conducted the performance audit from March 2011 to February 2012 at NSF headquarters in Arlington, Virginia.

To complete our objective, we reviewed documents detailing NSF's staffing planning processes and human capital management plan and progress. We also interviewed staff in the NSF Office of Information and Resource Management, Office of the Director, and BFA to gain an understanding of their procedures and roles with respect to staffing assessments.

We reviewed NSF's compliance with applicable provisions of pertinent laws and guidance including 5 CFR 250.203, which requires agencies to conduct a workforce analysis. We did not identify any instance of noncompliance with these laws and regulations.

Through interviewing NSF staff and reviewing documentation, we also obtained an understanding of the management controls over staffing planning processes. We did not identify any internal control deficiencies with those process or any instances of fraud, illegal acts, violations, or abuse.

During the course of this audit, we 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 where feasible and also corroborated the reasonableness of the data with NSF officials. We concluded that the computer-processed data were sufficiently reliable.

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

We held an exit conference with NSF management on February 29, 2012.