National Science Foundation
Advisory Committee for Business and Operations
Fall 2017 Meeting Minutes
December 6-7, 2017

Attendance:

Benjamin Brown	Program Manager, Department of Energy
Lee Cheatham (Dec 6 only)	Director, Office of Technology Deployment and Outreach, Pacific Northwest National Laboratory
Robert Dixon	Interim Provost and VP for Academic Affairs, Cheyney University
Adam Goldberg	Director and Executive Architect, Department of Treasury
Charles Grimes (co-chair)	Retired COO, U.S. Office of Personnel Management
Michael Holland	Executive Director, Center for Urban Science and Progress, New York University
Ned Holland	Retired Assistant Secretary for Administration, U.S. Department of Health and Human Services
Jan Jones	Retired Federal Senior Executive, United States Capitol Police
John Kamensky	Senior Fellow, IBM Center for the Business of Government
Alicia Knoedler	Associate VP for Research, Director of the Center for Research Program Development and Enrichment, University of Oklahoma
Rachel Levinson	Executive Director, National Research Initiatives, Arizona State University
Kim Moreland	Associate Vice Chancellor, Director, University of Wisconsin- Madison
John Palguta	Retired Vice President for Policy, Partnership for Public Service
Theresa Pardo	Director, Center for Technology in Government, University of Albany - State University of New York
Susan Sedwick (co-chair)	Senior Consultant, Attain, LLC
Dave Spencer	Chairman, WTe Corporation
John Tao	President, O-Innovation Advisors LLC
Joe Thompson	Retired Undersecretary for Benefits, Department of Veterans Affairs
Pamela Webb	Associate Vice President for Research, University of Minnesota
Doug Webster	Director, Government to Government Risk Management, US Agency for International Development

Wednesday, December 6, 2017

Welcome/Introductions/Recap

Susie and Chuck welcomed everyone to the meeting, including two new members, Dr. Ben Brown and Dr. Robert Dixon. All parties introduced themselves. Joanne Tornow presented the departing member, Joe Thompson, with a certificate of thanks and a memento.

Susie thanked Patty Balanga, Brittany Eason and Joan Miller for pulling this meeting together in the new building. Susie noted the copy of recommendations from the Spring 2017 meeting in the meeting packet.

BFA/OIRM/OLPA Updates
Presenters: Teresa Grancorvitz, BFA, Joanne Tornow, OIRM; Amanda Greenwell, OLPA

Teresa noted that Marty's retirement resulted in several interim appointments in BFA: Teresa is Acting CFO and BFA Office Head, Michael Sieverts is serving as Acting BFA Deputy Office Head (and has

announced his upcoming retirement), Tony DiGiovanni is Acting Budget Division Director, and Mace Barron is Acting Budget Division Deputy Director. Other updates:

- BFA has achieved its 20th clean audit opinion for 2017, with no material weaknesses or significant deficiencies noted for this year.
- The BOAC Subcommittee evaluating NSF's enhanced cost surveillance policies and procedures has begun work and plans to deliver a final report to the BOAC in the summer of 2018.
- GAO has begun a review of NSF major projects and plans to report in the spring of 2018.
- GAO issued its audit report and recommendations on NSF's Indirect Cost Rate Setting Process.
- NSF is working on DATA Act requirements with internal and external groups to discuss issues and improvements in digital data accountability and transparency.
- NSF issued its GONE Act report, noting no balances on awards still open (primarily due to late technical progress reports).

Joanne noted OIRM staff changes: Dorothy Aronson has been appointed NSF's CIO, and Dan Hofherr, has agreed to serve as the acting Division Director, Information Systems, vice Dorothy. Other updates:

- Joanne thanked Brian MacDonald, Donna Butler, and BFA senior leadership for the successful completion of NSF's relocation, on time and within budget.
- NSF's new headquarters building has enhanced its security posture, now meeting or exceeding the Interagency Security Committee requirements for a facility and staff of this size.
- NSF's 2017 Federal Employee Viewpoint Survey scores continue a five-year trend of increases in key indices of Employee Engagement, Inclusion, and Global Satisfaction.
- NSF's Human Capital Services ranked #1 in customer satisfaction in recent GPRA/PMA benchmarking, IT Commodity Services ranked #2, and Real Property Services ranked #3 among the 24 CFO Act Agencies.
- 2017's Federal Information Security Management Act (FISMA) report was submitted to OMB and DHS, and NSF had no significant deficiencies, continuing a 13-year trend.

Amanda noted OLPA staff changes, introducing Rob Moller, Team Lead in the Congressional Affairs Group, and remarking that Kim Nelson would speak about external affairs during the December 7 session. Amanda gave an overview of the office, calling out OLPA's goals: broaden awareness and understanding of NSF; communicate NSF's vital mission; highlight NSF success stories; strengthen NSF's brand and image; and leverage the expertise and credentials of NSF's leadership. Amanda reviewed OLPA's strategic communications plan, and pointed to a number of successful communication events and strategies, including having over 1 million followers on Twitter.

Amanda discussed the NSF budget prospects, noting that the current CR expires at midnight Friday (December 8), with a likely short-term CR expected through December 22. The Director testified in front of the House Appropriations Subcommittee, and members went on record on both sides in support of NSF.

Subcommittee on NSF's Strengthened Oversight of Large Facility Cost Surveillance
Presenter: Kim Moreland

Kim, the BOAC liaison to the subcommittee, provided an update on the subcommittee, noting that it includes representatives from private consulting groups, universities and federal agencies. The agenda for the initial meeting on December 18 is included in the meeting packet. The subcommittee's charge is to evaluate NSF's strengthened cost oversight procedures for large facilities. Neil Albert will chair the subcommittee. In developing its report, the subcommittee will be looking at case studies for the Regional

Class Research Vessel and NEON. The subcommittee plans to submit its report to the BOAC on June 30, 2018.

Shared Services: Best Practices and Case Studies
Presenter: Theresa Pardo
Discussant: Adam Goldberg

Theresa provided a formal presentation on shared services, noting that the Bergeron Framework (2005) is the most cited Shared Services framework, and that it is focused on back office operations. Few of the extant models focus on shared services in the public sector or on mission critical processes.

Adam gave a brief history of shared services in the public sector. OMB Circular A-130 encouraged cross agency cost sharing services in 1990s. However, many are unraveling because it isn't necessarily easy. Budget constraints are organically pushing agencies like NSF in the shared services direction, and shared services can be more successful in smaller agencies. NSF is a consumer, not a supplier, of shared services to begin with. Shared service implementation is a big investment with big risk.

General discussion on shared services followed, with specific reference to the subjects below for which NSF is seeking advice.

Best practices and lessons learned relating to shared services

Find a provider that works. Entering a shared service arrangement expecting it to be customized for the user is a recipe for failure.

One of the goals of a shared service failure in DOD was an attempt to bring commonalities to hardcore requirements and the processes followed, without regard to barriers difficult to overcome, like legal differences.

In Maine, a decision was made that technical support, library services, and HR would be consolidated across seven (7) state schools. Many jobs were lost when functions were centralized, and response times lengthened. The one area where consolidation worked was in library services because they had already been cooperating with each other. So, there is a human side to all of this and if you are acting only along the lines of saving money there will be pain on the human side. Better to look at how an agency can be more effective – maybe there is a way that displaced people can make the organization more effective.

Treasury is looking at (ro)bots as a way to achieve savings. In the context of shared services, these are fairly low risk and high return, and should be considered, in conjunction with exploration of shared services, to automate interactions with systems.

Create a center of excellence for implementing/employing shared services to determine what we should be doing ourselves or find someone else to do it.

Better understanding of the drivers pushing organizations towards shared services and how they may or may not align with organizational priorities

Set expectations for shared services:
- Assert priorities and what you want to accomplish.

- Shared services is not always a way to save money – focus needs to be on doing things better.
- Keep Project Management Principles in mind - Scope, Schedule and Budget, aka Cheaper, Faster and Better. Must understand that you will probably only get two of the three.

Focus on adding value to the whole as a result of the efficiencies gained through Shared Services.

Volunteer before you are told. Start simple and build a foundation.

Requirements at all levels are paramount for success. The political will of the providing agency has to be assessed if you are considering entering into a shared service arrangement because in this environment of scarce resources, heads of provider agencies may be reluctant to devote further resources to shared services.

In this budget climate, shared services may make more sense for smaller agencies, particularly with regard to commodity services, like invoicing, that are common and repeatable with fairly consistent rules, and with low cost of entry. Travel may be another area. HR services could also be shared services. From there, over time, one can pursue business lines, like grants, based on the experience gained in commodity areas.

Look for opportunities where NSF can coordinate specialization of its business practices with the specialization of another agency's business practices in a way that makes both agencies better off. A financial benefit for shared services doesn't necessarily assure success, but an alignment of joint interests would seem likelier to result in long-term, stable partnership of mutual benefit. Recognize that "shared services" extends across the scope of NSF activities.

Useful resources (e.g. guidance, training, learning communities) for selecting, planning, and implementing shared services

Ask critical questions. What shared services strategies would have the most impact without increasing risk to mission? What more do we need to know to help us what to choose? How to evaluate? What are the metrics to be taken into account when considering different shared services strategies? How do we measure the impact in terms of policy/program for service delivery vs. cost savings? What to expect? How do we think about drivers toward shared services?

The services vs. center vs. user distinction is important because their multiple perspectives need to be considered.

There are multiple models for shared services: internal shared services, outsourcing, fee-for-service.

Coordinated governance is very important but typically under-emphasized, increasing the risk of failure.

Continuums of conversation that are important to consider: back office operations and/or mission critical services? Generic vs. customized approaches? How and in what way do context characteristics matter? Business case vs. public policy? Big bang (big difference quickly) approach vs. incremental (opportunity to learn)? Workforce perceptions/implications? Context-specific critical success factors –what makes something work in one place is very different in another. Cost?

<u>Enhancing our understanding of the characteristics of processes/functions that lend or do not lend themselves to shared services (at multiple levels)</u>

Challenge is how to merge different priorities or combine entities that have different cultures and values.

Large agencies may do shared services internally between units.

Make shared services providers in the government the logical entities: Treasury, OMB, GSA and OPM.

Don't get too complicated. Shared services is simply doing things logically in a centralized manner that are being done in multiple agencies. Consolidate back office functions where it is cost effective.

Software as a service is worth considering but is not really a shared service.

Recently there has been a pilot collecting delinquent debt with Department of Education to see who could do it most effectively. The Department of Education gave Treasury a portfolio of debt to work on. Lesson from that pilot is that services can't be made generic because the population with which we are interacting has to be taken into consideration.

Meeting with Dr. Ferrini-Mundy

Dr. Ferrini-Mundy is pleased to be at the meeting in place of Dr. Córdova, who is currently attending the Nobel Prize awards. She noted that the breadth and depth of experience of the committee has been invaluable, and expressed her appreciation for the committee's work.

Regarding the current environment, recent developments from LIGO are a stunning example of the result of NSF sticking with what was once considered high-risk research. Congress and the administration continue to be supportive. NSF is delighted to be in its new space. The Director has been very active since the last BOAC meeting. She was a representative at the G7 where NSF was working with the Administration to ensure that science was well-represented in the international arena.

NSF continues to plan and move ahead in FY 2018. Directorates have been instructed to move ahead with the 10 Big Ideas, critical to keeping up the community's confidence in NSF. In August, there were 23 awards that were made in 4 areas related to the Convergence of Research. Dr. Ferrini-Mundy is pleased to be on the verge of appointing Chief Officer for Research Facilities and a large facilities governance board.

Theresa Pardo and Adam Goldberg provided insights from the enlightening Shared Services discussion, noting that a critical success factor for going forward with shared services is semantic clarity with regard to mission-critical or mission-specific vs. back-office. The question is not "either or" but "if and when" and in what way. The general consensus is that moving to shared services makes sense. Given political pressure, volunteering to do it in the areas that make the most sense for NSF is better than being told to implement. Dr. Ferrini-Mundy anticipates conferring with the BOAC on this topic more in the future.

In response to a question about the state of science and mathematics education in our nation, Dr. Ferrini-Mundy responded that this is of longstanding national concern. There has been a lot of attention in recent administrations, which is encouraging. And though there are pockets of very successful activity in this area, there are also some extremely disturbing situations where diversity in classrooms is not being used to great advantage and teachers are not equipped to differentiate among students and bring them all

along. NSF needs to pick the pieces of the educational landscape where the differences we can make are especially relevant. How do we create subject matter opportunities that are engaging to kids? The nation as a whole has a ways to go to get where it should be.

In response to a congratulatory comment about the NSF's improving FEVS scores, Dr. Ferrini-Mundy recognized the challenge that maintaining performance in this area takes constant vigilance, and she welcomed the BOAC's input on areas where NSF might not be as strong as it could be.

There was general discussion about large facilities oversight, including the subcommittee on large facilities oversight and the GAO audit on large facilities. Dr. Ferrini-Mundy noted that if there is a way to sync up the work of the subcommittee with the work that GAO is doing that would be extremely helpful.

[After the discussion with Dr. Ferrini-Mundy concluded, the BOAC continued its discussion.]

There was some discussion that the short conversation about shared services may have given an overly optimistic view of moving forward with shared services. Joanne shared that Dr. Ferrini-Mundy is aware of the context. Others noted that NSF's proactive stance in trying to control its own agenda is where NSF has been successful in the past and that Adam Goldberg's advice to identify the areas it could make progress in would serve it well. Opportunities for standardization could make shared services work better. The last word was that doing better does not always trump cheaper - it is really a question of value. Doing something cheaper so resources can be redeployed in areas that would bring greater value is an important question to consider.

Thursday, December 7, 2017

Update: Committee on Equal Opportunities in Science and Engineering (CEOSE)
Update on CEOSE activities
Presenter: Alicia Knoedler

Alicia gave a summary of the 2015-2016 Biennial Report to Congress which recommends the development of an accountability framework that emphasizes the joint responsibility on the NSF, the principal investigator(s) and the recipient institution for broadening the participation in science and engineering.

Strategic Coordination of NSF's Participation and Outreach with External Organizations
Presenter: Teresa Grancorvitz, BFA; Panelists: Kimberly Nelson, OLPA, Jeremy Leffler, BFA/DIAS, John Sholhead, BFA/DFM
Discussant: Rachel Levinson

Teresa noted that outreach is fundamental to the NSF mission. The questions are how to balance programming with available resources and staffing and making decisions with respect to outreach to specific external organizations.

Kimberly presented an overview of the many ways OLPA reaches out to scientific communities, highlighting NSF Days, the purpose of which is to increase science literacy of cohesive and consistent messages. NSF Days have now been conducted in all 50 states and at scientific societies and associations.

Jeremy discussed policy office outreach through the biannual NSF Grants Conference and research administration conferences. The audience is a mix of early-career faculty/researchers and research administrators. NSF is more fully employing virtual presence techniques at smaller conferences and in person presentations for larger audiences. Webinars are available for on-demand use after the conference concludes.

John noted the importance of getting the message out to as many grantees as possible to ensure good outcomes. Strategy has been to realign staff duties with NCURA regions, thereby leveraging the ability to conduct outreach to universities in the general vicinity of the conference and maximizing attendance and the number of universities "touched."

Discussion followed regarding the impact, quality, opportunity, and technologies for outreach. In response to a question about the need for enhanced outreach, presenters noted the importance of reaching the international community and the desire for grantees to be compliant, avoid unallowable costs and audit issues, and avoid cancellation of funds – outreach is money well spent. Members noted the need to be able to justify these expenses before Congress and suggested taking a return on investment approach to outreach with regard to various stakeholders. Outreach should be measured against its overarching goals (receptive to community concerns, grantees successfully handling federal funds) through associated metrics.

The Foundation should review its coordination and outreach strategy through the lens of the Foundation's enterprise risk management process. Such an exercise can identify additional targeted outreach opportunities for high risk areas.

Renewing NSF
Presenter: Erwin Gianchandani, NSF
Discussants: John Kamensky and Joe Thompson

Erwin summarized the FY-19 Budget timeline and high-level implementation strategy and efforts toward accomplishing four broad priorities: making technology work for us, adapting the NSF workforce to the work, expanding and deepening public and private partnerships, and streamlining, standardizing, and simplifying programs and processes. Primary considerations are engaging the workforce in the process and identifying metrics and milestones using project management principles.

BOAC members suggested assuring that the leaders of the four steering groups are prominent. Make sure to have an integrator so the four groups don't operate in silos. Don't forget about Drucker's warning - culture eats planning for breakfast. Leverage the communication strategy used for the relocation as a means of engaging the NSF employees through internal communication. Keep in mind that employees value mastery of their jobs, autonomy, and purpose. Keep the focus on mission outcomes: how do activities support the mission. Challenge progress with a stringent timeline.

Others asked how change management is being handled, and Erwin noted that leadership is cognizant but would welcome advice from committee members. Some suggested making it easy for industry to come to NSF. Consider change fatigue – NSF has gone through a lot of change (move, new financial system).

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Results from 2017 Federal Employee Viewpoint Survey (FEVS) and Maximizing Employee Performance
Presenter: Joanne Tornow, OIRM and Dianne Campbell, OIRM
Discussants: John Palguta and Jan Jones

Joanne reviewed the findings of the 2017 FEVS, noting the high response rate (76%) and NSF ranking of 4th for employee engagement and 5th for inclusion quotient among medium-sized agencies. No areas were identified as challenge areas (35% rating or below). There were significant increases in the area of supervisor/employee relationships. Training needs are being met. Workload remains level, and performance management and recognition, and career development are trending upward. NSF scores are tracking ahead of the governmentwide average. NSF is making this information available broadly.

John noted lots of good news, and no real bad news - but there are some areas of opportunity (e.g. dealing with high workloads). The high response rate indicates employees believe leadership will do something with their input. In the Best Places to Work (BPTW) rankings, compiled by the Partnership for Public Service based on the FEVS data, NSF improved again in the rankings. NSF went from number 10 in 2016 to number 9 out of 25 mid-sized agencies in 2017. This improvement occurred in a year with a major move and that is particularly commendable.

John also noted that it will be hard but not impossible to maintain this progress. The FEVS data does not provide all the answers that management needs but it does provide some of the questions to ask. Past experience shows that if you ask sincerely for employees for input in improving the workplace and mission effectiveness, they will give it. Keep the mission in mind in all decisions and make sure employees understand the importance of their individual role in making that mission happen. Providing assistance to managers, as needed, in how best to engage with their employees in discussions over further improvements could be helpful. Avoiding complacency and striving for continuous improvement will be key.

One area of emphasis for this administration is going to be on employee performance, particularly poor performance, and opportunities for improvement in this area are available. Supervisors may need help in making distinctions between performance issues and conduct issues since there are separate standards of proof for defending those actions should an employee appeal a disciplinary action. Supervisors and managers also need to treat performance management as a process of goal setting at the beginning of the rating cycle, continuous communication and feedback during that cycle, employee development, and an opportunity to improve employee motivation and engagement. What performance management should not be is a once-a-year conversation in which a summary performance rating is assigned. Training should include teaching managers how to give and receive feedback, employees how to manage up, and for all how to acknowledge and deal with unconscious bias.

Committee Business/Wrap Up
Discussants can send their notes to Jeff or Charisse.
There was discussion regarding the start time of the second day of BOAC sessions. The general feeling was to leave the start time at 8:00.
Teresa announced the Presidential Rank Award winners at NSF: Michael Sieverts and Dr. Ferrini-Mundy.

Adjournment
The meeting adjourned at noon.