

**National Science Foundation**  
**Advisory Committee for Business and Operations**  
**Executive Summary for Spring 2011 Meeting**  
**May 17-18, 2011**

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 17-18, 2011.

**Finalized on: July 29, 2011**

Gloria Rogers, Dick Seligman  
Co-Chairs

**Committee members in attendance:**

Jake Barkdoll	Consultant
Warren Buck	University of Washington, Bothell
Cecilia Conrad	CEOSE Liaison
Marti Dunne	New York University
Carson Eoyang	Naval Postgraduate School
Charlene Hayes	Johns Hopkins University
Greg Jackson	EDUCAUSE
Gloria Rogers	ABET, Inc.
Dick Seligman	California Institute of Technology
Devon Streit	Department of Energy
E. Jennings Taylor	Faraday Technology
David Trinkle	UC Berkeley
Cynthia White	Belmont University

**Committee members absent:**

James Barbret	Wayne State University
Kathryn Newcomer	George Washington University
Katy Schmoll	University Corporation for Atmospheric Research

**Meeting commenced at 1:00 pm on May 17, 2011**

**Status of November 2010 recommendations**

Of the nine recommendations made at the November 2010 Committee meeting, all have either been completed or are in progress.

Please go to

[http://nsf.gov/oirm/bocomm/meetings/may\\_2011/Recommendations\\_to\\_Committee-Final.pdf](http://nsf.gov/oirm/bocomm/meetings/may_2011/Recommendations_to_Committee-Final.pdf) for the detailed recommendations, status and explanations.

**State of the B&O Committee: Increased Use of Subcommittees**

Charisse Carney-Nunes gave a presentation outlining guidelines for Advisory Committee Subcommittees. The presentation reviewed the B&O Advisory Committee's fall 2010 recommendation regarding the increased use of subcommittees; presented research on

advisory committees and subcommittees in the NSF-wide and federal context and examined the basis for the use of subcommittees in the B&O Charter; and presented options for a framework for additional B&O subcommittees and best practices.

The Committee had a rich discussion and question/answer period following the presentation covering such topics as whether the subcommittee had to include a member from the parent, whether subcommittees are subject to open government or FACA-type requirements, what resources NSF provides for subcommittees, sunset dates, the importance of the charge, and the kind of powerful and in-depth expertise that can result from subcommittee work.

Committee conclusions from the discussion were as follows:

- a) Consistent with the B&O Charter, subcommittees may be created when BFA/OIRM identifies a specific topic or issue within the scope of the B&O Advisory Committee where the BFA/OIRM would benefit from in-depth review and recommendations from a panel of subject matter experts.
- b) The Subcommittee charge is drafted by BFA/OIRM and presented to the Committee for recommendations. If the subcommittee needs to be appointed before the next regular meeting of the full Committee, the co-chairs of the Committee will be asked to review the subcommittee charge. Charge should set forth how often the subcommittee is expected to apprise the parent Committee of progress.
- c) Subcommittees may not work independently and must report their recommendations and advice to the full Committee for full deliberation and discussion. *Charter, Section 13.*
- d) Whenever possible, a subcommittee chair(s) will be named when the subcommittee is created.
- e) It is not necessary that a Committee member be a member of each subcommittee.
- f) Whenever possible, a subcommittee will include a Committee member to serve as a liaison back to the parent Committee.
- g) It is a best practice for NSF, the Committee and the subcommittee chair(s) to work collaboratively to agree on subcommittee membership; this may be accomplished via the Committee liaison to the subcommittee.
- h) Committee co-chairs should have the opportunity for input into the draft report.
- i) The subcommittee report will be shared with Committee members well in advance of next Committee meeting.
- j) Because the use of subcommittees is relatively new to B&O, it is important to remain flexible.

Committee recommendations:

- a) The Committee supports the decision of OIRM and BFA to pursue the use of subcommittees.
- b) Sunset dates should be determined at the time of the charge.
- c) A template should be developed for subcommittee reports.
- d) The BFA/OIRM staff and the Committee should review the subcommittee structure and process after this round of subcommittee work.

## Charge of Information Technology Subcommittee

A panel was convened to discuss best practices and models for operating and maintaining secure, reliable IT business systems while also fully utilizing innovative technologies to support work processes at NSF. Discussion also included the consideration of an information technology subcommittee. The panel included Alan Blatecky, Andrea Norris and Jose Munoz.

- Dr. Suresh has requested that NSF Assistant Directors explore more fully how their work intersects with IT at NSF. Dr. Suresh would also like to see next generation IT assist in making NSF business processes more efficient and productive. A future subcommittee on information technology will assist NSF with this effort.
- Discussion coalesced around three major themes that would appear to be likely areas for the subcommittee to tackle:
  - Business-to-business interfaces: security is a particularly important issue in day-to-day interactions with NSF's external community.
  - Virtual platforms: need to consider issues such as appropriate technologies, cost reduction, platform agnosticism, technical support requirements, and workflow integration.
  - Credentials: tools do exist to allow universities to use their credentials to log in to NSF systems such as Fast Lane (e.g., InCommon). Timing and level of institutional adoption is still unclear.

Committee recommendations regarding the proposed information technology subcommittee:

- a) Encourage diversity of subcommittee membership in terms of the types of institutions/organizations represented. To the greatest possible extent and as appropriate to the topics to be addressed, the subcommittee should include established research institutions, private organizations, and institutions with small but growing research. If feasible, subcommittee membership should also include private corporations and perhaps federal agencies that have recently and successfully (and even unsuccessfully) undertaken very complex IT integration transformations
- b) Membership on the subcommittee should include primary users such as faculty and/or research administrators as well as CIOs.
- c) Subcommittee deliberations should not discuss specific technologies but be maintained at a meta-level.
- d) The subcommittee should be mindful that the "price of entry" into a proposed integrated system shouldn't prohibit some institutions from participation.
- e) Committee expressed concerns about the scope of the charge as being too broad. It is suggested that the subcommittee chair, in consultation with OIRM, choose 2 or 3 topics as the focus of the subcommittee's work for this year with the possibility that the subcommittee would be continued or reconstituted to deal with other IT issues.
- f) The size and composition of the committee should reflect the more narrowly focused scope of the subcommittee's charge as finalized.

The Committee recommended that NSF move forward with the formation of the IT subcommittee taking into consideration the Advisory Committee's comments

concerning the subcommittee's charge and member selection. Greg Jackson has been appointed subcommittee Chair.

### **Ad Hoc Subcommittee on Funding and Governance of Future Major Multi-user Facilities**

Mark Coles (BFA) gave an overview of the motivation for forming the ad hoc subcommittee: there are a number of potential large research infrastructure projects in which NSF may participate as one of several international partners. These projects are so large that they may only be undertaken if the resources of more than one country are available, and the collaboration needs to be formed early in the planning process so that all of the partners can participate in research and development activities. The subcommittee was asked to examine NSF's current processes for engaging in these partnerships to recommend practices that would promote NSF participation while retaining its stewardship responsibilities. He introduced the members of the NSF internal organizing committee, and noted that over 50 people from the research communities and NSF attended and participated in discussions with the subcommittee.

Thomas Kirk then gave an oral presentation based on the report completed in March 2011 and sent to the Committee in April 2011.

#### *Background:*

- NSF formed an internal committee to discuss the need for the subcommittee. The subcommittee was discussed at the May 2010 B&O Committee meeting, and an ad-hoc subcommittee was organized (chaired by Tom Kirk).
- Subcommittee members included Dr. Howard Gordon (Brookhaven National Laboratory), Dr. Thomas R. Janecek (National Science Foundation), Dr. Thomas B.W. Kirk (Brookhaven National Laboratory- Retired), Dr. Paul Mantsch (Fermi National Accelerator Laboratory), Dr. Annick Pouquet (National Center for Atmospheric Research), and Dr. Philip R. Schwartz (The Aerospace Corporation).
- The subcommittee held an open meeting in October 2010, providing subcommittee members with a chance to interact with key members of the international scientific community. 35 invitees attended the meeting; they submitted comments in writing for accuracy.
- The subcommittee met in person in October 2010, with follow-up interactions via phone and e-mail.

#### *Activities of the Subcommittee:*

- The subcommittee's charge included the following questions:
  - Are current NSF funding mechanisms for planning, construction, and operation optimal for facilitating the participation of US scientists in large-scale international projects in which there is no single dominant entity?
  - What are lessons learned from governance of other large-scale international initiatives that could inform future Memoranda of Understanding (MoU's) to best protect NSF's interests while being equitable to other partners, and provide the greatest return to US science based on NSF investment?

- Activities of the subcommittee included the meeting with invited science committee participants; an executive meeting with NSF officers; report writing up a description of the activities; and finally, report submission to the B&O Committee. All work was contributed by the subcommittee members.
- Meeting discussions included the selection and prioritization of topics; funding mechanism and pathways; the logistics of planning and implementing partnerships; and infrastructure management and governance models. Other various topics, including ITAR, were discussed – these were mostly captured in the discussion section of the report.
- The presentation outlines some of the key points raised in participant meetings. Some areas of concern identified in the meetings include:
  - Closing of facilities that are no longer germane. The subcommittee concluded that NSF plans much better for facilities than closure. The subcommittee recommended that NSF think more about facilities closure activities.
  - Another subcommittee recommendation is for NSF to begin earlier in organizing who will be partners. Additionally, qualified Statement of Intents should show international partners' support for activity. People from science ministries in other countries wanted to know as soon as possible that there is an intent to pursue an idea – they would like to ensure integration of their own projects that may have a common purpose.
  - Discussions raised the notion that the concept of large-scale, cross-discipline science projects is not new, but the international scale of these efforts does not have many models to follow. For example, model of climate science and how it relates to global warming.

Subcommittee members have unanimously concurred on the contents of the report. On behalf of the subcommittee, Chairman Tom Kirk requested that the full B&O Committee receive and endorse the report to NSF management. The subcommittee further asked that the full Committee make the report publicly available, and available for public distribution, if it is accepted and endorsed.

*Committee Deliberations/Report Acceptance:*

The Committee voted unanimously to *accept* the report, and discussed whether it should also *endorse* it.

After some discussion, the Committee decided to add some commentary and observations on a cover letter when they submit it to NSF rather than expressly endorse the report.

Additionally, the Committee decided to submit the report to Amy Northcutt and Marty Rubenstein as Designated Federal Officials (DFOs). The DFOs can forward to the NSB, the Director or others in the agency as they deem appropriate.

## **Sensitive and Personally Identifiable Information**

A panel was convened to discuss NSF policies and employee responsibilities regarding sensitive and personally identifiable information. The panel included Dr. Dedric Carter, Andrea Norris, Marty Rubenstein and Dr. Judy Sunley.

- Dr. Carter is leading an NSF-wide working group in this subject area. The group is chartered to have its recommendations to the NSF Director by June 1.
- In general, NSF likes to save lots of data. What is to be done with archived information that is past its prime? There are trade-offs regarding mobility and security, controls versus flexibility. We will need clear policies that will make it easy for staff to comply and educate staff on best practices.
- Issues to consider:
  - What constitutes business sensitive information and how do we protect it?
  - How do we decide what information is sensitive? How do we get people to identify what is sensitive when they, for example, write an e-mail?
  - What data should be cleaned up and thrown away or deleted and after how long? How does the long-term view of tracking science outcomes play into this?
  - Data is stored in many places, some of which are not under NSF control. What responsibility and accountability should NSF staff have for offsite data and how might NSF enforce this?

Examples from Committee members:

- Retention policies for in a library/information science environment.
- Data covered by the Health Insurance Portability and Accountability Act (HIPAA) and the Family Education Rights and Privacy Act (FERPA) is highly protected at institutions. There are periodic training requirements.
- Some institutions require employees to sign a statement that they understand the information they have access to is sensitive. If they violate, share, or are careless, they can be terminated, depending on the circumstances.

## **BFA/CHCO Overview Presentations**

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

Marty Rubenstein, BFA Director and Chief Financial Officer, presented information on activities in BFA:

- Ms. Rubenstein updated the Committee on the FY 2011 Appropriations process. NSF just got its budget last month. We are still working on final allocations with OMB. The agency got nowhere near its request, but we were only 1% less than last year. Congress took reductions from the program side and left the administrative side alone.
- Update of the FY 2012: NSF continues to have bipartisan support in research science and technology. There will be more cuts to our appropriation that may impact us.
- A lot of our energy was focused on shutdown. Preparations began in March 2011. We dug up guidance from 15 years ago, because agencies were required to rely on

internal guidance for planning. One of the big decisions for NSF was whether or not we would continue to make payments. Ultimately, NSF decided that the agency would not be making payments. Another major focus was systems, email, BlackBerries – these technologies did not exist 15 years ago on such a scale as they do today.

- Finally, Ms. Rubenstein gave an update on dealing with the new NSF Director. We are seeing more changes in the direction of the agency. Not just changes to science programs, but changing the culture around how we are managing information. For example, the initiation of IdeaShare – an interactive system to elicit ideas and have conversations around issues. Communication has been an issue systemically for NSF.

### **CHCO (Chief Human Capital Officer) Overview**

Dr. Judy Sunley provided a summary of CHCO activities as related to the fall 2010 Committee recommendations.

- Communicate principles and values of personnel management widely: there is a statement upfront in NSF's strategic plan about core values. It is NSF's intention to have discussion with management of the agency about core values.
- Use performance management to hold employees accountable and improve communications: NSF's Director is increasing the focus on communication and improving how we communicate with one another. Setting expectations also fits with the recommendation on creating a robust performance management system. NSF has done a number of things around performance management. IPAs have been brought into the performance management system. Also, when looking at current performance plans, there is a great variety in the specificity of plans. NSF will be looking carefully at the differences between plans and determining how well plans enable managers to speak to performance.

**The Meeting continued on May 18, 2011 at 8:30 am**

### **State of the B&O Committee- Continued**

The Committee discussed increasing communication between committee meetings. Jeff Rich demonstrated the features of the new B&O Sharepoint site.

- Members' password will expire every 90 days
- Status update will be set up so members get a notice when new documents are posted.
- Demoed the collaboration site, asked for feedback on how the committee would like to provide comments on documents.
- No provisions for anonymous postings, not a public website.
- Subcommittees will have access to certain parts of the site only.

## **Consideration of Formation of a Business Systems Review (BSR) Subcommittee**

Florence Rabanal gave a presentation to support the Committee's consideration for the formation of a Business Systems Review (BSR) Subcommittee. The presentation gave an overview of how BSRs are conducted by NSF.

- BSR is an oversight activity of the agency done with the purpose of providing assistance to grantees. BSRs are part of NSF's advanced monitoring, whereby the agency uses a risk-based management approach to conduct BSRs of a small, targeted portion of the grantees.
- Dr. Rabanal reviewed timeline, who staffs the visits, report prep, etc.
- BSR is not an audit, rather it is an assurance of compliance, and chance to provide business assistance to our grantees.
- 17 BSRs have been conducted thus far, and there have been two previous B&O subcommittees relating to BSRs.
- Dr. Rabanal summarized the recommendations resulting from the two previous subcommittees, and addressed the Committee's current consideration of formation of another subcommittee.

Dr. Rabanal clarified that NSF uses a template so that comparisons can be made between facilities, that the agency works to educate SROs, that these awards are made to the institutions not to PIs, and that BSR reports not publicly available but available to NSF staff are helpful in decision making. There was additional discussion around how to incentivize performance and the use of performance metrics.

The Committee recommended that NSF move forward with the formation of a Business Systems Review (BSR) subcommittee.

Katy Schmoll (Committee) and Dick Seligman (Committee) have been asked to co-chair the subcommittee.

## **Consideration of Formation of a Subcommittee to Recommend Implementation of National Science Board (NSB) Recompensation Policy**

Mark Coles gave a presentation to support the Committee's consideration of formation of a subcommittee to recommend implementation of the NSB recompensation policy. Dr. Coles reviewed the NSB statement on recompensation and management reviews, and then presented an overview of how the subcommittee would be formed, including the subcommittee composition, criteria for participation and process matters.

Dr. Coles further highlighted when each of the facilities awards would expire, and thus when the subcommittee's work would be useful. NSF wants to create a subcommittee that would provide expert advice on how to implement NSB recommendations, inform on recompensation and strengthen NSF stewardship.

Committee comments on Dr. Coles's presentation included suggestions that the subcommittee membership be representative of various facilities' disciplines, and that an economist should be considered. The Committee also decided that a best practice would be to have a B&O liaison for each subcommittee.

The discussion resulted in the following recommendations from the Committee:



- a) Very ambitious charge and there is a concern that the subcommittee cannot achieve all the items in the charge. Recommend that the items be prioritized in order to maximize the likelihood of accomplishment. The charge should reflect more reasonable expectations of what can be accomplished in the time allotted and with the number of people on the subcommittee.
- b) It is recommended that the charge be modified to address the perception of the complexity of the topic. This can be accomplished by simplifying the charge with the longer list of questions repositioned as an attachment or appendix that follows at the end of the charge.
- c) In order to put the subcommittee work in context, it is recommended that the subcommittee should be presented an analysis of what has happened in past competitions as the basis of current recommendations (similar to how the National Research Council of the National Academies conducts a study).

The Committee recommended that NSF move forward with the formation of the Recompetition subcommittee taking into consideration the Committee's recommendations.

#### **Suggested topics for November 2011 agenda**

- Review use of SharePoint as collaboration tool
- Report on NSF relocation
- Several human capital issues (rotators and assimilation/integration, turnover in senior administrators, results of close term survey and the high percentage of NSF positions with "Acting/Interim" in their titles)
- Status of the recommendations from fall 2010 meeting (branding) -- if brand was stronger there could be impact on OMB in considering budget (budget influence)
- Role of B&O to mine existing data that NSF has (e.g., linkages with historical trends)
- Update on subcommittees
- BFA draw downs (grant by grant v. pooling)

#### **Committee Discussion with NSF Acting Deputy Director, Dr. Cora Marrett**

Dr. Marrett opened by emphasizing the importance of this Committee for all of the Foundation, and that what the Committee does is important across the organization.

Dr. Marrett had the following comments on NSF strategic plan goals as they relate to NSF operations:

- Transform the frontiers
- Innovate for society
  - Not just talking about those whom NSF funds, but how does NSF seek to be as innovative in its own processes as possible.
- Perform as a model organization
  - How are our NSF's business operations working in terms of efficiency and effectiveness?
  - NSF needs effective internal and external communication systems.

Dr. Marrett also expressed appreciation for the Committee's attention to research infrastructure.

The Chairs presented a general recap of the meeting and emphasized the following:

- The *Report of the Ad-Hoc Subcommittee on Funding and Governance of Future Major Multi-user Facilities* has been accepted by the Committee. It will be shared with the Acting Director of OIRM and the Director of BFA.
  
- The Committee recommends that NSF move forward with the formation of three subcommittees, each with a member from the Advisory Committee for Business and Operations:
  - Information Technology Subcommittee, to be chaired by Greg Jackson.
  - Business Systems Review Subcommittee, to be chaired by Dick Seligman and Katy Schmoll.
  - Subcommittee Concerning Implementation of the National Science Board Recompensation Policy, with Devon Streit (DOE) serving as B&O Committee liaison.

Each will submit an interim report in the fall and a final report at the spring 2012 B&O meeting.