

National Science Foundation
Advisory Committee for Business and Operations
Fall 2016 Meeting Minutes
November 29-30, 2016

Tuesday, November 29, 2016

Members in Attendance

James Barbret	Wayne State University
Warren Buck	University of Washington, Bothell
Lee Cheatham	Brookhaven National Lab
Charles Grimes	Consultant
Michael Holland	New York University
Cindy Hope	University of Alabama
John Kamensky	IBM Center for the Business of Government
Kim Moreland	University of Wisconsin- Madison
John Palguta	Partnership for Public Service
Theresa Pardo	University of Albany- State University of New York
Susan Sedwick	Attain LLC
Stephanie Short	US Department of Energy, Office of Science
John Tao	O-Innovation Advisors LLC
Joe Thompson	Retired
David Trinkle	University of California-Berkeley
Doug Webster	US Agency for International Development

Welcome/Introductions/Recap

Chuck Grimes called the meeting to order and provided the following announcements.

Departing Members: Chuck announced the following members for which this was their last meeting and thanked Jim Barbret, Warren Buck, Cindy Hope, David Trinkle for their enthusiasm and many contributions over the years.

BFA/OIRM/OLPA Updates

Presenters: Marty Rubenstein, BFA, Joanne Tornow, OIRM; Tony Gibson, OLPA and Michael Sieverts, BFA/Budget (Joint Update)

Marty and Joanne provided updates on staff changes and the following:

- Federal Hiring Excellence Initiative
- IT modernization especially with respect to reducing administrative burdens
- Records management with a focus on digitization
- Restructure of the Costs Analysis and Audit Resolution branch to strengthen oversight
- iTRAK in its 2nd year
- FY 2017 Critical Dates Memo

Michael Sieverts reported that NSF appropriation had enjoyed a 5% average growth rates from 1999 to 2009. However, from FY 2010 to FY 2016, the average growth was less than 1%. The Bipartisan Budget Act of 2015 was meant to provide some relief on the discretionary budget caps. The cap doesn't change for FY 2018 although there had been some talk of lowering the level going forward. The incoming

administration's "Penny Plan" would take 1% off discretionary spending per year for non-defense appropriations on the domestic side.

Tony Gibson provided an analysis of the election outcomes in House and Senate, what that means for committee leadership, and how that might impact NSF.

Update on Relocation of NSF Headquarters

Presenters: Joanne Tornow, OIRM; Brian MacDonald, OIRM/NRO

Discussant: Jim Barbret

The purpose of this session was to give the Committee (BOAC) an update on the relocation project. The Committee has been involved over the past 3-4 years in the project. With the scheduled move to take place in late summer and early fall of 2017, we are less than one year away from the completion. The update and subsequent discussion was driven in three tracks or components of the project: 1) the physical construction project, 2) the logistics surrounding the move of 2,200+ people, and, 3) the human factors associated with the significant change in the NSF community.

The Building

Brian MacDonald detailed the current status of floors, exteriors and interiors. Brian explained the critical value of the new building and highlighted the use of newer technologies. The increased capabilities will give NSF new tools to better deliver its mission. He, along with Joanne Tornow, explained the new approach to branding NSF and the directorates and how this has been incorporated into the building signage and future growth.

The Move

Brian further laid out the current strategies around moving the populace. This includes the sequencing of units, i.e. who gets to go first, and the actual approach to be used. The underlying goal – be as transparent as possible to the entire NSF community, ensuring business continuity and minimum disruption. An example of how this will occur is the use of VOIP communications. Phone numbers will remain the same, moving of phone lines is a thing of the past. In short, NSF'ers will pack up on a Wednesday in Ballston, go to work the following Monday in Alexandria. How the Thursday-Friday activity is to be handled is still being discussed.

The Human Factor

This aspect of the project was where Joanne was seeking the committee's input and advice. The moving of 2,200+ people is a logistical challenge (see above), but also a challenge to manage the impact to the individual.

Questions for the Committee:

Specific questions posed to the Committee regarding the post-move transition to the new headquarters building were primarily how NSF could start planning now to prepare for post-move?

- After the move is complete, how do we avoid a "letdown" for the team and staff that worked on the relocation?
- What are some best practices to help staff get acquainted quickly and comfortably with the new surroundings and new processes?

The Committee was extremely pleased and commended NSF for the energies that had already been placed in the change management and communications efforts. The involvement of employees in selecting office styles, the ongoing tours of the area to acquaint staff with the neighborhoods has already made major strides in making the move a success.

The Committee sees a number of "subsets" of individuals whose involvement has been different and how their "needs" may be addressed differently. The subsets are:

1. The Core Project Team - primarily Brian's team – staff who have been focused on this project as almost their sole function for a period of time
2. The "Involved" Employees - those individuals who have maintained their day jobs while playing a key role in the transition
3. The "Others" - those individuals who have had little role/involvement in the project. They have been on the sidelines, watching and waiting.

Committee Discussion and Advice:

- Suggested the formation of SWAT teams to troubleshoot things that don't go as planned.
- NSF could create top ten lists of complaints/challenges in the new building and how they are being addressed.
- For the Core Project Team, can they work on projects that have been on the back burner?
- Suggested to continue NSF-wide town meetings well after the move is completed.
- For lessons learned, best to wait awhile until things have settled in. Maybe a year?

NSF Strategic Plan

Presenter: Steve Meacham, OIA

Discussant: John Kamensky

The background materials outlined that the idea of an administrative or operational Strategic Goal for NSF originated in the 2001-2002 timeframe, when a Strategic Plan for Administration and Management was created. Subsequently with the help of the BOAC, a strategic goal called "Organizational Excellence" was included in the FY 2003-2008 Strategic Plan for NSF. This was the first strategic plan for NSF where a Strategic Goal around its business operations was at the same level as goals for science, engineering and education (at that time, called People, Ideas and Tools). In the current NSF Strategic Plan (FY 2014-18), the goal is called "Excel as a Federal Science Agency."

Steve Meacham provided a review of the process and timeline of the development of NSF's new strategic plan stressing that this was not a university strategic plan in that it was at a much higher level. He reviewed the current NSF mission, core values, and strategic goals and objectives.

John Kamensky began with his general observations:

- The challenge of a good strategic plan is to capture aspirations in a way that can be understood by the general public, stakeholders, and employees.
- The planning process needs to take into account the larger context – What are the global trends in basic scientific research, and what are other federal agencies doing? What is core to NSF that others are not addressing?
- The process also needs to take into account how it links to the work of the individual employees at NSF – can they create a "line of sight" between what they do, and the strategic goals in the plan, so they can see concretely how what they do on a daily basis contributes to the larger mission?

Observations Specific to Goal #3: "Excel as a Federal Science Agency"

NSF staff posed the question: should this remain as a strategic goal for NSF? The Committee concludes: "Yes." While this strategic goal element largely focuses on the "how" of NSF's business, and not the "what," it is a critical element to NSF's ability to succeed. Key to NSF's mission success is its ability to independently determine what kinds of research is pursued, and that the most qualified researchers are funded. The integrity of the merit review processes is critical to being able to do this, without external interferences. The ability to be seen as legitimate by stakeholders and the public is rooted in the effectiveness and efficiency of NSF's grant-making, oversight, and communication processes.

This goal is where NSF strives for legitimacy, not merely excelling at “being compliant.”

Additional Observations

The strategic planning process should be used as the integrator of/with other ongoing management-related initiatives already underway – not as a separate project. These other initiatives are due in roughly the same timeframe that NSF’s draft strategic plan is due to OMB (in late May, June 2017):

- NSF’s annual strategic review (to be conducted in late spring/early summer 2017)
- Submission of NSF’s first enterprise risk management profiles (June 2017)
- Link to NSF’s annual performance plan for FY 2018, et seq.

BOAC and Operations with its Subcommittees

Presenter: Charisse Carney-Nunes, BFA

Charisse summarized the discussion at the Spring 2016 meeting for the members and presented a revised BOAC Guidance Document for the Creation and Operation of Subcommittees. The Committee has successfully undertaken the practice of using the formal subcommittee mechanism to examine specific business matters in more depth and with broader external membership than would normally be on the Committee itself. At the Fall 2010 meeting, the Committee recommended that NSF continue this practice, and NSF accepted this recommendation at the Spring 2011 Committee meeting. Thereafter, the Committee sought to better understand the relevant legal information, its options for frameworks, and to identify best practices. NSF staff conducted research, including interviewing past subcommittee participants and identified draft best practices and draft subcommittee guidance that was never adopted. NSF staff updated the draft guidance on subcommittees, and shared this draft with members in advance of this meeting. The draft document has undergone legal review at NSF and the document has the potential to become a model for other NSF advisory committees.

Feedback from the Committee:

NSF requested that the Committee consider the updated draft guidance and recommend that it be finalized and implemented as part of the Committee’s internal operations going forward.

The Committee offered input for non-substantive revisions and **recommended adoption of the document with those revisions**. After the revisions are made, the document will be circulated via email to all members for final review.

Update from the Subcommittee on National Academy of Public Administration (NAPA) Implementation Regarding NSF’s Use of Cooperative Agreements to Support Large Scale Investments in Science and Technology

Presenter: Mike Holland

Mike Holland reported on the BOAC Subcommittee on NAPA Implementation, which was charged with preparing a report for BOAC approval that recommends actions to NSF for implementing a subset of National Academy of Public Administration recommendations related to NSF-wide oversight of large-scale research facilities in the report, National Science Foundation: Use of Cooperative Agreements to Support Large Scale Investment in Research. Specifically, the Subcommittee has been charged with providing options for appropriate agency-wide oversight for the NSF Office of the Director (OD) for the following four tasks:

- Re-scope of the role, duties, and membership of the Major Research Equipment and Facilities Construction (MREFC) Panel to include status update reviews of projects in the development and construction phases focusing on cost, schedule, and performance. [NAPA Recommendation 6.2]

- Evaluate the potential value in extending the MREFC Panel's role to operating facilities, including divestment (i.e. full life-cycle).
- Evaluate the potential value in creating an internal agency "senior official" position in OD charged with reporting to the Director and Deputy Director/Chief Operating Officer on large facilities.
- Evaluate the potential value in creating a new Federal Advisory Committee Act (FACA) committee to provide the NSF Director with a sounding board for objective insight on large research projects. [NAPA Recommendation 6.4]

Mike reported the following actions by the subcommittee:

- The Subcommittee held a kickoff meeting Aug 3-4, 2016 to be briefed on the current MREFC process and to hear the viewpoints of important stakeholders in that process including the ADs, and the IG. The Subcommittee has had subsequent information gathering calls with Director Córdova, NSB Executive Secretariat staff, and Lt. Gen James A. Abrahamson, USAF (Ret.), who served as the Senior Advisor for NEON.
- Regarding the charge to examine extending the scope of the MREFC Panel to include project oversight, the subcommittee's provisional recommendations are that [1] NSF should create separate, well-coordinated processes for approvals and for project oversight, thinking carefully about the appropriate questions and expertise required for approvals differs from that of oversight; [2] the MREFC Panel's role should focus on approvals that move projects of \$50M or greater through each stage in their life cycle, beyond the current practice of entry to MREFC account. In addition, the Role of Director's Review Board needs clarification; and [3] a separate group should be charged with on-going, risk-based oversight of projects.
- Regarding the charge to examine extending the scope of the MREFC panel to include a project's full life-cycle, the provisional recommendations are that [1] NSF should establish a standing internal committee that will meet regularly to review not only the cost, schedule, and performance of all NSF projects in the development and construction stages, but also the operational performance metrics for the full portfolio of NSF large facilities to ensure that they are delivering the maximum scientific benefit possible; and [2] Dr. Cordova's interim watchlist group fulfills many of the functions that we envision for this recommended oversight committee.
- Regarding the charge to examine the potential value in creating an internal agency "senior official" position and a new large facilities FACA, the Subcommittee is still formulating its response. The Subcommittee sees these two charges as intimately linked, and additional discussions will be focused on ways that NSF can clarify the lines of authority between the Office of the Director and the directorates with respect to large facilities rather than the creation of new positions or committees.
- The committee expects its work to be completed by the Spring 2017 BOAC meeting.

Committee Discussion:

It was also noted that if passed, *S. 1550 - Program Management Improvement Accountability Act*, which has passed both House and Senate votes and has been forwarded to the president for signature, could have implications for oversight responsibility within NSF.

Application of Lessons Learned from Other Lessons-Learned Programs

Presenter: Rebecca Yasky, BFA/LFO

Discussant: Theresa Pardo

NAPA Recommendation 6.9 urged the NSF to formally establish communities of practice to share best practices and implement a "lesson learned" requirement for all MREFC projects.

Rebecca Yasky explained that NSF is seeking advice based on broad organizational experience with potential mechanisms and pitfalls in establishing *formal* lessons learned programs and specifically sought

advice on best practices and potential missteps with lessons learned programs when creating a culture of continuous improvement within a multi-disciplinary, vertically segregated organization. The charge for this session was to look beyond the large facilities realm in thinking broadly and drawing on actual experiences.

The Questions

- How is a culture of continuous improvement established?
- What are the key elements of a lessons learned programs that drive the benefits to organizations?
- How are communities of practice, lessons learned documents and changes to policy and or procedures tied together?
- How does your organizations share lessons learned externally?
- Are there any issues with sharing lessons learned outside your organizations?

Committee Discussion (led by Theresa Pardo):

- The Committee noted that while there is a relationship ideally between related Communities of Practice (COP) and formalized Lessons Learned (LL) requirements, they are not the same and should be institutionalized accordingly, drawing on extensive literature related to the creation, use and sustainability of both types of organizational resources.
- Communities of Practice are critical, yet often organic and self-organizing organizational resources that rely on a set of conditions being created to nurture and sustain energy and interest in convening and in the free flow of information among colleagues while “Lessons Learned” programs are formalized programs that are integrated into decision processes and can be understood more in terms of a risk management resource.
- There are successful models of COP and the capture and use of LL in a variety of environments particularly in terms of how to use COPs to respond to LL conclusions. Agencies already on the NSF radar were considered good models – DOE, NASA among them.
- There was agreement on the challenges:
 - Creating and sustaining COP – social learning systems – with the right mix of openness and engagement that allow for the safe and productive sharing of insights at the individual and group level.
 - Establishing the right mix of informality and formality.
 - The evolution from a self-organizing community of practice to an organization that values lessons learned and sees and compels them as input into decision making of all kinds.
- The Committee acknowledged the challenges of sharing LL externally extend from issues of proprietary information to credibility refer to the models in place at DOE and NASA among others as reference points.

Committee Recommendation:

The NAPA recommendation calls for the formal establishment of communities of practice. The Committee recognizes the value of communities of practice – but wrestled with the notion of “formally” creating them. COPs are not typically created through formal action but emerge through the recognition that there is value to the participants. The Committee recommends investment in a set of conditions that make the communities of practice successful with recognition of the critical success factors for building sustainable communities of practice, understanding that this is a pull not a push knowledge sharing model.

- Identifying key topics among groups of people who want to know what others know about that topic.
- Create a safe environment and format that incentivizes the sharing of stories both success and crash and burn stories – from people who lived the stories as well as from outside experts.
- Culture of openness to sharing mistakes and incentivizing full participation because people need to feel safe if they are going to be forthcoming in their lessons learned.
- Lessons learned are most effective when positive.

- Model for using LL and COP should create a format in the COP that makes it possible for insights generated from the COP environment to be input, where appropriate to the formal lessons learned program, resulting in the integration of lessons learned into policy making.
- Recognize that building a sustainable COP a takes time because it requires a culture change.
- Establishing the right mix of informality and formality is critical to the success of a COP as it evolves from a self-organizing COP to formalized program that values lessons learned and sees them (compels them) as input into decision making of all kinds.
- Facilitation is key. Picking the smartest person to run the conversation or the COP is not necessarily the best strategy when what is needed are people who know how to cultivate conversation and use group process techniques to move a conversation along and to maximize the productivity of the conversation.

The Committee supports this recommendation from NAPA and recognizes a formalized LL program is an appropriate addition to the requirements of project management for all MREFC projects. The Committee further noted that such a program should be understood as a required component of the alternatives analysis and risk management processes for standard professional project management.

Wednesday, November 30, 2016

Results from the 2016 Federal Employee Viewpoint Survey (FEVS)

Presenter: Joanne Tornow, OIRM

Discussant: John Palguta

Joanne Tornow cited the key results from the 2016 FEVS:

- NSF is third highest among medium and small agencies on Employee Engagement scores (behind Office of Management and Budget and the Nuclear Regulatory Commission).
- All questions score higher than government average except for two (76 out of 78).
- High response rate of 74% (government-wide average is 46%).
- Ongoing focus areas are workload, career development, and performance management.

The FEVS results for NSF demonstrate that efforts in this area have paid off. NSF had a 74% participation rate compared to 46% government-wide. In response to the question of whether NSF was prepared for a potential security threat, NSF respondents were aligned closely with the responses government-wide with NSF at 75% and government-wide at 77%. Ratings for Performance Management and Career Development have steadily increased but work remains around Workload. Perceptions about workload are a persistent problem and stressor although there isn't a good correlation between processes and perceptions. The greatest increases over 5 years were in Communication from Management which saw a 14.6% increase, the greatest increase over past year were for High Standards of Honesty and Integrity with a 7.3% increase. The greatest decrease over past year was in Physical Conditions at 3.8%.

NSF paid OPM to administer the survey to rotating employees since NSF relies significantly on rotating personnel. There were some significant gaps between responses by permanent and rotating employees.

John Palguta noted that 2017 will be an event filled year for the nation and the Foundation and reminded everyone of the strong positive correlation between employee engagement and productivity. He commended NSF for the positive trajectory of its results but encouraged them to continue working toward surpassing its 2009 results which were the peak for NSF. These data are valuable because you can actually do something with the data. John congratulated the Foundation for doing a lot of good things in this area citing the 74% response rate as very high.

Committee Discussion:

- To the question of Global Satisfaction, NSF's ranking went up a couple of places.
- To the question about the percentage of employees who plan to leave because of the relocation and the fact that a significant number of employees who are eligible to retire, NSF has set a goal to retain 70% of employees through the move. Projections are tracking better than the averages over the past 5 years based on retirement eligibility alone. Projections are still above the line at this point using a straight-line projection. The quality of relationship between supervisor and employee is a primary driver of employee engagement and satisfaction. The agency revamped recognition efforts—including the Director's Awards—and made a push to ensure quality conversations are happening between supervisors and employees. Satisfaction with performance management and leadership communication are among the items on which scores have improved the most.
- It was noted that one challenge with annual surveys is the timeline for implementing action planning for implementing responses overlaps the next survey so there is a challenge in conveying to employees the message that something is being done. Survey administered in April with the first results issued in August and detailed results come out in Fall. It was noted that NSF still doesn't have the data for different job families (admin, program, management). Biennial

surveys to alleviate some of the survey fatigue NSF is implementing a Promising Practices series April – Sept.

- It was noted that the security issue should be lessened with the move due to enhanced security measures in the new headquarters building.
- One member cited anecdotal information from the Engineering Directorate that there is “lots of busy work” especially with proposal management. It was suggested that NSF continue to identify IT functionality to address this issue although IT solutions can change who does what work so it may solve a problem for one group and increase workload for another. Proposal load is increased due to lower funding rates which in turn cause people to submit more proposals. One program dropped their deadline dates which resulted in a 50% decrease in number of proposals submitted which has been sustained. Other directorates are looking at this. Cross directorate work is not set up as well to look at this issue which is believed to be a significant stressor.
- Members offered suggestions on how supervisors should use the information to engage with employees. Emphasize the positive results as the issue areas. Lead people toward what is working well. Be careful to establish meaningful objectives and benchmarks for individual units.
- Since having a good relationship with a supervisor has a strong correlation with retention of employees, NSF should continue to invest in training and resources for supervisors.

Discussion with Drs. Córdoba and Buckius

Discussant: Susie Sedwick

Susie Sedwick welcomed Drs. Córdoba and Buckius and had the Committee introduce themselves. The discussants for each of the sessions listed below reported on their respective sessions including one “preview” for the remaining session that will follow this discussion. One item not covered by a discussant was the Committee’s forthcoming recommendation for its Guidance Document for the Creation and Operation of Subcommittees under the BOAC. The Committee advised that the BOAC is recommending that NSF adopt the Guidance with a few minor clarifying revisions that will be made by Charisse Carney-Nunes. Susie also noted that the document makes it clear that subcommittees should be ad hoc and for specific purposes for a limited time period and discourages standing subcommittees.

1. Jim Barbret – Update on NSF Relocation
2. John Kamensky – NSF Strategic Plan
3. Theresa Pardo – Application of Lessons Learned from Other Lessons Learned Programs
4. John Palguta - Results from the 2016 Federal Employee Viewpoint Survey
5. Alicia Knoedler – Update from the Committee on Equal Opportunities in Science & Engineering
6. Mike Holland – Report from the Subcommittee on the NAPA Implementation regarding NSF’s Use of Cooperative Agreements to Support Large Scale Investments in Science and Technology

There were no significant additional items raised by Drs. Córdoba and Buckius for discussion.

Update: Committee on Equal Opportunities in Science and Engineering (CEOSE)

Update on CEOSE activity and the NSF INCLUDES program.

Presenter: Alicia Knoedler

Alicia Knoedler explained the purpose of the CEOSE was to broaden participation in science and technology by underrepresented minorities. This bold new initiative arose out of NSF’s INCLUDES, a cross-directorate initiative. This accountability system is much more about helping people identify and define what is important not a more formal accountability system.

In the first round, over 600 preproposals were reviewed resulting in awards made for design and development launch pilots and conferences. A new call for preproposals has been issued.

CEOSE sent representatives to the conferences toward providing lessons learned. A meeting of the Principal Investigators of those awards starts today with an agenda focusing on community building. The earlier discussion on Lessons Learned is quite timely as this is starting as a Community of Practice with a discussion on how to evaluate, collect data and implement research.

Committee Discussion:

- One committee member cited that he was an example of how these programs help.
- To the question of whether the programs had a disciplinary focus, Alicia explained that some did while others were more broad.
- To the question of why there was an appearance that tribal colleges were not well represented in the list of awardees, Alicia explained that while many tribal colleges benefit from EPSCoR funding, looking at those numbers is important in the further analysis of proposal demographics.
- It was noted that NSF has authorizing legislation underpinning CEOSE.

Wrap Up/Loose Ends

The committee discussed how the NSF leadership can be engaged in meaningful ways in outreach to employees.

- Ask employees how they want to be engaged by senior leadership.
- Use focus groups to gather information, synthesize and create an action plan for the Director.
- Direct interaction with staff needs to be authentic the approach must be something with which leadership is comfortable and it must work within the culture of the organization.
- It is important to determine what is wanted: direct conversation or simply access to information.
- Two resources mentioned were Charlie Bolden at NASA and Carol Pope at the Federal Relations Board.
- It is important that whatever is done, it must be a priority. Rescheduling sends a message that it is not really a priority.

It was also noted that if the Committee continues to assign the responsibility for the discussants to provide the briefings for the Director and Deputy Director/COO, the whole hour for planning for the meeting with the Director is not needed and that the schedule be adjusted accordingly.

Adjournment

The meeting was adjourned at noon.