



NATIONAL SCIENCE FOUNDATION

Office of the Director

August 9, 2004

Organizational Excellence: The NSF Results Agenda

All of us know that NSF has always been committed to excellent, results-oriented management and stewardship. To further this commitment, last year, the NSF Strategic Plan was modified to incorporate Organizational Excellence as a strategic goal, on a par with NSF's established science and engineering goals of People, Ideas, and Tools. Organizational Excellence reinforces the idea that excellence in management underpins all of the Foundation's activities and calls on us to be "an agile, innovative organization that fulfills its mission through leadership in state-of-the-art business practices." The Organizational Excellence goal's focus on human capital, business processes and technologies and tools resonates strongly with the President's Management Agenda (PMA) goals in critical business disciplines and adds momentum to our ongoing efforts. The synergy of Organizational Excellence and the President's Management Agenda helps us focus on results and sets, in effect, an "NSF Results Agenda."

The attached fact sheet lists just a few of the recent direct results of this elevated commitment, which is also reflected in NSF being the first agency to achieve Green on the PMA Scorecard for E-Government and Financial Management and our marked progress in the other scorecard areas. Several of these activities flow directly from the ongoing NSF Business Analysis, which is important in supporting our holistic, multi-disciplinary approach to management excellence and to achieving results. And all of these efforts, directly or indirectly, help NSF provide first-rate customer service to proposers, reviewers and grantees and help make NSF what we know to be one of the best places to work in the Federal Government. You can also be proud that NSF has distinguished itself as a leader in the specialized PMA initiative for enhancing R & D investment criteria, helping us meet the challenge of investing in scientific and engineering excellence on the increasingly complex frontier. The rigor and credibility of our merit review "gold standard" will be reflected in achievements and breakthroughs for many years to come.

I hope you will take this opportunity to learn more about these activities, get involved in ones that might interest you, and, in doing so, continue working to uphold NSF's tradition of excellence in science and engineering research and education. As always, I welcome your suggestions for additional improvements.

Arden L. Bement, Jr.

Organizational Excellence: The NSF Results Agenda

ORGANIZATIONAL EXCELLENCE GOAL - AN AGILE, INNOVATIVE ORGANIZATION THAT FULFILLS ITS MISSION THROUGH LEADERSHIP IN STATE-OF-THE-ART BUSINESS PRACTICES

“Excellence in managing NSF underpins all of the agency’s activities. Most importantly, this leadership depends on maintaining a diverse, agile, results-oriented NSF workforce that operates in a continuous learning environment. NSF’s strategy focuses directly on the agency’s leadership in core business processes, such as E-government and financial management. NSF’s investments in administration and management must respond both to the growing complexity of its workload and to new requirements for accountability and transparency in its processes... Excellence in managing NSF’s activities is an objective on par with the Foundation’s mission oriented outcome goals. It is critical to achievement of all NSF goals. In addition, this goal addresses the President’s Management Agenda...”

—National Science Foundation Strategic Plan, FY 2003 – FY 2008

A Word About NSF and the President’s Management Agenda

With the inclusion of Organizational Excellence in FY2003 as one of NSF’s strategic goals, the Foundation’s long-standing commitment to leadership in business processes is brought into sharper focus and enabled by the President’s Management Agenda (PMA), a government-wide effort that was launched in FY 2001 to improve the management, performance, and accountability of federal agencies. An Executive Management Scorecard is issued quarterly by the White House Office of Management and Budget (OMB) to track agencies’ progress in meeting specific criteria under the government-wide initiatives that constitute the PMA.

NSF was the first agency to earn two “green” successful ratings, in financial management and electronic government, and aims at increasing our number of “greens” this year.

NSF Business Analysis Study

A key initiative is NSF’s Business Analysis study. The outcomes of the study are guiding long-term administration and management investments that promise important results for the agency’s operations. The study is addressing the fundamental challenges facing NSF as it becomes a fully integrated organization capable of working both within and across scientific disciplinary organizational boundaries. This study is a key element of NSF’s Administration and Management strategy, a concurrent analysis of human capital, business practices, and technology, which is now part of the Organizational Excellence strategic goal.

Opportunities in two critical areas of Merit Review and Award Management and Oversight are being emphasized this year. During FY03, the project focused on performing a comprehensive assessment of NSF's business environment. This baseline assessment is helping to identify opportunities for the integration of improvement in the three key components of business practice: human capital, business processes, and technology. The study will be of particular help with the progress of the competitive sourcing initiative.

The Business Analysis is based upon a holistic approach to management excellence and to achieving results, and supports several of the initiatives of the President's Management Agenda at once. The solutions discovered are helping us to evolve as an agency and best meet the needs of our science and engineering research and education community.

The Business Analysis team recognizes that the best ideas often come from directly within the organization, and thus are actively involving NSF staff in the analyses. The results and benefits of this effort are just beginning to emerge. NSF staff will be kept up to date as results develop. Staff members who want to learn more about results and outcomes of the Business Analysis, the status of current activities, who is involved in the project, and how you can participate, please visit the updated website at: www.inside.nsf.gov/business_analysis/.

A sampling of Organizational Excellence results in concert with the President's Management Agenda follows.

Strategic Management of Human Capital

Scorecard: Status: **Yellow**



Scorecard: Progress: **Green**



NSF is doing a great deal to improve staff opportunities and promote the development of its human capital.

Performance Management Improvements. Beginning April 1, 2004, NSF formally linked performance management plans for all employees to the NSF mission, strategic goals, and/or objectives. This linkage ensures that all performance requirements are directly tied to mission accomplishment. NSF staff can maintain a clear line of sight between what they do and how it helps NSF achieve its objectives and how their individual accomplishments contribute to the success of the agency as a whole.

Diversity Initiatives. During the last year, NSF significantly revised its recruitment fair display and expanded its recruitment materials to "get individuals to the table" so that the agency can be seen as an employer of choice. At the same time, we have significantly expanded our participation in job fairs and in professional association meetings by having attended or being scheduled to attend more than 14 events during this fiscal year, including: Society for Advancement of Chicano and Native Americans in Science (SACNAS) Conference; American Indian Science and Engineering Society (AISES) Annual Conference; U.S. Department of Labor Perspectives of Employment of

Persons with Disabilities Conference; Society of Hispanic Professional Engineers (SHPE) Conference; and National Society of Black Engineers (NSBE) Conference.

NSF has an affirmative responsibility in its mission and strategic objectives to seek out and fund opportunities to increase minority and female interest in our continuing commitment to science and engineering research and education. NSF also funds numerous student programs that allow selectees to solidify their interest in science and engineering at colleges and universities, at science and technology centers, through other NSF-funded institutions, or with the Federal Government.

Employee Recognition. NSF has a long history of recognizing employee achievement. In recent years, the Deputy Director, NSF, has incrementally increased the monies available to recognize annual performance that, for this appraisal period, equated to 5 percent of General Workforce salaries. The performance bonus program allows directorates to determine formulas that they believe most appropriately recognize performance and contributions. Such flexibility allows directorates to tailor the program to best meet their needs. The performance bonus process contributes to the overall view of NSF as an employer of choice. In addition, NSF holds an annual Director's Award ceremony that publicly recognizes individuals for specific, valuable contributions to the mission of the agency.

In the first-ever organizational survey assessment across the Federal Government, National Science Foundation ranked second out of 28 Federal agencies as a “Best Place to Work.” The analysis was a joint endeavor between two independent, non-profit organizations – Partnership for Public Service and Institute for the Study of Public Policy Implementation. This accomplishment has been widely recognized throughout the Federal community and has been featured in the national press.

Current Activities Yielding Future Results

NSF’s Business Analysis. Analyzing NSF’s Human Capital in the perspective of the organization’s mission and future requirements will allow the Foundation to develop people strategies and practices that hire the best people for the organization, place them into the correct job, and support them in a way that best enables sustainable success and future growth. Through NSF’s Business Analysis, the outcomes of which will guide long-term administration and management investments that promise important results for the agency’s operations, we will identify how changes to one organizational component impact the others. Understanding the new workforce capabilities needed to capitalize on contemporary management ideas and new technologies is critical to ensuring that NSF can continue to meet its mission and achieve a high level of performance.

Innovative Studies on Human Capital. NSF has initiated two comprehensive studies of human capital issues within the Foundation as part of the NSF Business Analysis. The first study is the eJacket Human Capital Pilot Study. This study was initiated to recognize and begin to anticipate and address the way change (in this case, technological) impacts NSF staff. The study concentrates on how effectively change is

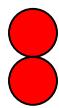
communicated, the impact on workload that results from change, as well as the impact on competencies, performance expectations and morale. Results from this study will be used to inform how NSF can better address the human capital impacts of change in the future. In addition, NSF is implementing an Administrative Functions Study to determine how best to organize administrative positions in our research directorates and offices to reduce administrative burden on science and engineering positions and to provide enhanced learning opportunities for administrative staff. The study will develop recommendations for senior management consideration on the future of such positions in the agency. The concept and scope of both of these studies has received praise from the Office of Personnel Management, which is closely reviewing methodology and eventual results to use as possible best practices for other agencies.

NSF Academy. Chartered in FY2003, the NSF Academy supports career development initiatives, which focus on individual NSF staff and include management, executive and leadership training. It also extends NSF's "After Hours" program for employees who are enrolled in career development courses or seeking certifications or college degrees. Career development opportunities will focus on in-depth career counseling, development of individual career path maps, and use of electronic career mapping tools to provide online links between career requirements or competencies and job families, providing staff with an array of new learning resources. Individuals benefit through career enhancement opportunities as does the agency. The NSF Academy has taken the first step toward institutionalizing competency-based people practices throughout the organization by mapping the requisite competencies to training curricula, thus enabling staff to enroll in training courses that will directly support their career paths.



Competitive Sourcing

Scorecard Status: Red



Scorecard Progress: Red

Current Activities Yielding Future Results

NSF is working to develop a strategy for competitive sourcing that is consistent with the findings and process improvement scenarios identified by the Business Analysis effort. Given that the purpose of the Business Analysis is to ensure that NSF is best placed to respond to future opportunities and challenges, there may well be some impact on how work is performed in the future and specifically how competitive sourcing will be addressed within the agency. The Business Analysis is now focusing on defining major

scenarios for improvement of its core business processes. These scenarios may include structural or functional realignments across the agency and include review of commercial functions. In addition, NSF is benchmarking against commercial activities at other agencies using job families as a method of comparison.

Improving Financial Performance

Scorecard Status: **Green**

Scorecard Progress: **Green**



Audited Financial Statement. NSF prepared its 2003 audited financial statements in 45 days, meeting the government-wide deadline a year earlier than required, and earned an unqualified opinion in its 2003 audit, its sixth consecutive achievement. As our Chief Financial Officer says: "Sound financial management is critical for any organization; for NSF, it underlies and enables the programmatic achievements essential to ensuring that America remains at the frontier of science and engineering research and education. NSF is committed to the highest standards of management efficiency and integrity. Our goals are to make transactions with our stakeholders more user-friendly, increase the efficiency of our internal operations, and provide real-time financial and management information and reporting for decision making purposes."

Data-Warehousing. NSF automatically prepares its quarterly financial statements in the new 21-day timeframe. We simultaneously produce our closing package financial statements and year-end financial statements using an automated closing and data-warehousing environment. This has been recognized as a best practice.

Employee Express. Financial Management excellence is something many of us take for granted – reliable systems with easy access to current data. One of our most recent significant activities was the successful transfer of NSF's payroll and personnel system support to the Department of the Interior (DOI), as a result of the major E-Government electronic payroll initiative to standardize, consolidate, and integrate government-wide federal civilian payroll services and procedures. The system includes a new service for NSF staff, Employee Express. Employee Express benefits all NSF staff by putting them in direct control of their payroll information. Staff can change withholding, buy savings bonds, update personal information, and keep track of leave balances, all in one place, 24/7.

Award Decisions. With respect to customer service, nearly 80 percent of merit-reviewed award decisions were made within six months of proposal receipt, despite a record 14 percent increase in the number of proposals received in FY 2003. This is up from a low of 54 percent in FY 2000. It means that scientists, engineers and educators can start their work more quickly. We have also set and met goals for ourselves in assuring that funding opportunities were available for sufficient time for proposers to respond with thoughtful, well-reasoned proposals. In FY 1999 we were only able to have 75 percent of funding opportunities available for a full three months. In FY 2003 that number was up to 99 percent, exceeding our goal of 95 percent.

Financial Management and Public Accountability Reporting. Accountability to the taxpaying public is a responsibility that ranks among the most important at the Foundation. For the third consecutive year, our annual *Performance Highlights* report has been rated as among the top 10 in a national review that included most of the Fortune 500 companies and this year, the report also received a Blue Pencil Award of Excellence from the National Association of Government Communicators. In an independent study from IBM's Center for the Business of Government in February 2004 on public accountability reporting ("E-reporting: Strengthening Democratic Accountability"), NSF was cited for excellence and received the highest grade of A+. The recognition by external organizations further emphasizes NSF's success and dedication to improving financial performance.

Current Activities Yielding Future Results

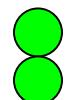
Travel Systems. New E-Travel and Panel travel systems will provide financial and payment benefits thru automation, increased controls and systematic travel card management.

Budget Performance Integration. NSF's effort aligns cost in a linear fashion with budget and performance integration. This alignment will assist in providing financial information to managers for decision-making.

Expanded Electronic Government

Scorecard Status: Green

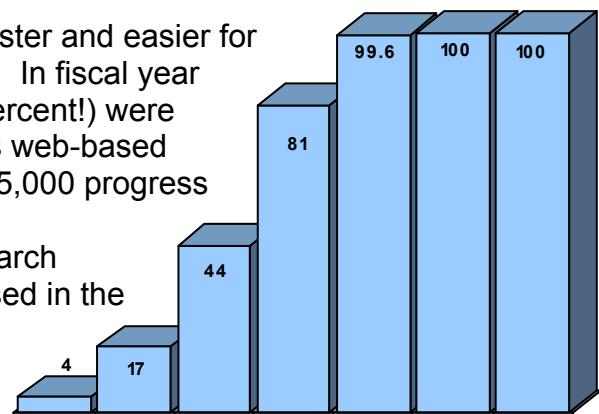
Scorecard Progress: Green



IT Security. Security is a critical business function at NSF. The key benefit derived from IT security is the protection of NSF staff and their work from interruption or loss. Security awareness is facilitated through disaster recovery and continuity of operations exercises, contingency plan testing, department newsletters, meetings and seminars, security policy bulletins, virus alert emails, and the annual agency-wide FISMA security review and IT Security Awareness Training. In FY 2003 more than 1,700 or 96 percent of NSF staff and contractors completed IT security awareness training.

Grants.gov. We are taking steps to make access faster and easier for the grantee community and for our "in-house" work. In fiscal year 2003, more than 40,000 proposals (virtually 100 percent!) were submitted electronically to NSF via Fastlane, NSF's web-based interface. In addition, over 190,000 peer-reviews, 25,000 progress reports, 15,000 cash requests, 10,000 post-award notifications and requests and 7,500 graduate research fellowship applications were submitted and processed in the FastLane environment. Many concepts used in Grants.gov are based on lessons learned from NSF's pioneering work with FastLane.

Grants.gov is designed to be the key access point for over 900 grant programs offered by all the 26 Federal grant-making agencies.



Note: The graph above illustrates the percentage increase in the number of proposals processed electronically, over the past seven years.

eJacket. Another new addition to the NSF toolkit is the new eJacket (electronic grants jacket) application, which provides NSF with additional electronic proposal access and processing capability, already providing more than 900 NSF users access to more than 10,000 distinct proposals a week. The benefits of this system for staff are that it provides quick and easy access to real-time information; increases efficiency by providing the capability to move toward a completely electronic process (no paper!); facilitates collaboration by providing the ability to share work for cross-directorate and cross-program activities; ensures consistency and reduces the learning curve for new staff. Staff feedback has been critical in making this a success at this early stage and continues to be instrumental in perfecting the system. We continue to make enhancements on the system in an effort to provide the best possible tool for our staff.

President's Quality Award for Management Excellence. NSF was singled out for outstanding performance and results in the area of "Expanded Electronic Government." In December 2003, the National Science Foundation received the President's Quality Award for Management Excellence for the Foundation's innovative electronic capabilities to solicit, receive, review, select, award, manage and report results on public research and education investments. The award recognized NSF's successful FastLane system, an interactive, real-time, web-based system used by over 200,000 scientists, educators, technology experts and administrators, to conduct NSF business over the Internet.

E-Government Human Resources Initiatives. NSF is actively involved in all current E-Government HR initiatives headed by the Office of Personnel Management. These initiatives include:

- E-Payroll. As already noted, one of our most recent significant activities was the successful transfer of NSF's payroll and personnel systems support to the Department of the Interior (DOI) in May 2004, as a result of a major E-Payroll initiative to standardize, consolidate, and integrate government-wide federal civilian payroll services and procedures. This E-Government initiative consolidates 22 federal payroll systems into four to simplify and standardize federal human resource/payroll policies and procedures to better integrate payroll, human resources, and finance functions. Benefits to NSF include more timely payroll and personnel processing, less duplication and better integration of systems and data, 24/7 web access for employee self service, and improved record keeping and reporting functions.
- Recruitment One Stop. NSF has implemented Recruitment One Stop, establishing a direct link between its automated staffing system called eRecruit and OPM's USAJOBS. Through the introduction of its eRecruit system, job applicants have the ability to create, update, save, and submit their application online for NSF vacancies 24/7. Subsequently, NSF has lowered the average amount of time it takes from receipt of request, to announce the position, to selection from 148 days (103 median) to 80 days (55 median). NSF is working still to decrease the end-to-end process time.

- E-Training. NSF staff already use E-Learning tools for required training in telecommuting and computer security. In keeping with our commitment to improve staff opportunities and promote the development of our human capital, the NSF Academy has been working diligently to follow the guidance provided under the E-Training initiative. In January 2004, NSF transitioned to GoLearn, the government-wide web-based e-Learning system. More than 2,000 courses are now available to staff electronically, from their workstations, for developmental purposes, including courseware in Executive Development, Management, Communication, Customer Service, Project Management, Information Technology, and Administrative functions. Access is also available to *E-Books* which provides electronic reference materials supporting the courseware, a *Resource Center* which provides access to libraries around the world, an *E-Mentoring* service that allows online interaction with experienced, certified mentors operating within a virtual classroom and a *Competency Management Center* that provides employees, supervisors and managers with the tools necessary to help manage career development and assist in strategic development of human capital. For more information on NSF's most recent E-Learning opportunity, visit GoLearn at www.golearn.gov/.

Current Activities Yielding Future Results

Lines of Business. NSF has also been actively involved in the government-wide analysis of five lines of business supporting the President's Management Agenda goal to expand Electronic Government that was launched in March 2004. NSF is represented on interagency teams that are examining business and information technology data and best practices for financial, human resources, and grants "lines of business."

NSF is co-chairing, with the Department of Education, the Grants Management Line of Business task force. The task force's goal to implement a government-wide framework to effectively support end-to-end grants management activities that: promote citizen access, customer service, financial and technical stewardship; achieve agency missions; and ensure business efficiencies and economies of scale within varying business models. In addition, NSF is a member of the Human Resources Line of Business Task Force (and playing a lead role in some of the working groups), and a participant on the Financial Management Line of Business Task Force. Both groups are working on steps leading towards end-to-end business support in their respective areas.

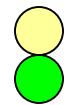
E-Clearance. NSF is currently implementing the E-Clearance initiative that will automate the process for completion of background investigation forms, speeding up this important process.

E-Travel. With implementation scheduled for FY2005, E-Travel will put an integrated, easy to use end-to-end travel service on the desktop of every NSF employee. E-Travel will support everything from planning, authorization and reservations to claims and voucher reconciliation.

Budget Performance and Integration

Scorecard Status: Yellow

Scorecard Progress: Green



NSF has made steady progress toward achieving the PMA's goal for Budget and Performance Integration. The keys to this involve: 1) aligning the NSF budget and cost framework with investments in the agency's strategic goals of People, Ideas, Tools, and Organizational Excellence; 2) developing full life-cycle cost profiles for major projects; and 3) upgrading information systems to enhance the cost and management information available to NSF staff. These improvements are leading to real results: better tracking of actual program expenditures, better planning for long-term investments, and better information on the tradeoffs between different types of investments. This information has already informed the ongoing discussions on tradeoffs between increasing grant size and duration and maintaining funding rates.

NSF is using the Program Assessment Rating Tool (PART), a government-wide assessment methodology, to evaluate program performance. NSF teams, led by program staff, have taken an active role in the current (FY 2006) cycle of the process. PART evaluates program performance in the areas of program purpose and design, strategic planning, program management and results. NSF developed the PART evaluation schedule shown, consistent with the investment categories and priority areas in the NSF Strategic Plan.

Results from the OMB evaluations for the FY 2005 NSF PART programs are available at <http://www.whitehouse.gov/omb/budget/fy2005/pma/nsf.pdf>. All four of the NSF programs assessed in the FY 2005 cycle were among the 11 percent of the 399 programs evaluated across government, which received the highest rating of "Effective."

	People	Ideas	Tools	Priority Areas
FY 2005	Individuals		Facilities	Nanoscale Science and Eng. Information Technology Res.
FY 2006	Institutions Collaborations		Polar	Biocomplexity in the Environment
FY 2007		Fundamental Science & Engineering	FFRDCs	
FY 2008		Centers Capability Enhancements	Infrastructure & Instrumentation	Mathematical Sciences Human and Social Dynamics

The table above is the **PART evaluation schedule**. Note that the fiscal year corresponds to the year the PART is developed for input to the budget process. Therefore, the FY 2005 PART evaluations were initially performed two years earlier, in 2003. NSF is currently completing the FY 2006 PART evaluations.

Related activities and results in performance alignment include:

Award Operations Realignment. The intention of the Office of Budget, Finance and Award Management (BFA) realignment is to enable a true end-to-end business process for awards that is systematic (rather than transaction oriented), better supports evolving program needs, and has adequate assurances that the funding is appropriately managed (and spent) based on a risk-based model. The realignment is consistent with the PMA initiatives in human capital, E-Government and financial management and can facilitate Budget Performance Integration as well.

The clearer areas of responsibility will help support improvements on many levels-- it allows our grants staff to have partnerships with programs that will result in more systematic program implementation; it allows the new BFA division (Institution and Award Support) to strategically combine outreach, technical assistance, oversight and audit resolution in a manner that will minimize audit disallowances and maximize grantee success; it also assures that complex awards get the special attention and expertise they require. Staff input, through a series of retreats, working groups and town meetings, helped create ownership of these important changes.

Large Research Facility Project Management. Managing the funding and oversight of large research facility projects has been an ongoing challenge for NSF--- a positive challenge, based on the growth and complexity of the cutting edge work we support. In the past few years NSF developed a Large Facility Management and Oversight Plan and has created a position for a Deputy Director for Large Facility Projects to coordinate the many activities related to NSF's efforts. Activities have included creation of critical guidance documents, sponsoring seminars, stronger internal management of Large Research Facility Projects and enhanced training for staff involved in these unique activities.

Research Business Models. NSF has been an active participant in the National Science and Technology Council (NSTC) Subcommittee on Research Business Models, which was formed to identify and recommend improvements to the Federal research process for all stakeholders. The subcommittee sponsored a series of four stakeholder workshops to identify issues and listen to stakeholder concerns. It identified a list of 10 issues to address in the short term and will continue discussions with the research community on future issues. Some of the issues in the first round include stability and predictability of support for facilities and instrumentation, standard progress and financial reporting procedures across agencies, and consistent Federal Government-wide rules for conflict of interest. For more information, visit: <http://rbm.nih.gov/>.

Current Activities Yielding Future Results

The outcomes of the NSF Business Analysis discussed above will enable NSF to respond to challenges such as the management of an increasingly multidisciplinary research and education portfolio and management and oversight of a growing number of complex large facility projects. It will also help us respond to our external stakeholders as we strive to provide world-class customer service.

These examples of current and future activities, accomplishments and results are just the tip of the iceberg. Along with many other PMA-driven activities, they add up to a significant, transformational difference in how business is done at NSF. This enables NSF to continue to be an effective, results-oriented agency that makes an important, positive difference in our nation and the world.

Useful Information Sources

- The President's Management Agenda: www.results.gov/
- NSF Strategic Plan: http://www.nsf.gov/od/gpra/Strategic_Plan/FY2003-2008.pdf
- Organizational Excellence Self-Assessment:
www.nsf.gov/oirm/bocomm/meetings/june_teleconf_2004/oe_goal_assess.doc
- Report by the National Academy of Public Administration: *National Science Foundation: Governance and Management for the Future:*
www.napawash.org/Pubs/NSF4-09-04.pdf
- The NSF Advisory Committee for Business and Operations:
www.nsf.gov/oirm/bocomm/
- NSF FY 2003 Performance and Accountability Report:
www.nsf.gov/pubs/2004/nsf0410/start.htm and see Highlights at
www.nsf.gov/pubsys/ods/getpub.cfm?nsf04011
- *Science for the 21st Century* report: <http://ostp.gov/nstc/21stcentury/index.html>
- NSF Facilities and Management Guide:
<http://www.nsf.gov/pubs/2003/nsf03049/nsf03049.pdf>