



**National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230**

**National Science Foundation
Advisory Committee for Business and Operations
Executive Summary for Spring 2012 Meeting
May 8-9, 2012**

This is the Executive Summary of the spring meeting of the Advisory Committee for Business and Operations held at the National Science Foundation on May 8-9, 2012.

Dick Seligman, Charlene Hayes
Co-chairs

Committee members in attendance:

James Barbret	Wayne State University
Jake Barkdoll	Consultant
Cindy Blazy	Belmont University
Warren Buck	University of Washington, Bothell
Marti Dunne	New York University
Carson Eoyang	Naval Postgraduate School
Charlene Hayes	Johns Hopkins University
Greg Jackson	EDUCAUSE
Kathryn Newcomer	George Washington University
Katy Schmoll	University Corporation for Atmospheric Research
Dick Seligman	California Institute of Technology
Devon Streit	Department of Energy
Joe Thompson	Retired
David Trinkle	UC Berkeley

Meeting commenced at 1:00 pm on May 8, 2012

This report summarizes the discussions and recommendations of the NSF Business and Operations Advisory Committee (hereafter “the Committee”) that took place at the May 8-9, 2012 meeting. These items are reported in the order in which they appeared on the Committee’s agenda.

Administration

Beginning with this Committee meeting, Charlene Hayes, Vice President for Human Resources at the Johns Hopkins University, assumed the duties of Committee Co-Chair. In addition, Joe Thompson was welcomed as a new member of the Committee.

The Committee also welcomed Gene Hubbard, the recently appointed Director of the Office of Information and Resource Management.

Status of Prior Committee Recommendations

The Committee reviewed the status of its recommendations made since the Spring 2011 meeting. Only two remain open and have been addressed at this meeting: (1) Initiating the Subcommittee on Information Technology; (2) Creation of a draft “Guidance for the Creation and Operation of Subcommittees,” and a “Template for Subcommittee Reports.”

Detailed information on the recommendations and their status is contained in the charts that were included in the meeting book.

BFA (Office of Budget, Finance and Award Management) Overview

Marty Rubenstein, Director of BFA and Chief Financial Officer, presented information on activities pertinent to BFA.

- NSF has won the protest from the prior US Antarctic contractor, and a new contract has been awarded to Lockheed Martin and commenced April 1, 2012.
- There have been inquiries from Congress on travel and conferences consuming many organizational resources.
- Limited guidance has been received regarding waivers for [OMB M-11-34 Accelerating Spending of Remaining Funds from ARRA for Discretionary Grant Programs](#)
- All of the iTRAK positions have been filled, however no contract has been awarded for the new financial system; possibly delaying the implementation of the system to October 2014.

OIRM (Office of Information and Resource Management) Overview

Gene Hubbard, Office Head and Chief Human Capital Officer, presented information on activities in OIRM:

- OIRM has been working since Mr. Hubbard arrived to define its Vision and Mission, High Level Goals, which include: to function as one team, to lead the agency to improve/maintain good morale, to resolve the NSF future headquarters site and continued improvement to Information Technology.
- Human capital- accomplishments include implementation of webTA (NSF’s new time and accounting system), extending the employee start time to 6am, and reinstatement of “Take your child to work day.”
- Objectives that are still on the agenda are working toward a culture of inclusiveness, improving internal communications, addressing workload, and improving the performance management systems.
- The Committee had shown prior interest in the status of filling positions throughout NSF that are currently occupied by individuals in an “acting” or “interim” capacity. Specifically, the Committee requested a presentation that identifies the number of current positions held by individuals with an “acting” or “interim” title, the length of time in that status, and the distribution of these positions across NSF. In addition, the Committee wanted to hear observations by NSF staff regarding root causes, hiring challenges specific to NSF, and impacts on NSF, if any.

Gene Hubbard presented information collected in response to the Committee's request. Looking at senior positions within NSF, as of May, 2012 approximately 4% of the positions were vacant and approximately 6% of the positions were occupied by individuals in an acting capacity.

Jake Barkdoll augmented this information with data from information from the Federal Yellow Book (Winter, 2011) for the National Cancer Institute and the Centers for Disease Control. Both Mr. Hubbard and Mr. Barkdoll expressed the view that the number of vacant and acting positions at NSF does not seem particularly high or excessive, compared with other federal agencies. Committee members clarified that the major concern is that long-term temporary assignments in the career leadership positions could adversely impact the agency's ability to carry out important initiatives effectively and in a timely fashion. There is less concern about the rotator positions. The Committee understands the unique nature of these positions and their significance to the NSF.

Following discussion of this topic, the Committee requested a brief update at the next meeting. Having now looked at the numbers, and having found them to be within a reasonable range for federal agencies, the Committee would like to have the following question addressed: Do the number of NSF staff in acting and interim positions impede the ability of NSF to implement its strategic plan?

An update on this issue will commence at the next meeting.

Challenges to Reducing Cost and Identifying Efficiencies

Marty Rubenstein and Sallie Morse reported on the campaign within NSF to reduce costs. A target of approximately \$19 million was identified by OMB. To date, some success has been reported: a reduction of approximately \$900K in travel expenses and a reduction of approximately \$300K in supplies.

There are several strategies in place to accomplish these reduction targets including:

- Travel- implementing travel targets, increasing use of non-refundable tickets, expanding use of virtual panelists.
- Real Property- scheduled energy audits for 18 buildings, reduce NSF footprint, achieve energy savings.
- IT devices- limit number of mobile devices per person, improve management of wireless services, standardize desktop/laptop purchasing and refresh cycles.

Committee discussion followed where questions were raised about upfront costs sometimes required for savings. There was also discussion about whether the virtual panels were effective as an alternative to more traditional panels. The NSF Merit Review Working Group has examined the efficacy question of virtual panels. Social science research gives no clear guidance and NSF expects to know more as virtual panel pilots/usage increases.

It was also suggested that an allowance for IT devices might be a mechanism for savings. Many colleges and universities use this type of method, in which an employee would get a flat amount to purchase IT equipment from a preselected list. An update on this suggestion will be given at the next meeting.

Committee members Jake Barkdoll, Kathy Newcomer, Carson Eoyang, and Jim Barbret presented case studies on the topic of cutting expenditures and the impact of this activity on employee morale and productivity.

- Mr. Barkdoll discussed his experiences with change management at a New Mexico public utility company. Change focused on employees' need of new knowledge and skills. Surveys and interviews were conducted with employees to reinforce urgency and obtain their feedback on what needed to change. Employees identified the need which helped create their acceptance for learning/training. Thus, management was informed of the most valuable training and could properly prioritize.
- Ms. Newcomer discussed a model she has developed regarding the stewardship of change in the public sector. Organizational leaders must diagnose change risk and organizational capacity, strategize and make the case for change, implement and sustain change and reinforce change/develop a change-centric workforce. The organization should consider the complexity of the change, key stakeholders, culture and risk during planning and implementation.
- Mr. Eoyang discussed his experiences as a member of the National Performance Review (NPR) which was introduced during the Clinton administration. NPR involved reinventing and transforming government from top to bottom. The process examined opportunities to improve customer service, reduce cost and improve the quality of service to the American people. Management's sell of the change should include explaining the long term and short term "What's In It For Me" to the employees involved.
- Mr. Barbret's discussion was based on a major change initiative at his institution, Wayne State University. The university implemented a plan to cut \$20 million from the budget and to review all business practices, automate, streamline and remove non-value process steps, review and re-write business policies, and restructure the organization. The initiative was successful due primarily to positive and frequent communication and reinforcement to staff.

Change Management/Effect on Employee Morale

Gene Hubbard discussed the effects of the current austere environment on employee morale. He described the federal environment as the driver for the need for change. Employee morale is impacted by budget pressures, pay freezes, incentive reductions and retirement changes. NSF responses to external authorities put further pressure on NSF staff.

NSF doesn't have any direct evidence of distinctive morale issues as recruitment and retention remains positive. However, Mr. Hubbard stated there were signs or factors of morale issues becoming more evident.

- NSF Employee Viewpoint Survey- NSF's ranking as a "Best Place to Work" has dropped significantly in the past few years. In the previous survey, NSF scored

highly in telework and health and wellness program. NSF received a low rating on employee workload.

- Planning, communications and training have added to the workload of those initiating change. Yet the absence of planning, communications and training adds to workload on the implementation of change, exacerbating continuing issues and decreasing employee satisfaction.

NSF actions plans in this area include:

- Accentuating the positive: stressing usage of telework and promote work/life balance
- Further analyze Employee Viewpoint Survey results
- Provide more internal support such as training and enhanced communication
- Draw on external sources that can provide assistance (e.g., literature, this Committee, OPM).

The following themes emerged from the day's change management discussions:

- It's all about change management
- The focus needs to be on employees and employee morale
- Communication is the key
- Leadership must set the tone, communicating the reasons change is necessary and inspiring employees to support the cause.
- NSF leaders should lead by example, but also find ways to engage employees through committee assignments or otherwise—making it top down and bottom up, simultaneously.

Business Systems Review Subcommittee

Katy Schmall, co-chair of the Business Systems Review Subcommittee and a member of the Advisory Committee, presented a summary of the BSR Subcommittee's final report. The BSR subcommittee was constituted and charged in November 2011 to assess the progress of the BSR program since the 2008 review, to determine if process improvements can be made to increase efficiency at reduced costs, and to suggest improvements for strengthening the business assistance component of the BSR. The subcommittee held several conference calls, obtained and reviewed multiple documents and met on site at NSF.

The following observations were noted by the BSR Subcommittee:

- NSF senior leadership must be clear about the importance of the BSR program and convey its strong support for the program across the Foundation.
 - No adequate resources presently to run the Large Facilities Office.
- Experienced subject matter experts are essential to a successful BSR.
- Consensus on the desired scope and outcome of the BSR is required.
- Agreement on the definition of Business assistance is required.
- The BSR report is lengthy and redundant.
- The scope of the BSR needs to be clarified and more focused using a risk-based approach.

- The BSR guide needs to emphasize/clarify that a good BSR does not need to review all awardee business systems.
- The nature of the awardee should be considered when scoping for a BSR.
- Very difficult for the awardee to distinguish between a BSR and an audit; similarities should be recognized.
- BSR results should become part of post-award monitoring; suggested to hand-off BSR Report from LFO to DACS.

After the presentation, discussion opened up between the Committee members. Highlights of that discussion included:

- The BSR process cannot be accomplished in a more streamlined efficient approach; however, it could be improved with additional resources. If the BSR is going to meet the standards set forth, it needs more resources and staff support.
- A suggestion was made to narrow the scope of the review; however this approach may increase risk.
- NSF should be prepared for site visit assistance versus audits. NSF needs to identify expectations and key issues. All eight items do not need to be reviewed. Guidance should be provided from the OIG and NSF's focused approach should be on the IG's concerns.

Committee discussion expanded to meeting attendees' knowledgeable about the Award Monitoring and Business Assistance Program (AMBAP) administered by the Division of Institution and Award Support and the Division of Grants and Agreements. The Division of Acquisition and Cooperative Support also provided input.

- AMBAP's are performed on 30 institutions determined to be high risk and the reviews are structured to focus on the institutional systems in need of the most review.
- Early studies were performed in order to determine the level of risk for BSR of an institution. The study timing was not well coordinated; however, the interview process did help reduce the risk by 30% from the previous year.

The Committee's discussion concluded by recommending that NSF look into hiring highly skilled contractors or specialized resources that are capable of understanding the culture inherent in providing effective monitoring of institutional business systems charged with proper stewardship of NSF funds.

The Committee voted unanimously to accept the report and submit it to the Designated Federal Officials for further dissemination within the Foundation.

Recompetition of Major Facilities Subcommittee

Dr. Bill Frazer, chair of the Subcommittee on Recpetition of Major Research Facilities presented a summary of the subcommittee's final report. The purpose of this subcommittee was to recommend to the BOAC ideas for implementing the National Science Board's Policy on Recpetition as it pertains to NSF's major facilities.

The subcommittee reviewed three facilities out of the 18 that are funded by NSF: LIGO, IRIS – PASSCAL, Global Seismographic Network and examined the Large Optical and IR telescopes (GEMINI). These NSF facilities were selected to illustrate the diverse scientific disciplines ranging from big-science experiments (e.g., LIGO) to consortia of research institutions in a field (e.g., IRIS). The following findings were summarized:

- The diverse nature of the 18 major facilities requires flexibility in the recompetition process.
- There should be a consistent set of principles for recompetition across NSF despite the diversity.
- The subcommittee did not find a facility for which recompetition is not eventually appropriate.

With respect to the finding of flexibility, the subcommittee determined that five years would be too short of time for recompetition after the initial award. Preparation for recompetition typically begins within 2-3 years prior to the end of the award period. For facilities that are funded for only five years, this would present a disadvantage for the awardee in that less time would be spent in enhancing the science and more in preparing for the recompetition. In addition, this too short an operating period would disincentive innovative proposals. A ten to fifteen year period should be the norm with twenty years in exceptional cases.

The subcommittee outlined considerations that should go into a recompetition decision as follows:

- What are the value and merits of the facility?
- What is the past performance of the incumbent facility operator as determined by surveys, review visits and site audits?
- Is it feasible to recompete? There could be situations where it would be difficult, costly or ill-conceived.
- Are the goals of the recompetition clearly defined? Goals must be clear and reflected in the request for proposals and in the review criteria.
- Any encumbrances that could create obstacles to change the facility management and operators should be identified, mitigated or removed.

Once a decision is reached to recompete, the subcommittee recommended that NSF needs a well-defined transparent process by assigning to one person the responsibility to manage all recompetitions of major facilities. The recompetition manager would:

- identify the goals of the recompetition,
- convene a team,
- create and announce a time table,
- specify the review criteria in advance of the peer review,
- identify the criteria for selection,
- use all available tools to minimize incumbent advantage, and

- ensure the time period between the announcement of recompetition and award notice is as short as possible.

Committee discussion is summarized as follows:

- Congressional guidance should be sought. Of the three facilities that are up for recompetition, two have not recompeted with the same contractor.
- NSB is aware of what each facility needs in terms of structuring a competitive framework.
- Expiring awards should be competed and should not be performance based.
- A grantee's past performance does not negate competition and what can be gained in a recompetition.
- NSB should ask if it is reasonable to recompet every five years and would it be worth the financial commitments.

The subcommittee was commended for its excellent report on an extremely complicated and serious challenge for the Foundation. The Committee voted unanimously to accept the report and submit it to the Designated Federal Officials for further dissemination within the Foundation and to the National Science Board.

Subcommittee Operations/Proposed Guidance

Over the past two years, there has been renewed interest in looking at the use of subcommittees within the overall structure of the Advisory Committee. Within the past eighteen months, three subcommittees have been created and have completed their assignments. A fourth subcommittee, Information Technology, was created last year (May, 2011). It was placed "on hold" when the Chief Information Officer left NSF. Now that there is a permanent leader for OIRM and a permanent CIO, the subcommittee is moving from "on hold" to "active." Greg Jackson, a member of the Advisory Committee, will chair the subcommittee.

BFA Senior Staff Associate Charisse Carney-Nunes presented draft Guidance for the Creation and Operation of Subcommittees. Some of the highlights of that discussion included:

- Subcommittee chairs felt guidance was adequate, but there are challenges present around communication and clarity of charges.
- Subcommittee Membership:
 - Clarifying that NSF makes the final determination about subcommittee membership.
 - Getting NSF-wide buy-in is important in some cases.
 - Subcommittee chair should be named early on in the charge if possible.
 - A Committee member should be member, chair, or liaison.
- Subcommittees rarely encounter conflicts of opinion that cannot be resolved, but if so, making NSF aware of the minority opinion is important and it should be included in the subcommittee report. Other potential conflict resolution strategies include consulting NSF liaisons or Committee co-chairs.

- The subcommittee's need to access governmental information, sometimes sensitive or confidential, should be considered in the charge. What legal standards/policies govern the subcommittee's access to information? Subcommittee access to the NSF Office of General Counsel (OGC) should also be considered.
- NSF should consider that subcommittee co-chairs may want to administer their own meetings, including agenda-setting, room logistics, and virtual participants.
- Subcommittee report template: Extensive template might not be appropriate, but guidance document now may be sufficient. NSF should have the opportunity to correct factual errors, but caution where NSF is seeking independent advice. NSF should be careful that edits do not compromise independence of guidance.
- Function of the Committee is to accept the report, make report publicly available, provide NSF feedback and comments, and transmit report to NSF's Designated Federal Officials, not necessarily agree with report.

Members of the Committee were asked to review the draft guidance document and submit comments within two weeks, i.e., by May 22. The draft is available on the SharePoint site for the Committee.

Meeting with the Deputy Director of the Foundation

Both Dr. Suresh and Dr. Marrett were scheduled to meet with the committee. A last-minute schedule conflict prevented Dr. Suresh from joining us. Dr. Marrett held a discussion with the Committee that addressed a wide range of topics, including the following:

- The need for reducing costs and increasing efficiency, sharing university, agency and industry perspectives. The Committee shared a clear message: when looking at being more efficient and reducing costs, change management is extremely important. Senior management should model these efforts from top, but employees need to be involved and engaged, need opportunity to ask questions, provide perspectives. Dr. Marrett noted that we are not likely to see significant changes in staff and funding, that we will need to do things differently.
- The "meta" message of the meeting: communicate, communicate, communicate, and engage. Gene Hubbard noted the value of the meeting, and that he has 5 things he can act on today, after discussing with Dr. Marrett.
- The Committee noted its concerns about interim and acting positions, particularly within the most senior positions of NSF that it was thrilled to see the appointments of permanent positions in senior positions on the administration side of NSF, noting that this is very important for employee morale.
- One NSF – The Committee noted the importance of building teams at the working group level, cautioning that telecommuting and even new building architecture could work to inhibit One NSF. To compensate, NSF may want to pay attention to specific team building and team bonding activities, and should ensure that the Future NSF team takes this issue under advisement. Dr. Marrett noted that NSF has lots of teams, and that we are awaiting report on inter-agency and intra-agency groups, noting that a plenary report indicates as many as 750 of such groups. Dr. Marrett

continued that NSF is in the process of considering how to decide which teams are worth spending time on.

- Virtual Meetings – Dick Seligman noted that it would be extremely difficult to conduct the Committee meeting virtually. Dr. Marrett suggesting inviting Jose Munoz to an upcoming meeting to speak about virtual meetings. Some of the advisory committees have held virtual meetings. It's been done when the agenda dictates that it makes sense. For example, it would not be done where there are turnover or new members since there is a Committee need for in-person bonding. But when there are routine matters or routine information sharing, meetings could be done virtually.
- There was also some discussion about “green” initiatives at NSF, noting wind energy at the South Pole, conducting energy audits on large facilities, looking at energy saving contracts, and the “Got Green” initiative at NSF Headquarters.
- Dick Seligman summarized the BSR Subcommittee Report, focusing on the following observation: key to BSR is the participation of Subject Matter Experts (SMEs), to the extent SMEs are truly experts that may come from within ranks of experienced staff at NSF or contractor personnel, that's the essence of a good BSR. However, the BSR Subcommittee, for the third time, recommended that to the greatest possible extent, NSF should consider using peers from other comparable facilities, which is very consistent with the peer review process and how NSF operates. Dr. Marrett noted that if this is the third time NSF has received this recommendation, we need to do something about it and asked BFA senior staff to work on it. BFA Senior Staff noted that there had been difficulties encountered with this approach, but with reinforcement, it may work.
- The Co-Chairs noted the outstanding support provided to the Committee by NSF Staff, including Jeff Rich, Charisse Carney-Nunes, Deanna DiGiovanna, Joan Miller, and Patty Balanga.

Final Thoughts

From the perspective of the Committee Co-Chairs, the May, 2012 Advisory Committee meeting was positive, productive, and effective. Members of the Committee and NSF staff were actively engaged in interactive discussions concerning extremely important issues for the Foundation.