

National Science Foundation
Business and Operations Advisory Committee
Executive Summary for Fall 2014 meeting
December 11 – 12, 2014

Committee members in attendance:

James Barbret	Wayne State University
Jake Barkdoll	Consultant
Cindy Blazy	Consultant
Marti Dunne	New York University
Charlene Hayes	Johns Hopkins University
Michael Holland	New York University
Cindy Hope	University of Alabama
Alicia Knoedler	University of Oklahoma
Greg Jackson	NBC Universal
Jan Jones	United States Capitol Police
Kathryn Newcomer	George Washington University
John Palguta	Partnership for Public Service
Katy Schmoll	University Corporation for Atmospheric Research
Susan Sedwick	University of Texas at Austin
Dick Seligman	California Institute of Technology
John Tao	O-Innovation Advisors LLC
Joe Thompson	Retired
David Trinkle	UC Berkeley
Doug Webster	Cambio Consulting Group

This report summarizes the discussions that took place at the fall 2014 meeting of the Business and Operations Advisory Committee (BOAC). The meeting was devoted to two major topics. The first was change management and its implications for three major NSF projects, including the implementation of a new financial system, ITRAK; the agency's Relocation to Alexandria, Virginia; and the challenges presented by succession planning. The second topic was a review of NSF's strategic review process.

Introduction

Charlene Hayes announced that this is her last meeting and the last meeting for members Cindy Blazy and Kathryn Newcomer. Susan Sedwick has agreed to join Greg Jackson as the new co-chair for 2015.

Dr. Cliff Gabriel's term as Acting Head of OIRM ended with the appointment of Joanne Tornow as OIRM's new Head. Dr. Tornow and the members of the committee introduced themselves briefly.

The Committee changed the order of business for this meeting to accommodate the NSF Director's schedule. Dr. France Córdoba had unexpected travel plans, so she and Dr. Buckius, NSF's Chief Operating Officer, joined the Committee at the beginning of its two-day meeting instead of at the end of the meeting on the second day.

Meeting with Dr. Córdoba and Dr. Buckius.

Dr. France Córdoba opened the discussion by expressing her appreciation to the committee for its work and the contributions of each of its members. She underscored the need for NSF to focus on improved operations, noting that the programs and merit review system work well. She added that in a climate of intensive oversight, it is critical for NSF to look at new and different models for efficient operations—an area in which Dr. Cordova spends most of her time. Dr. Córdoba emphasized that the challenges the agency faces come from not what NSF does, but how it does its business. The mission is secure and supported by talented people and federal investments in the scientific community. The only issue is what can NSF do to take advantage of opportunities for new and improved models for efficient operations.

Dr. Córdoba foreshadowed the meeting ahead for BOAC, indicating to the members that the BOAC plays a special role with regard to the agency's efforts to improve its operations and that she looks forward to receiving its advice and counsel. Before opening it up for questions, Dr. Cordova congratulated Marty Rubenstein for a successful implementation of iTRAK; she acknowledged delays in the relocation process as a result of difficult negotiations with the union; and, informed BOAC members that succession planning is a priority for the agency. She expressed an interest in hearing the committee members' thoughts on each of these topics and our advice regarding strategies for managing all of the changes.

Through the Q&A that followed Dr. Córdoba's remarks to the Committee, she and Committee members expressed concerns about the "misinterpretations" and "miscommunications" that occur when people focus on anything less than the science. Recent controversies over the titles attached to some NSF projects are an example of this. Dr. Córdoba emphasized the need to ensure clear communication regarding both the science and the processes intended to advance the science.

BFA/OIRM Updates

Marty Rubenstein, Chief Financial Officer and Head of Budget, Finance and Award Management (BFA), provided the following updates:

- NSF's budget increased to \$7.344 billion, an increase of \$172 million over last year's budget and \$89 million over the President's request.
- NSF is still under travel restraints imposed by the White House and working hard to ensure that the move is not negatively impacted by the budget.
- Julia Jester emphasized that there is a great deal of uncertainty about congressional support for NSF. Legislative Affairs is focused on building and maintaining relationships on both sides of the aisle. Lamar Smith (R-Texas) is the chair of the Science Committee, but the membership has not yet been finalized. There is currently a lot of support for NSF, but many of NSF's champions are retiring.

Joanne Tornow, discussed NSF's plans to modernize proposal submission and merge Fastlane and research.gov. NSF's pending move will help to facilitate this modernization process by enhancing the IT infrastructure.

Dr. Tornow also mentioned that NSF is seeing positive trends on the Federal Employee Viewpoint Survey, scoring above the government average on all indices with the highest agency response rate.

BOAC Committee Recommendations Update

Charisse Carney-Nunes reviewed with Committee members the process for tracking recommendations arising from BOAC discussions. The agency has been tracking the Committee's recommendations for a number of years. In response to BOAC members' desire to understand the impact of the Committee's work, NSF will add greater clarity to the tracking system with more details in the update section. Agency staff gave more detailed updates on several of the recommendations that were of particular interest to the Committee members.

The Committee then turned to the Change Management discussion, beginning first with a discussion of the details related to iTRAK.

iTRAK

Gisele Holden, the iTRAK project manager, provided a brief update of the implementation, starting with a review of the reasons behind it. NSF implemented iTRAK to provide the program officers with better data, improved access to data and greater transparency for decision making. The project simplified and standardized processes, and enhanced controls and compliance. During the course of implementation, BFA reached out to agency employees for input, sought and received visible executive support and worked collaboratively with OIRM.

In the first two months of implementation, iTRAK processed nearly 81,000 payments for over \$813 million, exceeding the FAS productivity levels with no reduction in performance. The change management effort included training over 400 users in 100 class sessions and helping more than 400 of the 460 trained users with "real work" sessions through its command center, which is scheduled to close on March 31. The plans include a survey of users in February. NSF

sought the Committee's advice about any recommended next steps for the stabilization and adoption phases. The Committee suggested that an enhanced communication tool to report statistics could be incorporated during the adoption phase. In response to other questions from the group, Gisele noted that iTRAK provides additional automation in areas that were not previously automated. It also offers better controls to ensure greater compliance with agency rules and regulations, and it provides information regarding the users' experience that can be used for diagnostic purposes in an effort to determine areas needing intervention.

NSF's Relocation

Mignon Anthony, Project Director for Future NSF, provided an update on activities and issues related to NSF's move to a new facility in Alexandria, Virginia. The report included a detailed review of the progress made on the building's construction and the challenges arising from the building design and technology. She also discussed the on-going and proposed internal and external communications activities. Mignon's report contained the following specifics:

- The building's ownership has officially transferred to the developer, USAA Insurance. At the time of the report, the construction crews were working on the 4th floor deck of the building. Mignon shared several photos of the site.
- The NSF and the union reached an impasse in negotiations over the size of work spaces in the new design. As a result of the impasse, the construction is delayed by approximately 6 to 9 months. The new date targeted for occupancy is sometime in the first half of 2017. The overall impact on cost, design and schedule is still unknown.
- Planned technology enhancements are designed to address the challenges faced by the Agency in its current location. Specifically, increased broadband capability; improved virtual meeting capacity; redundant connectivity pathways for the IT system to ensure flexibility and adaptability over time; smart elevators; voice-over IP; and, physical security controls and badging, are among the technology enhancements planned for the new building.
- NSF is exploring several move scenarios and looking at the financial implications of each—e.g., move in stages and move panels with the related unit or en masse.
- Internal communications includes periodic updates in the Weekly Wire, individual briefings at the unit level and monthly site tours; IdeaShare campaigns, staff surveys and a proposed pilot to test for acoustical problems and to reassure employees that any concerns about privacy will be addressed.
- Efforts to communicate externally include conversations with the Alexandria Economic Development Partnership. Mignon serves on its board of directors. The primary focus of the discussions is childcare. With the relocation to Alexandria, NSF is losing its childcare facility. The agency hopes to get help from the Partnership to develop a solution that will serve NSF and the larger downtown Alexandria community. Other external communication efforts include benchmarking other agency practices and lessons learned during similar moves.

In response to questions from members of the BOAC, Mignon explained that the square footage in the new building will be roughly the same as that in the current headquarters. The design will be basically the same, but will include smaller offices and cubicles to accommodate more common and collaboration space. With the move, NSF is investing \$8 million in a modular wall system that will give the agency greater flexibility for the future. In response to questions from the Committee, NSF also shared that the Agency is focused on improved wireless connectivity in the new reception area; and that the building has a substantial water abatement management system because the area is prone to flooding.

Committee members stressed the importance of frequent communication with the staff and the need to engage the business community in the new neighborhood.

In conclusion, Mignon noted that NSF would not suspend panels during the move. The cost of disrupting the scientific community would be far greater than the cost of the move.

Succession Planning

Judy Sunley, Director of the Human Resource Management Division, discussed NSF's need to focus on succession planning. The agency's move to Alexandria coupled with the number of staff members who are eligible for retirement poses a real threat to the overall stability of the agency's future. NSF could see a 50% turnover by 2017. Dr. Sunley highlighted several indicators of the problem:

- The number of staff retiring in FY 2014 was double that of FY 2013.
- In FY 2014, 16% of the staff was eligible for retirement. That number is predicted to jump to 30% in FY 2019.
- 40% of the staff with less than 5 years of employment with NSF indicated their intent to leave the agency for a variety of reasons within the next three years.

The need for succession planning is complicated by the fact that the Agency relies heavily on rotators. Ultimately, the strategy must include a delicate balance of the needs of that group of employees and the agency's career employees. Dr. Sunley also acknowledged the need to focus on improvements in the agency's recruitment strategies as it focuses on succession planning. Currently, it takes an average of 8 months or more to fill an SES level position at NSF. If turnover rates reach the level of the potential suggested here, that could present serious staffing problems for the future.

The Committee applauded the agency's recognition of the need to develop sound succession planning strategies, noting that the leadership of the agency should also be focused on it—not just Human Resources. Members of the committee outlined several things that should receive the agency's attention as it thinks about succession planning. These include the following:

- Knowledge management, which is particularly challenging given the agency's reliance on rotators in management positions;

- Leadership development, including mentoring programs; and,
- The need for more effective management and leadership skills in the rotators.

The Committee also encouraged the agency to continue its focus on developing a succession planning strategy, but challenged them to couple it with efforts to retain those members of the staff who are important to the future of the agency. The upcoming move of the headquarters to Alexandria will make retention a bigger problem. That makes effective change management strategies that much more important. Suggestions included:

- Focus on removing those things that are “dissatisfiers” for staff members;
- Get employee feedback on the design to improve the employee experience in the new facility;
- Look at creative ways to address the childcare issues that are presented by the fact that NSF will likely no longer have an onsite childcare facility. Work with the business community to address the issue; and
- Look for ways to expand opportunities for alternative workplaces and arrangements.

The agency was encouraged to look at the best practices of other agencies for ideas. Some suggestions offered were the Government Accountability Office for its professional development program; the Defense Intelligence Agency for its employment practices; and the Pentagon for its communication strategies.

Change Management

Kathy Newcomer and Doug Webster led the discussion about the implications for change management presented by the three critical projects presented to the advisory committee: iTRAK, NSF’s relocation and succession planning. Kathy reminded the staff that internal communication is key to any effort at change management. The communication should be frequent and two-way with safe and secure methods for providing input, including the opportunity for anonymous feedback. She also recommended the use of alternative methods for seeking feedback. Focus groups are effective strategies when combined with surveys for the broader audience. Doug Webster also suggested that it is important to focus first on the emotional impacts of change (“head and heart”) in order to motivate staff to engage. Specific suggestions for each of the projects included the following:

iTRAK

- Focus on the clear benefits of the new system, while acknowledging the pain associated with the change;
- Continue to build acceptance and positive perceptions by measuring and communicating the positive impacts of the new tool; and
- Continue to receive and respond to feedback from the user groups.

NSF's Relocation

- Focus communications on the quality of the employee's experience in the new facility;
- Learn from past experiences with disrupting merit panel review committees and avoid the same mistakes;
- Engage the leadership constantly in setting the tone for change; and,
- Routinely and religiously update the FAQs on the relocation and negotiations with the union.

Succession Planning

- Identify the top 10 to 15% of NSF's top performers and develop retention strategies for them;
- Involve every level of supervisor in evaluating team members for retention and leadership development;
- Find creative and informal ways to encourage mentor relationships within the agency;
- Don't fear all retirements. Look at them as opportunities to make new investments in the NSF's human capital;
- Think creatively about recruiting strong rotators and new employees. Call on former employees to help with recommendations; and
- Use the new bi-level professional development program to help retain those employees who might otherwise leave for promotional opportunities at other agencies.

Strategic Review Process: A Mechanism to Empower the Agency to Effect Change

NSF's Deputy Performance Improvement Officer, Pam O'Neil, provided the Committee with an overview of NSF's approach to meeting the GPRA Modernization Act requirement to assess the performance of its strategic plan. NSF's process is data driven and designed to assess the agency's progress on:

- Achieving its strategic objectives;
- Informing strategic decision-making, including budget decisions and near-term management actions; and
- Helping with the preparation of the Annual Performance Plan and Annual Performance Report.

The Committee applauded NSF for its approach and encouraged the agency to increase the chances for sustainability by focusing on institutionalizing goal setting, measurements and metrics and adding rewards for staff members who are successful at accomplishing their goals. Additional suggestions for ensuring sustainability included: engaging a larger number of constituents, including non-management level employees, stakeholders like universities, and the Office of Management and Budget; and, limiting the number of actionable goals each year

in order to avoid fatigue. The goals should be clear and transparent, and individual employees at all levels should understand how their jobs contribute to NSF's ability to achieve its goals.

Risk-Based Management

Jeff Lupis provided a report to the Committee regarding BFA's efforts to use a formal risk-based system as a tool for managing organizational priorities in the face of increased demands and more limited resources. This approach to managing the workload and priorities is a natural extension of the strategies used by BFA to manage its strategic priorities during FY 2011 and 2012. An internal work group during that period recommended that the BFA manage its resources by reconsidering the time and effort spent on traditional work areas. Mr. Lupis asked members of the BOAC to help BFA think through the best way to use and maintain an enterprise risk management approach in this context.

Mr. Lupis explained that BFA is not yet ready to tackle the issue of risk-based management across all of NSF. It is being used to some degree in an effort to manage the move. A group of executives and a staff working group have been working to identify and mitigate the risks associated specifically with the move to Alexandria. Members of the Committee suggested that BFA should think carefully about the dissemination of information related to the assessment of risks. Who is the audience? Who needs to know? Who will have the responsibility to address the issues identified by the risk assessment? These are all important questions, and Committee members suggested a need for clarity around the answers to all of them. Several members suggested the use of color coding to create a "heat map" that clearly communicates the nature and level of the risks, plans for mitigating the risks, and the cost of mitigation. The purpose of engaging in risk management is to understand and manage the risk. It is not about eliminating risks. The Committee concluded its discussion by applauding BFA's risk-based management approach and suggesting that enterprise-wide risk management would be advisable across all of NSF.