National Science Foundation
Advisory Committee for Business and Operations
Summary Minutes and Recommendations for May 29-30, 2008

On behalf of the Advisory Committee for Business and Operations, this serves as our acceptance of the attached Summary Minutes and Recommendations for the spring Committee meeting held on May 29-30, 2008.

Discussion of possible agenda items can be found under the Committee's wrap up and final discussion notes at the end of these summary minutes. Numerous topics were discussed for consideration, however, the Committee recognizes that there is a limitation to what will be included in the agenda for the Fall 2008 meeting depending on the priorities of NSF and as time permits.

The Committee appreciated the opportunity to provide advice and recommendations for NSF's business and operations.

Signed on September 8, 2008

Tom Kirk   Mary Ellen Sheridan
Co-Chair   Co-Chair

Committee members in attendance:

Tom Dausch	Management Concepts, Inc.
Sharon Dawes	Center for Technology in Govt., SUNY, Albany
Mike Gooden	Integrated Systems Analysts, Inc
Philip Joyce	George Washington University
Tom Kirk	Brookhaven National Laboratory (retired)
Mark Luker	EDUCAUSE
Sally Marshall	Human Resource Solutions
Gloria Rogers	ABET, Inc.
Katy Schmoll	University Corporation for Atmospheric Research
Dick Seligman	California Institute of Technology
Mary Ellen Sheridan	University of Chicago (retired)
Carlos Vargas-Aburto	Kutztown University
Don Worden	Training Consultant
Beverly Hartline *	Delaware State University

* Liaison from the Committee on Equal Opportunities in Science and Engineering

Committee members absent:

Jake Barkdoll	Consultant
Mort Rahimi	Northwestern University
Mildred Smalley	Southern University and A&M College (retired)

Meeting commenced at 1:00 pm on Thursday, May 29, 2008

Human Capital Strategic Plan Overview ~ Kathryn Sullivan, Senior Advisor, Office of Information and Resource Management

Kathryn noted that the Human Capital Strategic Plan constitutes the framework for managing the National Science Foundation's (NSF's) human capital system through 2011 to ensure that NSF's human resources are utilized effectively and that they support the Foundation's vision and mission.

This Plan identifies internal and external factors that shape human capital planning and creates an integrated framework of policies and practices that will guide the Foundation in meeting our workforce needs and enable NSF to excel as an organization. The Plan takes a strategic approach—both in terms of identifying the human capital challenges facing the Foundation as well as how best to maximize the vitality and capabilities of NSF's workforce at all levels. Drawing from the Plan's interdependent goals and the more focused workforce and succession planning action strategies, NSF's individual directorates and offices will be able to develop organization-specific human capital implementation strategies. Examples of areas to address include procuring top talent, recruiting and retaining a dynamic and changing workforce, ensuring organizational stability, managing knowledge rollover, and increasing professional development and training activities for employees (e.g., creating career ladders, developing competencies).

The Plan is intended as a "living" document—one that accommodates changing environments and needs as they arise.

The Committee was impressed with the Plan and that it is aligning human capital concerns with the larger Foundation strategic plan. There were a number of questions and comments brought up by the Committee related to the Plan:

- Not much in the Plan about employee development: The strategic plan goals that refer to learning have embedded into them how NSF trains employees to do their current job or a future job that management would like to see. NSF thinks that if it has a well trained staff that they will have acquired the skill set they need and will feel they are making a contribution. Overall, staff feels positive about working at NSF-- job satisfaction and retention rates are generally high---we are looking to do even better.

- Losing NSF staff: concerns were noted that more employees were leaving rather than coming into NSF. Over the last 5-6 years, the % of permanent staff that has left NSF has remained relatively constant. NSF's average is higher than average due to its age demographic and the number of employees retiring/eligible to retire. The concern is mitigated somewhat due to NSF's high retention rate, but the problem is being addressed through the study of new retention tools and policies.

- Achieving knowledge transfer goals: Methods to address knowledge transfer at NSF include normal employee-to-employee interaction and back-ups; using technology as a knowledge transfer tool via knowledge banks, databases, instructions videos and other tools; having employees create a formalized "portfolio" as soon as they come on board which can be updated throughout a career and then passed on when they leave; and utilizing "overlapping," a practice where NSF brings people back on short interim basis to bring new people up to speed.

- Proposal growth greater than staff growth: this phenomenon over the last several years is driven both by recruiting and budget (lack of) issues. The budget has improved in FY 2008, which will help. In addition, NSF is trying to manage the hiring "float" more aggressively, to reduce time gap between losing someone and hiring a replacement.

BFA Human Capital Planning ~ Tom Cooley, BFA Director/CFO

Tom Cooley presented BFA's early efforts at forming a cohesive Human Capital plan and indicated that it will hopefully prove useful as a model for other organizations at NSF. He indicated that it is the perfect time to take a hard look at this and present the plan to the Committee. This is an opportunity for the Committee to make an evaluation and determine whether or not a mid-course correction is needed, especially since the plan is a work in progress. During his presentation, he laid out the rationale of the plan and posed questions for the Committee:

- BFA needs to look at the workforce of the future, today and yesterday. There are interesting dichotomies between people of prior generations and the generation coming up who do not want to be "stove piped" into narrow job families/categories. Rather, new employees want to be challenged at different levels in different ways that allow them to take advantage of their multi-tasking skills and knowledgeable about technology and internet tools.

- The Human Capital Plan (HCP) is in some sense a strategic plan/vision for the Foundation. The next level is the implementation plan, which is much more difficult to undertake. This plan should also address the importance of a diversity plan, but should not simply focus on justifying new staff FTEs in the budget. BFA needs to focus on the purpose of the individuals who are here now and will be needed in the future, and then show how to link everyone to NSF's mission.

- BFA funds are put into training (to the extent funds are available), travel, and services (e.g., computers). Travel provides context to employees and gives them a first-hand look at what the NSF is all about and to identify with the agency's mission. The top three reasons people leave is that they (1) do not fit in or feel comfortable with organization's culture; (2) they laterally move to a new position outside the agency or take a promotion; and (3) retirement. The Foundation's biggest challenge is acculturation and making employees feel committed to mission and goal. If the link to our mission is clear to staff, then hopefully all employees will understand why we are here, why we do what we do every day, and why it is important to the nation.

- It is difficult to know exactly how many FTEs are needed at any given moment. However, when you implement a plan like this from the ground up and very systematically move forward, then the results will hopefully inform 2011 budget considerations. Using this plan, we should be able to make the case about how many people we will need, where we need them, what office (or rather who needs them), and how we will deal with turnover.

- Employees need to have opportunities to try out new things and to excel to new positions. BFA must focus and move forward with the people we have here today – empowering people that are here now to improve and move up professional ladders.

- There are always legislative mandates, but you cannot foresee or predict these. There are existing requirements that change, and therefore end up requiring more staff resources than

originally anticipated, which usually makes life more difficult. Contract specialists are in dire need; workload in grants and cooperative agreements is getting more complex; retirement is an issue with 6-7 retirees per year in BFA.

▪ BFA recognizes that the HCP needs to be a living document and plans to set a constant six month 'moving target' or review for re-prioritization. The plan should ideally be refreshed every six months to deal with new needs, new legislative changes, etc.

▪ NSF has spent significant efforts servicing the outside community. Thoughts behind this plan are that we need to readjust and balance staff roles and responsibilities so that we also address the needs of people inside the building, not just the academic community outside.

Tom indicated that the draft plan will go out to all BFA staff before it is finalized and would like to bring this back to Committee at the Fall meeting. Questions were posed for the Committee to consider: How do we move the Foundation forward through these plans and where should the focus be? How often do we need to update the tools/resources that staff needs to do their job effectively since technology plays a role in the type of positions needed? How does our plan react to changes and the long budget process?

The Committee commented on the in-depth analysis covering a lot of areas that will require more thinking – they would like additional time to "dig in" to the topic. It was noted that BFA provides a wealth of institutional memory for the Foundation.

One of NSF's great strengths has been its use of rotators, and it was asked whether that type of approach might be applicable for BFA. Tom responded by indicating that the use of IPAs has traditionally been in the scientific field and that BFA hired its first IPA recently. The issue for BFA is not having the strength or depth of people to implement the concept more broadly. Bringing in someone new requires a significant amount staff resources to train the individual, who will only be with BFA on a temporary basis. BFA does not have enough full-time staff to handle this additional workload to support rotator training because of other demands in their jobs. However, BFA is open to any ideas that are a natural and realistic fit.

The Committee liked the idea of taking one organization (BFA) and seeing how the HCP is implemented there first. The Committee questioned how the plan would be rolled-out to the rest of the Foundation. Tom Cooley indicated that he had spoken with Dr. Olsen (NSF Deputy Director) about BFA's work in progress and the idea that it will serve as a basis to build tools that might work in other areas of Foundation. The first steps would be to work with Assistant Administrators and to brief senior management, then try working it with one research office to see what should be added and tweaked… perhaps all over an 18 month period so see what can be effected by the 2011 budget planning process – next May or June.

The Committee appreciated recognition that there is a changing workforce and technological advances that are changing the types of positions needed. The Committee questioned whether productivity should be included as part of the study. For instance, how technology can be used to increase the efficiency of the staff such that if the NSF doubles its grant load, it will not have to double the size of BFA. Tom responded that everyone inside the building has always been looking to streamline processes. Forms are automatically populated for instance. There is a thought process

about how systems change. When you move systems to change things you enable them to do many of the routine things that most individuals in the past have done. Systems have come to handle routine things. This has enabled higher grade more complex jobs to be utilized. Another suggestion was for BFA to be able to tie career development with increased productivity and new and more effective tools and technology.

The Committee further commented that the FTE situation may warrant presentation of a specific case to Congress. How do you approach this? Anthony Arnolie answered that a year ago we analyzed workload across the NSF, which included looking at number and types of proposals. At that time, it was determined that 212 FTEs would be needed to address the increased volume and complexity of proposals anticipated. This includes proposals on larger facilities and those that are interdisciplinary in nature, etc.

In summary, the Committee Chair, Mary Ellen Sheridan, asked how this process was proceeding in BFA. Did Tom have a working group? How would Tom like the Committee to give a response? Tom indicated that he would be the single point of contact for the Committee's feedback.

Tom Cooley opened the next morning's session by asking that the Committee provide comments to the BFA Human Capital Plan by June 30. He plans to incorporate the Committee's comments into the plan and have an open comment period until Labor Day. The plan will then be re-visited at the fall Committee meeting.

FY08 Budget Implications and FY09 Budget Highlights ~ Tom Cooley, BFA Director/CFO

Tom Cooley gave a short presentation concerning the FY 2008 budget outcomes and details concerning FY 2009 budget request and highlights. Although for NSF, the FY08 budget outcome was not encouraging, there was good news with the AOAM account (salaries and expenses). Discussions by the National Science Board and NSF Director with the legislators paid off. There is a possible $200 million supplemental bill with Congress, but no guarantees.

NSF is proposing a different algorithm in FY09 to support system development with program funds. The FY09 request is for $6.85 billion, which represents a 13% increase. NSF remains hopeful, but there are no guarantees and delays are expected in passing the appropriation bills because of the presidential election in November.

There were no Committee comments on the budget presentation.

OIRM Updates ~ Anthony Arnolie, OIRM Director

Human Capital Initiatives

- Administration Functions Study (AFS): This pilot, which began in October 2007, has passed the 6-month milestone. Already, the four directorates participating have helped in determining nature of work and career path interests.

- Telework: There has been a gradual increase in telework agreements each year. In Summer 2008, NSF will launch Access NSF, which is an enhanced remote access tool for easier intranet and desktop pc accessibility.

- New Executive Transitions (NExT) Program: OIRM plans to launch the NExT program this fall. This program will expand NSF's executive capacity by quickly and effectively integrating new members into the executive corps with the help of an innovative, integrated transitioning program.

- New Employee Welcome (NEW) Program: To streamline the process for new employees, OIRM is revamping this program by offering forms electronically and leveraging multimedia to provide a well rounded picture of NSF.

Surveys

- 2007 Customer Satisfaction Survey Results: Overall satisfaction was essentially unchanged from 2006. The greatest areas of improvement included FedTravler, guest travel, email, and permanent recruitment. The areas requiring further review include help desk responsiveness, quality and quantity of learning opportunities, and facilitation of organization meetings.

- NSF Panelist Survey: OIRM will launch this survey in July 2008. Panelists who take part in the merit review process will be asked for feedback on travel reservations, conference rooms, laptop usage, access to proposals, badging, and overall quality of services.

Information Technology

Research.gov / Reviewer Management Services: The reviewer management initiative seeks to improve the identification, selection, assignment, and tracking of individuals. OIRM received feedback from directorates early this year and more activity will be taking place in the coming months. Directorates identified the following services as top priorities:

- Improve quality and usefulness of reviewer and proposal information
- Find qualified reviewer via NSF information
- Find additional qualified reviewers via external information sources
- Keep reviewer information current
- Check for Conflicts of Interest

NSF Outreach

- GotGreen?: This is a new campaign scheduled to begin Summer 2008 which will allow NSF to become a model Green Federal agency.

- Taste of Science/Taste of Arlington: This is the 7th year that the Taste of Science in conjunction with the Taste of Arlington has been running. NSF directorates, exhibitors, and the community play an active role in this outreach project where children of all ages can explore math and science exhibits.

Committee Discussion – Preparation for Discussion with Director

The Committee discussed top areas to address with the NSF Director. These areas included cost sharing, limitations on proposal submissions, status of the BSR program, feedback on stewardship

results from last year, and the future direction of NSF based on the upcoming change of administration.

It was noted that the Committee made a call to Dr. Bement last year to work on the Agency Operation and Award Management (AOAM) budget. The Committee can see a change and wanted to express their gratitude for the efforts that made this possible.

The Committee also wanted to make a positive comment towards the human capital initiative plan. It was discussed that this is the first comprehensive plan that involved NSF, at all levels. It was noted that Dr. Olsen briefed the NSB on the human capital plan, which was positively received.

Committee Discussion with NSF Director, Dr. Arden Bement

Dr. Bement began with introductions. He updated the Committee on the following areas:

- Budget: NSF was able to sustain the AOAM budget for 2008. However, the appropriation for 2009 will most likely not be here until March next year. Congress will be looking at NSF's performance results and quality measurements, which will determine our budget success.

- Broadening Participation: This is essential in educating the next generation and should encompass not only minorities and women, but regional and institutional participation.

- Major Research Equipment and Facility Construction (MREFC): Projects are performing well. However, the Atacama Large Millimeter Array (ALMA) is over budget and the Scientific Ocean Drilling Vessel (SODV) is over schedule. Improvement must be shown in these areas. Establishing an over budget and over schedule policy was suggested. In addition, NSF should perform risk management and track the progress during the life of the project.

- International Collaboration: An emphasis has been placed in this area. NSF continues to support international partnerships and collaborations and recently signed an MOU with USAID.

- Multiple investigator awards: The community is putting emphasis on this type of award, which will provide a foundation for science to operate at a higher level of complexity, foster partnerships, collaborations, and enable the PIs to work across departments and institutions.

- Human Capital Initiative: NSF will continue to campaign for additional resources within the AOAM budget. There is an emphasis on succession and long range planning in the workforce to select candidates to replace management when they are ready to retire.

- Transformative Research: NSF is working on new proposal instruments to allow Program Officers (PO) and panelists to take greater risks and to provide Principal Investigators (PI) a way to try new ideas.

Committee comments/questions for Dr. Bement:

- The Committee expressed their gratitude regarding the changes seen in the AOAM budget.

- BSR overview: Dick Seligman provided a highlight on the BSR Committee recommendations. In general, BSR comments were positive, but he wanted to highlight a concern of the Subcommittee about the need for greater coordination within NSF divisions and the OIG so there are not duplicative and overlapping reviews.

- With respect to the upcoming change of administration, Dr. Bement reinforced that performance accountability, quality management, and strong internal systems are important for NSF success. He also indicated that more investments need to happen on climate change to be in alignment with the ideas of the new administration.

- In the area of Stewardship, a proper balance is essential between programs, investments, participation, and risk.

- The Committee acknowledged that management of MREFCs has been positively transformed. Dr. Bement also acknowledged the Committee and the Large Facilities Office for a job well done.

CIO Updates ~ George Strawn, NSF Chief Information Officer

Information Technology (IT) has moved from tactical importance to strategic importance. The Executive IT Resources Board (formerly called the CIO Advisory Group) and its subcommittees (Enterprise Architecture and Capital Planning and Investment Control), along with the Facility Security working group, provide support for improving NSF-wide IT resource allocation and security at NSF large facilities, respectively.

Security and Privacy

- The House Oversight and Government Reform Committee gave NSF an "A+" in its annual report card on IT security for Federal agencies.]

- NSF building IT security is in good shape. Privacy and the handling of personally identifiable information has become a focal point within the government, including personally identifiable information (PII), 2-factor authentication and laptop/memory stock encryption. In addition, the government wants to cut the current 2500 trusted internet connections to 50 trusted internet connections to help reduce the pilfering of information. This is anticipated to be completed by June 2008.

Applications and Infrastructure

- Due to increased proposal volume, Program Officers have asked for assistance in finding reviewers. To aid them, applications have been incorporated as part of the Reviewer Management and Research.gov system.

- NSF has incorporated external hosting and Service Oriented Architecture (SOA). In addition, cloud computing is a new phase for grid computing technology and it may be a future possibility.

<u>**BFA Updates**</u> **~** Tom Cooley, BFA Director/CFO

BFA Customer Service focus – While GPRA's performance results focus on agencies' external goals and measures, BFA is also focusing on internal performance measures especially communication and "in reach." One example: the 2-day Administrative Management Group (AMG) training exercise spearheaded by Joan Miller. 120 NSF administrative staff registered for the session and they want more of this type of training. BFA may consider offering this course every six months.

BFA produced an internal customer satisfaction survey for the first time this year -- Generally good news; by drilling down in the responses BFA was able to target any areas of dissatisfaction and resolve the few issues identified as problem areas. One area of dissatisfaction actually had nothing to do with BFA; it was an issue between a directorate and the Office of the Director. Survey results were shared with the BFA staff, but not yet with NSF as a whole. Committee had several comments: that when people take surveys they like to see results; that the survey grouped "satisfied" with "neutral" but that these in reality are different things; that "neutral" can mean people are confused, tolerating things, or not understanding issues; that in quality assurance systems, you want to celebrate what you are doing well, but that the presentation slides hide that; and that BFA ought to share the results with the NSF staff. The survey had been handled a certain way to first allow BFA staff to focus on areas that needed improvement; to look at the negatives and provide quick feedback, so customers knew their concerns were being addressed. This also had the benefit of helping sort out confusion in the directorates as to what BFA is responsible for, and who can help with certain questions/concerns. This was the first BFA survey, so there is no trend line yet.

Award Process Improvement – BFA is conducting internal outreach to look at proposal guide, policy manual, system concerns, and divisional practices and processes. Funds have been received to further develop DGA's paperless award processing—a much-needed function.

FY08 financial statement audit – noted the five-year management letter and that contract monitoring is still on the books. Contract policy manual needs to be updated, and rigorous COTR training is scheduled for this summer. Timelines for meeting the 2008 audit were also discussed.

OMB Circular A-123 – There were nine key business processes including a new accounts payable process this year. BFA underwent an intense effort to identify and document these key processes.

Post-award Monitoring – will be an area of future interest and growth federal-wide. The government needs to take a more coordinated strategic approach to this issue; or grantees may find themselves under constant review by one agency after another. This is also an area of concern to the CFO Council.

Audit Resolution – NSF is participating in an OMB interagency working group to re-write the OMB audit follow-up Circular A-50. It's possible that some good will come of this exercise, but it remains to be seen.

Merit Review Website – a survey of PIs found lots of misunderstanding about the data. NSF must better explain the merit review process and award decisions. The survey resulted in the new merit review website, intended to help PIs figure out the best avenue for their particular proposals.

"Transformative Research" – The scientific disciplines will need to come up with their own interpretation of this phrase, and PIs will then have to incorporate this into their proposals.

Educating the scientific community about transformative research will be an area of focus for the next several years. The community also needs to self-educate and self-regulate.

BFA Policy Council – This is an opportunity to develop key policy documents for finance, contracts, grants, cooperative agreements, and to make such documents living and fresh. The Council is discussing potential changes and following through to see how these changes affect other areas. This process will help strengthen internal controls and promote a greater understanding of policies, and he anticipates a spillover in these benefits from BFA to NSF as a whole.

Co-chairs thanked Tom Cooley for his presentation, and opened the floor to comments. They were pleased to hear about the training for Administrative Managers, noting they are core staff. Every six months may be too frequent to hold the training sessions; perhaps a network of AOs could work together and communicate as necessary. Tom noted that such a group exists.

Business System Review (BSR) Subcommittee Update ~ Mark Coles, Deputy Director for Large Facility Projects, BFA, and Dick Seligman, B&O Advisory Committee Member and BSR Subcommittee Chair

- Background -- BSRs in general were developed to assist the awardees by strengthening their systems, and to align awardee institutions' systems with NSF's. National Astronomy and Ionosphere Center (NAIC), National Optical Astronomy Observatory (NOAO), and Network for Earthquake Engineering Simulation Research (NEES) are examples of organizations who's BSRs were too broad. A particular challenge in designing any BSR is that any financial scrutiny looks and smells like an audit; even though it isn't, it can be just as painful for the recipient. The challenge to the committee is in how to promote BSRs so that they will be accepted by the community. Many thanks to Brian Mannion and Florence Rabanal for their diligent work in the development and implementation of NSF's BSR program.

- Key Conclusions and Recommendations (details outlined in the presentation slides) --

  o The scoping process is of critical importance, tailoring the BSR so that it's not a TOTAL review but rather focuses on the appropriate areas. Greater emphasis should be placed on the process of scoping. Seasoned subject matter expert (SME) participation is crucial, but this is often a challenge due to time commitments involved and NSF staff commitments. A subject matter expert is someone with experience in the relevant business systems and practices, typically NSF staff or consultant.

  o A request that NSF coordinate the BFA reviews and the business-related program division reviews for large facilities awardees to minimize the burden of duplicative business-related reviews and requests for information.

- Committee Discussion -- Usually BSRs include someone from the cognizant division; the program officer normally attends, but scheduling these reviews is complex, and is now done one to two years out. Every facility large enough to show up on GPRA reporting should expect a review once every five years. Co-chairs thanked Mark and Dick for their presentation and noted that the B&O Committee will get a draft of this report, so that it can consider the detailed recommendations and make comments.

Stewardship Goals and Performance Measures ~ Pat Tsuchitani, Senior Advisor for Performance Assessment, Budget Division, BFA

Pat coordinates GPRA Reporting on all NSF goals; and defines stewardship as what NSF does to assure progress toward NSF's other goals. In FY07, NSF achieved 7.5 of its 8 goals, all except management of large facilities due to issues beyond NSF's control. With FY08, the nomenclature changed from stewardship goals to "performance areas."

Communicating Results – NSF senior management receives quarterly reports on goal progress, and each performance area has an NSF lead program officer or organization responsible for implementation. Performance results are communicated in four separate ways: published in the FY 09 budget request to Congress; published in the Performance Highlights report; discussed in the Management's Discussion and Analysis chapter of the Annual Financial Report; and published on the NSF Performance website.

Citizens Report (formerly the Performance Highlights) was brought up to the Committee. This is the document NSF distributes widely to visitors including foreign visitors. OMB wants a short version this year, no more than 25 pages, and will be providing a template. The Citizens Report will be published in January 2009, right before the inauguration of the new president. NSF's goals are outward-looking performance goals including merit review, increasing transparency, and broadening participation. A searchable database of reviewers is a forthcoming recommendation.

Committee Discussion -- that NSF has outcome goals defined, but the measures in place are not necessarily outcome measures, but rather, activities. The Committee noted that NSF should have trend information in future reports so that progress can be measured against previous years and suggested that the performance information be included in the same place as financial information, so that it is harder for Congress to ignore the performance issues. Committee noted that at the last meeting members were asking how well NSF had done and was wrestling with the idea of success. Would it be appropriate and/or realistic to have the stewardship goals weighted when determining level of success? Because FY 07 was the first year for stewardship goals/measures, there is no trend information yet; however, NSF will be keeping track in future years. The FY 08 report will be more robust. Stewardship priorities, a mix of outward- and inward-looking milestones, are not currently weighted. The stewardship goals that are included in the Strategic Plan are guidance for NSF's future, and have been viewed as equally important. The Committee commented on possibility of making goal measures pass-fail. NSF would have to consider how to incorporate this given that its measures were designed with the intent of being transparent. To see raw numbers, which currently are not easy to find, one can go to the website or the detailed budget chapter submitted to Congress. It was noted that last year's report included a photo showing children wearing safety goggles on their head instead of over their eyes; NSF may want to be careful about the kind of messages it sends.

The Committee cautioned that care be taken when articulating what things NSF can be assessed on, and to make sure they are things NSF has control over, that our measures are measurable. Think about performance areas and link the human capital plans with stewardship so that the human component, internal to NSF, is emphasized. There are discussions about this among senior management. Previous performance areas looked only to the external community, but NSF now has

a goal to link the external areas to the internal areas. Co-chairs closed the session by asking the Committee to review the B&O Meeting draft minutes when they are forwarded to be sure all comments are captured and incorporated accurately.

Update on NSB Task Force on Cost Sharing ~ Craig Robinson, NSB

In August, 2007, in Section 7013 of the America COMPETES Act, Congress formally called on the National Science Board (NSB) to focus in particular on the impact of NSF's current cost sharing policy on Engineering Research Centers (ERCs) and Industry/University Cooperative Research Centers (I/UCRCs). The Board also added EPSCoR as a focus of the study. The NSB Task Force on Cost Sharing was established in October 2007 to analyze the impact and unintended consequences of the 2004 revision to the cost sharing policy.

The Task Force collected data from a variety of sources, including the Roundtable Discussion on Cost Sharing held in December, which some of the B&O Committee members attended. The Task Force found that in general, there was overwhelming support in the community for reinstating cost sharing for the EPSCoR, ERC and I/UCRC programs. In February 2008 the "Report to Congress on Cost Sharing Policies at the National Science Foundation" was issued.

Craig noted that NSF, through its exemplary outreach activities, continues to communicate its cost sharing policies to the community. NSF has exceptional program officers in terms of their knowledge of their fields; NSF needs to ensure that they are not trying to stretch funding dollars by asking for additional funding from other institutions.

The next report to Congress is planned for February, 2009, and will include:

- NSF management's implementation report,
- input from all Advisory Committees, and
- Input from the July 9 and 10 roundtables on "Voluntary Cost Sharing: Specification, Tracking, and Role in the NSF Decision Process" and "Implications of Mandatory and Voluntary Cost Sharing for Broadening Participation in Science and Engineering Research and Education."

Further information is available on the Task Force's website:
http://www.nsf.gov/nsb/committees/tskforce_cs.jsp

Craig requested that if there are any volunteer awardees who would like to help, they should contact his office. Mary Ellen Sheridan volunteered to participate.

NSF Implementation of the NSB'S Cost Sharing Recommendation ~ Jean I. Feldman, DIAS

Jean Feldman presented the current implementation status of all six NSB recommendations on cost sharing that were included in the February 2008 "Report to Congress on Cost Sharing Policies at the National Science Foundation." The Foundation worked collaboratively with the NSB on the report, which recommended that cost sharing be reinstated for all major research instrumentation

programs--with the exception of non-PhD-granting institutions, which are exempt from cost sharing.

The Committee discussed the information on cost share that was sent by NSF with the request for feedback. A portion of a paragraph taken from Dick Seligman's article in NCURA's 2000 RMR (Research Management Review journal) was read and discussed. Overall, the Committee noted that the NSB cost share recommendations are excellent. Discussion focused on the following:

- How cost share impacts "broadening participation" with minority institutions, mid-sized universities that are not large research institutions, etc.

- EPSCoR mandatory cost share. Craig Robinson noted that many state governments withdrew support when the requirement was no longer in place – input from community on this was very strong. Congress also informally requested that cost share be applied to EPSCoR.

- Voluntary cost sharing and the significant auditing thereof. It is almost impossible to think about voluntary cost sharing without paying attention to what the IG and auditors have to say and their definition of cost sharing. "Accounting is not accountability." How can NSF convey to Congress what is meant by cost sharing and voluntary cost sharing without having the audit community involved?

- Impact on research by cost share as a means to enhance NSF funding. Did the university create the impact that it committed to when it received the award – did it commit the time, space, and other resources, not just the funds? This issue gets turned into cost sharing due to the focus on funding being the key measure of impact, which is subject to audit.

- Concern about measuring institutional commitment by cost share as opposed to research outcomes.

The Committee also discussed the report regarding limiting the number of proposals. This is a major issue for both large and small institutions. If NSF limits the number of awards for one institution in a small number of cases – what impact does this have? Does this limit NSF's ability to have truly great impact? The Committee was concerned about the negative effects of limiting proposals. Craig noted that the report to Congress is due in August, and he requested comments from the Committee by June 30th.

Research.Gov Update ~ Mary Santonastasso, DIAS & Andrea Norris, DIS

OIRM and BFA partnered on this project and each Division has been very active. Research.gov is becoming a strategic service delivery for NSF, for partnerships in community, and for institutions. In the interest of time, the presenters only reviewed a few of the PowerPoint slides, and then conducted a demonstration of the live portal, which has been developed with input from the advisory Committees and the community at large.

There have been many changes on the Grants Management Line of Business landscape, and research.gov has become the research-oriented solution to delivering consortium services and easing the administrative burden of grants management. Agencies that have partnered with NSF in the

consortium so far are NASA, Department of Defense Research and USDA's Cooperative State Research, Education, and Extension Service (an original partner with NSF in the initial pilot). The team is currently meeting with NIH, who is also beginning to show an interest in partnering on the project.

The feedback from partner agencies and the community has been very positive thus far as NSF has been implementing a phased approach to offer services that align with the needs of both the community and the partner Federal agencies. The menu of services format allows them to choose and deploy the modules in whatever order works best for them. InCommon, a new service being added this summer, will allow for trusted authorization and access to research.gov and FastLane with university credentials.

Research.gov also provides an opportunity to modernize FastLane as its rules are migrated over. Only 1% of NSF's proposing community uses grants.gov to submit proposals, so FastLane is the solution for NSF for the foreseeable future. FastLane will eventually be integrated with research.gov, but this is being built out slowly.

Research.gov is an environment, not a system. It is the next generation of providing services to both community and internal staff to relieve the pressure of high demand. The site is hosted in an offsite, commercial, secure facility. Its service-oriented architecture allows modular, reusable services that can be approached through either research.gov or through internal systems in each agency.

A system demonstration was provided by James Graham.

Mary Santonastasso thanked the Committee for the advice it has provided over time, and noted that this is just the beginning for research.gov. NSF will be undertaking aggressive outreach, conducting workshops, and getting feedback.

The Committee agreed that Research.gov is outstanding and highlighted the following:

- The research spending component. In time, FFATA requirements will be fully met when subawardees are included.

- Online learning modules explaining government-wide rules and agency-specific rules, as well as proposal writing would be a beneficial addition to the site.

- PI notification of proposal/grant status would be useful.

Final Discussion/Committee Wrap-up

It was recommended that the next meeting be held the week of November 17-24, 2008. Based on the presentations and ongoing discussions, Tom Cooley presented possible agenda items for the next meeting as follows:

- BFA Human Capital Plan -- update.

- BSR recommendations -- while currently still in draft form; management is in concert with most of them. NSF will start updating the guide once a year, and should be able to report on this topic by November.

- Cost share -- an update will be provided at the November meeting. It will include comments from the Federal Register notice.

- Limiting the number of proposals -- status report on the Board's recommendations. NSB will provide a number of different roads/strategies to employ as they figure out how to implement.

- Responsible conduct of research -- there should be a policy statement by November. A separate, more detailed discussion may be necessary.

- FY '08 closeout -- November 15 is reporting deadline for audit; so by the week of November 17, NSF should be able to report outcomes of the audit.

- Status of the FY09 budget.

- GPRA and Stewardship Goals -- looking at proposed models for weighting of performance areas. What's more important: dollar value of an area or value to customer? How do we measure the value to the Nation in broadening participation?

The Committee discussed the following additional agenda items:

Enhanced technology as it relates to an increasing work load. There was concern that there was a 40% increase in proposals from FY01 - FY07 and only an 8% increase in staff. With the enhanced tools and technology available, where are we really? This ties in with limitations on number of proposals too.

Transition issues for NSF to consider – What are the overarching themes that NSF wants to communicate to the new administration? What statistics should NSF be using? Staff needs to start thinking about how to present NSF, especially in the next 6 months. Is this the right message for transition as well as for the future? Should NSF be presenting basic information about the Foundation and information specific to each candidate? The Committee acknowledged the need to protect the continuity of critical mission programs.

Tom Cooley noted that transition planning started a few months ago. NSF is examining the fundamental backdrop—not creating separate messages for different candidates. Many of the people coming into a new administration don't know anything about NSF. By the time we are able to educate them, it is too late. Most career civil servants say that this is a "once in every eight years opportunity." By the time we educate the transition team, we've missed the boat of what they've already planned for first 4 years of the administration. NSF will certainly be in a position in November to talk to the Committee about those critical messages and to share the one-pagers provided to transition teams.

Brainstorming session about how the Committee can help NSF help the community. How can this Committee/NSF assist research administration of universities? November meeting may be an opportunity to speak strategically. How do we include the university perspective? What policy

direction is appropriate? (E.g., NSF has a reversionary hold on equipment. What's the university position? What is the broad benefit to the community?)

Formation of Ad Hoc Subcommittees –

- There is a need for the Committee to formalize/standardize their recommendations. Formal input via subcommittee process has made big changes – generates more than Committee member comments after each presentation. Subcommittees always have a specific charge and there are NSF members on them. They are always informed by the key people involved. They take a lot of time—but they attack a problem, deliver a product, and disband. The Committee concurred that brainstorming time on subcommittees would be helpful.

- BFA Human Capital plan in November -- potential subcommittee to work with BFA. What are appropriate ratios for number of program officers and grants administrators? Need an integrated approach to managing whole of NSF. Work out balances between hiring people and advancing technologies.

Research Management Initiative (RMI) – the Committee believes it would be helpful if NSF could dig into archives to remind the Committee of what those RMI activities were. Complexity within institutions around how to manage grants and tradeoffs of resources makes it ripe for a rigorous look at systematic research-based look at research management environment in institutions. Need to lay some groundwork as to possible opportunities. Look at research infrastructure and stewardship – build research management initiatives.

Meeting adjourned at 12:30 pm on Friday, May 30, 2008