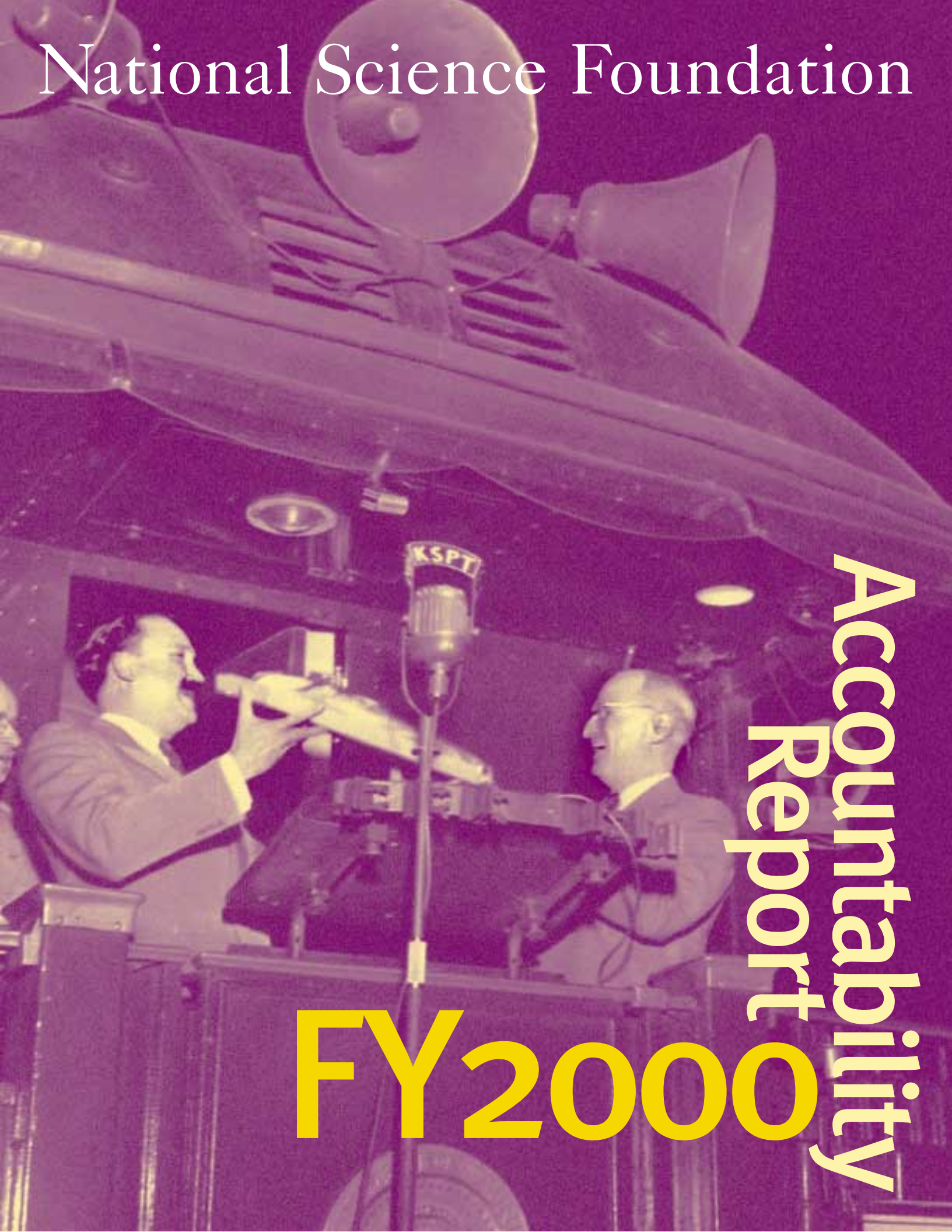
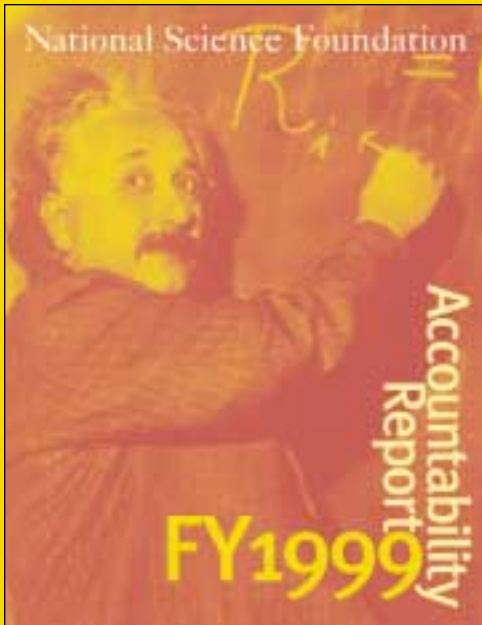


National Science Foundation

Accountability  
Report

FY 2000





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Presented to the

*National Science Foundation*

For its Annual Accountability Report  
for the Fiscal Year Ended  
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Executive Director



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# National Science Foundation

# Accountability Report FY 2000

◀ **On the cover:** President Harry S. Truman on the rear platform of a railroad car in Pocatello, Idaho, May 10, 1950, following the signing of the National Science Foundation Act of 1950, which created the agency.

“This act is of tremendous importance, because it will add to our knowledge in every branch of science. I am confident that it will help us to develop the best scientific brains in the Nation. It will enable the United States to maintain its leadership in scientific matters, and to exert a more vital force for peace.”

-President Harry S. Truman

*Photo courtesy of The Truman Library; Copyright unknown.*



I am pleased to present the National Science Foundation's Accountability Report for 2000. The report highlights a few of the Foundation's many achievements that help keep the United States at the forefront of learning and discovery in science and engineering research and education. You will also learn how NSF makes its investments in the future of America and manages the public resources entrusted to it.

During this year, the Foundation celebrated its 50th Anniversary. Looking back from the beginning of a new century, it is difficult to imagine a time when the structure of the DNA molecule was unknown and computers were half the size of a football field. Now scientists and engineers have delineated the entire human genome, and computers are found in kitchen appliances, bank cards, and children's toys.

The Foundation played a significant role in each of these developments. We sponsored studies in the early 1950's that laid the foundation for Watson and Crick's now famous discovery of the double helix. In the following decades NSF-supported research in fundamental biology became a vital part of the knowledge that culminated in the unraveling of the human genetic code—a discovery that promises a revolution in health care and disease prevention. NSF's leadership has also been invaluable in work on plant genomics.

Similar success stories can be told about revolutionary advances in computing—and dozens of other innovations that now make our every-day lives richer, healthier and more productive. In fact, economists estimate that 50 percent of U.S. economic growth over the past 50 years can be chalked up to the fruits of science and engineering research.

This year NSF can once again report significant advances at the frontiers of knowledge. Investigators supported by NSF have located six newly identified extra-solar planets, found black holes drifting through space, and taken the first pictures of the universe in its infancy. They have discovered bacteria, isolated for millions of years, in the Antarctic ice just over Lake Vostok, and learned that other bacteria living just below the earth's surface can be coaxed to rapidly convert oil to methane gas. Still others have worked to improve science, mathematics and engineering education at all levels from pre-school to post-doctoral.

Nothing is more important to the prospects of the nation than the ability to create and make use of knowledge. It's our job at the National Science Foundation to make sure that U.S. capabilities are the best in the world, and that the returns to the American people—who support these activities with their tax dollars—meet their highest expectations.

It is also our goal to adhere to the highest standards of management efficiency and integrity. I am therefore pleased to report that the financial information and the data measuring NSF's performance that are contained in this report are complete and reliable.



A handwritten signature in black ink, which appears to read "Rita R. Colwell". The signature is fluid and cursive, written over a white background.

Rita R. Colwell  
Director



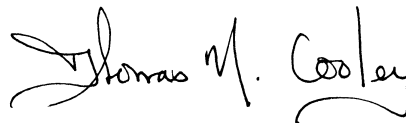
The National Science Foundation (NSF) is pleased to issue its third annual Accountability Report. This report, which also serves as the Foundation's annual report, is an integrated presentation of NSF's programmatic and management performance, including how we have responded to our financial management and management control responsibilities.

I am pleased to report that in FY 2000, for the third consecutive year, NSF's annual independent financial statement audit has resulted in an unqualified "clean" opinion, and a review of program and management controls did not identify any material weaknesses or reportable conditions. NSF's one reportable condition from prior years related to property, plant and equipment has been resolved, and overall, NSF made considerable progress towards achieving its annual performance goals in FY 2000.

This year marks the Foundation's 50th Anniversary. There have been many significant achievements in financial and operations management during these first 50 years, however, the complexity of the environment in which federal financial managers must operate is changing rapidly. There is an ever increasing demand for accurate and timely financial and management information, to assess programmatic activities and to enable better decision-making. NSF is well positioned to meet these challenges and build upon our past accomplishments as a leader of "e-Gov" practices, use of advanced information technologies, and in federal financial accountability and performance.

Regarding the latter, I am particularly proud to note that last year NSF was awarded the Certificate of Excellence in Accountability Reporting by the Association of Government Accountants. This recognition is a testament to NSF's quality financial management processes and the innovative staff here who make it happen. Looking into the future, it will be important for NSF to focus on human capital resource planning strategies to maintain our highly skilled management and programmatic workforce.

Thank you for your interest in our FY 2000 Accountability Report. I invite you to visit the NSF Web site ([www.nsf.gov](http://www.nsf.gov)) for more information on the exciting science and engineering research and education projects that the Foundation supports.



Thomas N. Cooley  
Chief Financial Officer







# NSF FY2000 Accountability Report

[www.nsf.gov/bfa/dfm/stmtpg.htm](http://www.nsf.gov/bfa/dfm/stmtpg.htm)

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◀ This computer-generated image of minimal surface area illustrates how advanced imaging technologies have opened new frontiers in mathematics and other disciplines

# Management's Discussion & Analysis

## Agency Profile

This year, the National Science Foundation (NSF) celebrated its 50th Anniversary as leader and steward of the nation’s science and engineering enterprise. These fifty years have been marked by path-breaking advances in science and engineering knowledge that have spurred innovation, fueled economic growth, and led to the highest standard of living in U.S. history. Discoveries at the frontiers of knowledge have transformed agriculture, communications, transportation, and industry. They have contributed to significant improvements in a broad array of areas—among them public safety, national defense, health, and the environment—that have secured greater social well being for everyone in the U.S.

In just the past decade, the U.S. has enjoyed an unprecedented period of economic expansion that Federal Reserve Chairman Alan Greenspan has attributed to advances in science, engineering, and technology. More than ever before in history, strengthening national capabilities to create and make use of knowledge will determine U.S. prospects for the future. Building on its record of achievement, NSF aims in its next fifty years to advance fundamental research and learning in all fields of science, mathematics and engineering to ensure that future generations will enjoy sustained prosperity and a higher quality of life.

### The NSF Mission: Enabling the Nation’s future through discovery, learning and innovation

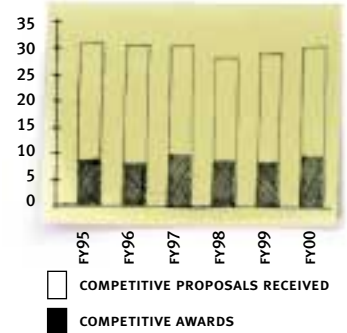
President Franklin D. Roosevelt, recognizing the important role that science and technology played in the war effort, foresaw the potential contribution of the science and engineering enterprise to the postwar world. At President Roosevelt’s request, Vannevar Bush, then director of the wartime Office of Scientific Research and Development, wrote a report, *Science- the Endless Frontier* (1945), which laid the groundwork for the establishment of the Foundation. On May 10, 1950, President Harry S. Truman signed into law The National Science Foundation Act of 1950 (P.L. 81-507) which created NSF and its mission “to promote the progress of science; to advance the national health, prosperity, and welfare; and for other purposes.” The Act authorizes and directs the Foundation to initiate and support basic scientific research and research fundamental to the engineering process; programs to strengthen scientific and engineering research potential; and education programs at all levels in all fields of science and engineering. The Act also authorizes the establishment of an information base for science and engineering appropriate for development of national and international policy. Over time, additional responsibilities have been added, such as developing computer science and other methodologies; providing Antarctic research, facilities and logistic support; and addressing issues of equal opportunity in science and engineering. Today, NSF stands alone as the only agency of the federal government devoted to supporting basic science and engineering research and education in all fields of science and engineering at all levels.

## What NSF Does and How We Do It

NSF supports research and education via grants, contracts, and cooperative agreements to about 1,800 colleges, universities, K-12 schools, academic consortia, nonprofit organizations, small businesses and other research institutions in all parts of the United States. The Foundation itself does not conduct research or operate laboratories. Instead, NSF's role is that of a catalyst—seeking out and funding the best ideas and most capable people, making it possible for these researchers to pursue new knowledge, discoveries, and innovation.

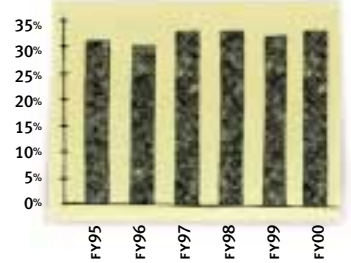
Each year NSF receives nearly 30,000 proposals for research and educational projects. Given NSF's available resources only about one in three new proposals are funded. In addition to funding individuals and small groups, NSF funds national research centers and state-of-the-art research facilities and instrumentation, such as the National Astronomy Centers, oceanographic research ships and Antarctic research stations. NSF also supports cooperative research between universities and industry as well as U.S. participation in international scientific efforts. Education and training activities supported by the Foundation benefit students from kindergarten through the post-doctoral level, including the funding of about 900 new graduate research fellowships each year.

Proposals and Awards (in thousands)

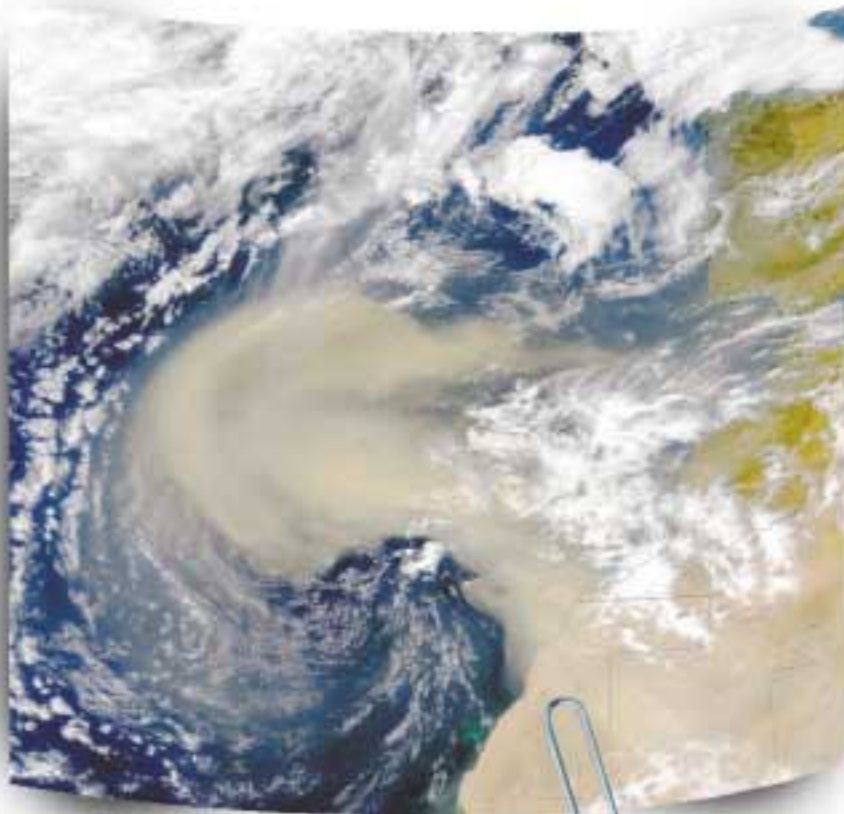


In FY 2000, NSF funded nearly 9,800 proposals from a wide range of fields in science, engineering, and education.

Funding Rate for all Competitive Proposals (percent)



In FY 2000, NSF funded 33% of the proposals received. In the last six years the funding rate has ranged from 30% to 33%. Awards are selected through a rigorous peer evaluation and merit review process.



In 1999, NSF initiated *Biocomplexity in the Environment*, a research thrust to study complex phenomena that arise as a result of dynamic interactions that involve biological systems and their physical environment. In one project, researchers at the University of Southern California are investigating a possible feedback system that involves dust, marine nitrogen fixation, and global climate. Shown here is dust from deserts swirling into the open ocean.

Photo courtesy of A. Michaels and D. Capone, University of Southern California.



## News – December 9, 1999

NSF PR 99-72

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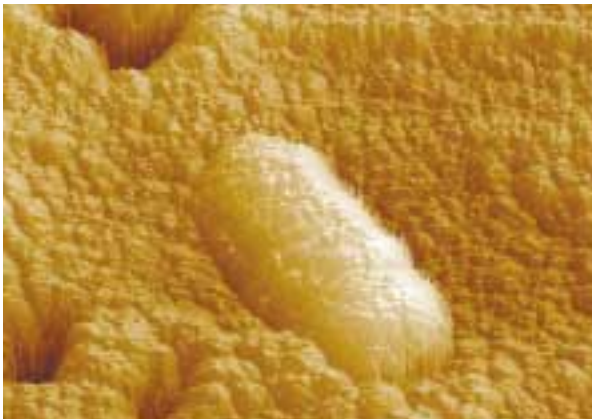
### **Bacteria May Thrive in Antarctic Lake Holds Implications for Search for Life in the Solar System**

Two separate investigations of ice drilled at Lake Vostok, a suspected body of subglacial water deep in the Antarctic interior, indicate that bacteria may live thousands of meters below the ice sheet. The findings by two National Science Foundation-funded researchers are scheduled for publication in the Dec. 10 issue of *Science*.

Two research teams, led by David M. Karl from the University of Hawaii and John C. Priscu of Montana State University, examined fragments of ice taken from roughly 3,600 meters (11,700 feet) below the surface—about 120 meters (393 feet) above the interface of ice and suspected water. Both teams found bacteria in “accreted” ice, or ice believed to be refrozen lake water.

Microscopic images of bacteria found in melt samples taken from ice thought to be refrozen from the waters of Lake Vostok.

*Photos courtesy of David M. Karl, et. al.*

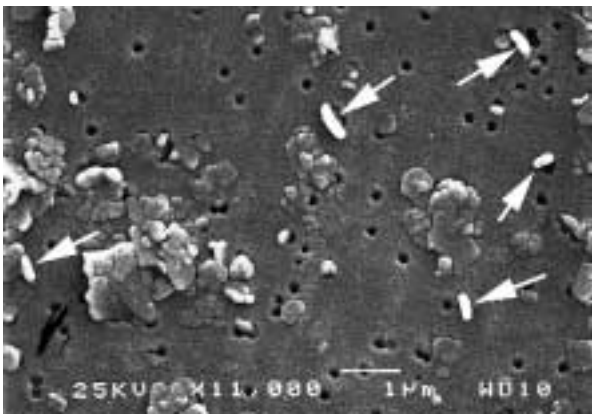


The teams conclude that a potentially large and diverse population of bacteria may be present in the lake. If so, this bacteria answers an intriguing scientific question about whether an extremely cold, dark environment which is cut off from a ready supply of nutrients can support life. The DNA analysis by Priscu's team indicates that although the bacteria have been isolated for millions of years, they are biologically similar to known organisms. The teams also conclude microbes could thrive in other, similarly hostile places in the solar system.

Evidence from radar mapping and other sources indicates that under several thousand meters of ice, liquid water may exist in Lake Vostok, possibly warmed by the pressure of the ice above or by thermal features below. The lake is roughly the size of Lake Ontario in North America.

Karl notes at least one outstanding question about Lake Vostok: whether the ice in which the bacteria were found is sufficiently similar to the water in the lake to allow scientists to conclude that a similar population—or an even larger, more diverse one—might thrive in the suspected liquid water

There are other scientific reasons to explore the lake itself. Ice cores have helped scientists assemble a climate record stretching back more than 400,000 years. Sediment samples from the bottom of Lake Vostok could extend that record to cover millions of years.



Rigorous merit review is a critical component of NSF's decision making process for funding research and education projects. Award selections based on a competitive merit review process with peer evaluation ensure that the best ideas from the strongest researchers and educators will be identified for funding. NSF awards directly engage an estimated 200,000 research scientists, engineers, mathematicians, teachers and students, ranging from K-12 to post-doctoral associates. Recipients of NSF funds are wholly responsible for conducting their project activities and preparing the results for publication.

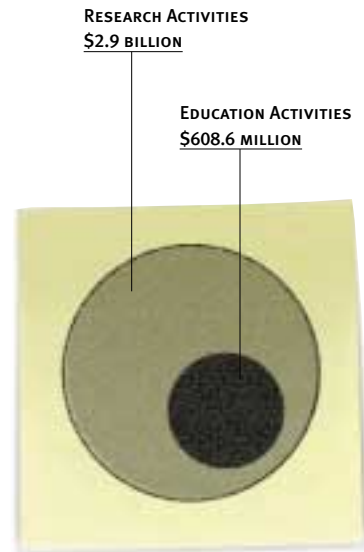
In FY 2000, NSF support of research activities totaled \$2.9 billion and NSF support of education activities totaled \$0.6 billion, as indicated in the Statement of Net Cost. Investment priorities focused on augmenting the nation's information technology (IT) knowledge base and strengthening the IT workforce, and fostering research in Biocomplexity in the Environment to better understand the dynamic interactions among the biological, physical and social components of the Earth's diverse systems. A new program initiated in FY 2000 was Partnerships for Innovation (PFI). PFI's goal is to build creative interactions in local communities between colleges and universities, government agencies, foundations and private corporations that will act as catalysts in helping communities transform new knowledge into innovations, create opportunities for new wealth, and build strong local and regional economies.

NSF is committed to ensuring that the U.S. has world class scientists and engineers, a national workforce that is scientifically, technically and mathematically strong, and a citizenry that understands and can take full advantage of basic concepts in science, math, engineering and technology (SMET). NSF supports education and training efforts in all regions of the country, focusing on developing new initiatives and instituting change, such as curriculum and instructional materials development and comprehensive systemic improvement efforts at the pre-college and undergraduate levels. NSF-supported informal science programs reach a wide and diverse audience of millions, such as *Galapagos*, a 3-D film currently being shown at the Smithsonian that shares with viewers the experience of traveling with a team of researchers to a field site in the exotic Galapagos Islands. In FY 2000, NSF also provided support for development of a National SMET Digital Library, a virtual facility to link students, teachers, and university faculty and provide broad access to standards-based science and math educational materials and learning tools for schools and academic institutions nationwide.

**Number of People Directly Engaged in NSF Activities**

SENIOR RESEARCHERS.....	24,100
OTHER PROFESSIONALS.....	8,900
POSTDOCTORAL ASSOCIATES.....	4,800
GRADUATE/UNDERGRADUATE STUDENTS.....	51,500
K-12 STUDENTS.....	11,500
K-12 TEACHERS.....	83,000
<b>Total.....</b>	<b>183,800</b>

*In FY 2000, an estimated 200,000 people were directly engaged in NSF-supported activities, and millions indirectly involved through NSF-supported activities such as science museums and television and radio programs.*



*NSF supports research and education activities, although given the integrative nature of research and education, research activities often include an education component.*

**NSF's Organizational Structure**

NSF is headed by a Director who is appointed by the President and confirmed by the U.S. Senate to serve a six-year term. NSF's current director, distinguished biologist Dr. Rita R. Colwell, became NSF's eleventh director in 1998. Dr. Colwell holds the distinction of being the first woman to head NSF. A 24-member National Science Board (NSB) oversees the policies and programs of the Foundation. Members are appointed by the President with the consent of the Senate, and serve six-year terms. The NSF Director is a member *ex officio* of the Board.



## News – November 29, 1999

NSF PR 99-71

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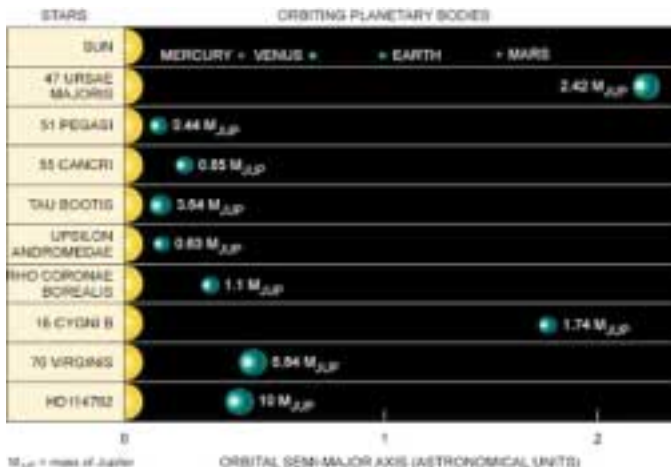
### Astronomers Discover Six Planets Orbiting Nearby Stars

A team of astronomers searching the galaxy with powerful telescopic instruments has found six new planets orbiting nearby stars. This increases by more than 25 percent the number of planets astronomers have discovered outside our solar system, to a total of 28 planets. All 28 have been found within the last five years.

The astronomers made the discoveries as part of a long-term project supported by NSF and NASA to survey 500 nearby stars for orbiting planets. Steven Vogt, University of California, Santa Cruz, Geoffrey Marcy of University of California, Berkeley, and Paul Butler, Carnegie Institution, along with Kevin Apps, a student at the University of Sussex, England, used the Keck I telescope in Hawaii outfitted with the “HIRES” spectrometer. They will report their findings in the *Astrophysical Journal*.

The six planets orbit stars that are similar in size, age, and brightness to the sun and are at distances ranging from 65 to 192 light years from earth. The planets themselves range in mass from slightly smaller to several times larger than the planet Jupiter. They are probably also similar to Jupiter in their compositions—basically giant balls of hydrogen and helium gas, according to researcher Steven Vogt. Their orbits tend to be quite eccentric, tracing oval rather than circular paths.

The presence of a planet around a star is revealed by the variation in the star’s velocity through space as a result of the gravitational force exerted on it by the orbiting planet. Vogt and his coworkers independently confirmed this method for detecting planets recently when they were able to measure the dimming of a star as a planet passed in front of it.



In addition to the discovery of six new planets, the researchers gathered new data on four known planets, whose orbits they had previously studied. Two of them showed long-term trends in their orbits indicating the presence of a companion, which could be an additional planet. These findings are significant because previously only one other system of multiple planets, around the star Upsilon Andromedae, had been identified outside our solar system.

Visual Image courtesy of Geoffrey W. Marcy, University of California-Berkeley

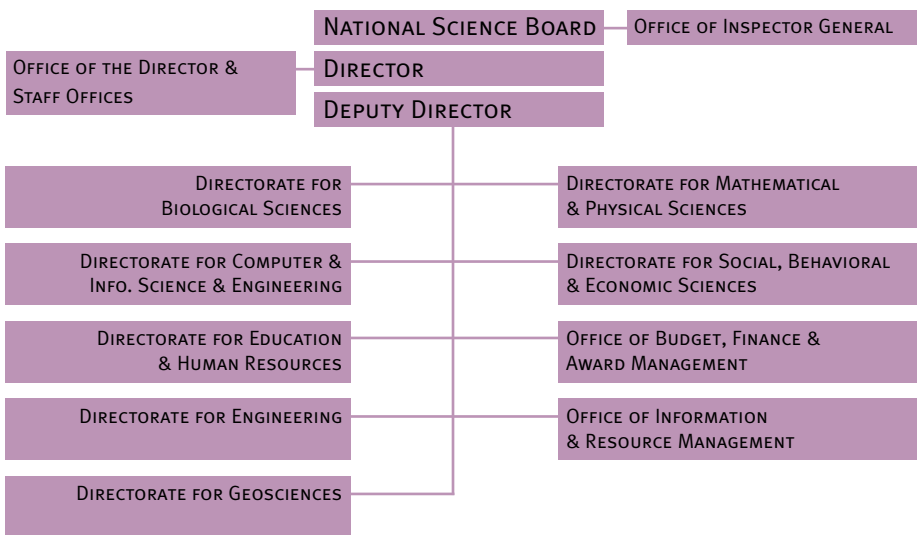


The NSB also serves the President and the Congress as an independent advisory body on policies affecting the health of U.S. science and engineering in research and education.

NSF is structured much like an academic institution, with divisions organized by disciplines and fields of science and engineering, and for science, math, engineering and technology education. There are seven operating directorates, two management offices and an Office of Polar Programs. More detailed information is provided in the Appendix, “Description of NSF Directorates and Management Offices.”

NSF is funded primarily by Congressional appropriations and maintains a staff of about 1,200 (full-time equivalents). To ensure that science and engineering funded by the Foundation remains at the frontier of the research enterprise, NSF utilizes the Intergovernmental Personnel Act (IPA) and Visiting Scientists, Engineers and Educators (VSEE) programs to regularly recruit outstanding scientists, engineers and mathematicians to serve short-term periods, who bring with them new and innovative ideas.

NSF is a well-managed, cost-effective agency, with internal operations consuming only 4% of its total budget. However, workload has become a management issue as the Foundation’s budget, workload volume and workload complexity have increased significantly while staffing has remained relatively stable over the past decade. In an attempt to accommodate an increased workload, NSF has been reengineering the way it does business, streamlining and simplifying work processes. In its pursuit of a paperless proposal and award process, NSF has been recognized as a leader in the use of advanced information technologies to improve internal operations and business transactions with the academic research community. In FY 2000, 81% of full proposal submissions were received and processed electronically and over 90% of grantee project reports were submitted to NSF through the new Internet-based Project Reporting System.



# Performance Results

This discussion of NSF's FY 2000 program and management performance provides a summary overview of the Foundation's GPRA (Government Performance and Results Act of 1993) results. For a more detailed explanation of each of NSF's performance goals and results, see the section on "Performance Results and Related Issues." This section also includes additional information required by the Office of Management and Budget (OMB) *Circular A-11*. However, for a complete and comprehensive discussion of the Foundation's performance goals and final results, see NSF's *FY 2000 GPRA Performance Report* ([www.nsf.gov/od/gpra/](http://www.nsf.gov/od/gpra/)).

This is the second year that NSF is reporting GPRA performance results. NSF began implementing GPRA in 1997, by developing a GPRA Strategic Plan. NSF's GPRA Strategic Plan serves as the guiding framework for NSF's FY 2000 Performance Plan ([www.nsf.gov/od/gpra/](http://www.nsf.gov/od/gpra/)), which was developed in conjunction with the development of NSF's FY 2000 budget. The concurrent development of the performance plan and the budget creates a direct link between programmatic activities and the achievement of NSF's strategic goals.

For NSF and other agencies whose mission involves research activities, GPRA implementation has been a particular challenge because: (1) it is difficult to link research outcomes to annual investments and the agency's annual budget and, (2) assessing the results of research is inherently retrospective and requires qualitative judgments of expertise.

NSF has developed an alternative format approved by OMB using external expert review panels to assess research results and reporting research outcome goals utilizing a qualitative scale. The use of external expert panels to evaluate research results and outcomes is a common, long-standing practice used by the academic research community. In FY 2000, committees of external experts were asked to evaluate the progress made by the programs in achieving each of NSF's Outcome Goals as well as the decision process leading to awards. Programs are evaluated on a three-year-cycle thus for FY 2000, the years 1997, 1998 and 1999 were the years most likely to be reviewed.

## NSF's Performance Goals

NSF has three mutually supportive sets of performance goals and measures for research and education outcomes, investment processes and management.

- ▶ **Outcome Goals** focus on the results of NSF's grants for research and education in science and engineering and relate directly to the mission of the agency. These Outcome Goals are also NSF's long-term strategic goals from NSF's Strategic Plan, FY 1997-2003. In FY 2000, a new goal addressing data quality measures for reporting Science Resource Studies (SRS) products was added.
- ▶ **Management Goals** address the efficiency and effectiveness of administrative activities in support of the NSF mission. Two new goals addressing electronic proposal processing and staff diversity were added in FY 2000.
- ▶ **Investment Process Goals** focus on the means and strategies NSF uses to achieve its Outcome Goals and sets performance targets for the investment processes by which NSF shapes its portfolio of awards. Several new goals were added in FY 2000 to address customer service, the integration of research and education, and diversity.

These three sets of goals are mutually supportive. The longer term desired results of NSF awards are reflected in the Outcome Goals. Achieving the desired Outcome Goals depends in part on the quality of the investment process, which is related to the efficiency and effectiveness of the agency's administration and management. The Investment Process Goals and the Management Goals are necessary to ensure that the longer term Outcome Goals will be achieved.

NSF's key strategy for success is through use of a rigorous merit review process in making awards for activities that will influence research and education in math, science and engineering, both directly and indirectly.

### How NSF's Performance Goals are Linked to Areas of Emphasis and to the Budget Structure

NSF's five Outcome Goals address the results of NSF's grants for research and education in science and engineering and relate directly to the mission of the agency. Outcome Goal 1 (*Discoveries at and across the frontier of science and engineering*) and Outcome Goal 2 (*Connections between discoveries and their use in service to society*) address NSF's research activities. Outcome Goal 3 (*A diverse, globally oriented workforce of scientists and engineers*) and Outcome Goal 4 (*Improved achievement in mathematics and science skills needed by all Americans*) address NSF's education activities. Outcome Goal 5 (*Timely and relevant information on the national and international science and engineering enterprise*) addresses NSF's legislative mandate to collect, interpret and analyze data on scientific and engineering resources, and to provide a source of information for federal policy formulation. This goal applies to both research and education activities.

NSF receives five Congressional appropriations: Research and Related Activities (RRA); Major Research Equipment (MRE); Education and Human Resources (EHR); and

Salaries and Expenses (S&E). The fifth appropriation funds the Office of Inspector General. Outcome Goals 1,2 and 5 are funded through the RRA and MRE appropriations, and Outcome Goals 3 and 4 are funded through the EHR appropriation. Because the S&E appropriation funds the internal administration and management of the agency, S&E funding applies to all the Outcome Goals, and as reflected in the Statement of Net Cost, is proportionately prorated between research and education programs based on each program's direct cost. For a schematic presentation of how NSF's performance goals are linked to its investment areas of emphasis—research and education—and to the budget structure, see page 76.

### Data Verification and Validation

In FY 2000, NSF engaged PricewaterhouseCoopers LLP (PwC), to verify and validate selected GPRA performance data as well the process through which supporting data was compiled. In their final reports, PwC concluded that NSF was reporting its GPRA measures with “sufficient accuracy such that any errors, should they exist, would not be significant enough to change the reader’s interpretation as to the Foundation’s success in meeting the supporting performance goal. . .” Furthermore, PwC concluded that NSF “relies on sound business processes, system and application controls, and manual checks of system queries to confirm the accuracy of reported data. We believe that these processes are valid and verifiable.”

## Performance Results

Compared with FY 1999, in FY 2000 NSF was much more rigorous in evaluating goal achievement. Options for grading were limited to either successful or not successful, and full justifications were required for successful grades to be counted for those goals that used qualitative measures. For the Outcome Goals, PricewaterhouseCoopers LLP verified and validated the goal achievement data tables. While NSF was successful in achieving 64% of its goals in FY 2000 as compared with achieving 78% for FY 1999, the results of the second year are very similar to the first. Positive trends were evident in some of the goals, indicating movement in the desirable direction. The areas identified as needing improvement continue to be: (1) use of both merit review criteria by reviewers and applicants; and (2) the customer service goals such as decreasing time to decision on proposals. Both these areas will be focal points in FY 2001.

### FY 2000 Performance Results

	Number of Goals Achieved
Outcome Goals	6 out of 8 (75%)
Management Goals	5 out of 6 (83%)
Investment Process Goals	7 out of 14 (50%); one goal did not apply
Total	18 out of 28 (64%)

## Results for NSF's Outcome Goals

Six of the eight Outcome Goals were achieved in FY 2000. In FY 1999, all Outcome Goals were achieved. Overall, results are similar to those obtained in FY 1999, with trends beginning to appear in this second year of assessment. Reports by external evaluators indicate that NSF successfully achieved the first two Outcome Goals (Goal 1 and Goal 2), and achieved with limited success the second two Outcome Goals (Goal 3 and Goal 4a). FY 2000 evaluators identified the same areas as having limited success and in need of improvement as in FY 1999. In general, programs are showing improvement over FY 1999 performance in the area of increasing diversity through increased participation of underrepresented groups, but reports indicate that the numbers are still lower than expected. The evaluators commented that increasing participation of underrepresented groups is an area needing more attention for NSF. Other areas needing further improvement include: (1) balance of portfolio by taking more risk; and (2) use of the NSF's merit review criteria by reviewers and applicants. Several reports noted that there are clear indications that use of the merit review criteria is evident in making decisions to fund or not fund applications. Common issues identified in some reports that may result in negative impact on program performance, in general, include workload and delays in processing proposals.

## Results for NSF's Management Goals

Five of NSF's six Management Goals were achieved in FY 2000, compared with three out of five in the prior year. Areas identified as improving include orientation and training of NSF staff using FastLane, NSF's electronic system for proposal submission, proposal review, and project reporting; and increasing the use of the new electronic Project Reporting System for project reporting by awardees. The one Management Goal that was not achieved involves the technological capability to submit proposals electronically. The difficulty encountered in FY 2000 which prevented this goal from being achieved was related to the establishing of protocols for electronic signature. NSF piloted two models for electronic certification of proposals and is currently assessing which model will best serve the agency.

## Results for NSF's Investment Process Goals

Seven of NSF's Investment Process Goals were achieved in FY 2000; seven were not achieved and, as in FY 1999, one of the facilities management goals did not apply because there were no construction projects completed during the year. In FY 1999, nine Investment Process Goals were achieved, four were not achieved and as previously mentioned, one did not apply. Areas identified as needing improvement include use of the new merit review criteria in some programs; identifying best practices and training for improving customer service; allowing three months time to prepare proposals; decreasing the time to decision; increasing the percentage of awards to new investigators; maintaining facility upgrades and construction on schedule; and keeping operating time lost due to unscheduled downtime to less than 10% of the total scheduled operating time.

The following chart lists NSF's FY 2000 GPRA goals and results. For a more detailed explanation of these goals and results, see the section on "Performance Results and Related Issues."

## Annual Performance Goals for Outcome Results

Outcome	FY2000 Annual Performance Goals	Aggregated Results
<p><b>Outcome Goal 1</b> Discoveries at and across the frontier of science and engineering</p>	<p><i>NSF is judged successful when</i></p> <p><b>Performance Goal 1</b> NSF awards lead to important discoveries; new knowledge and techniques, both expected and unexpected, within and across traditional disciplinary boundaries; and high-potential links across these boundaries, as judged by independent external experts.</p>	<p><b>Baseline:</b> Experiments using FY 1997 and FY 1998 information indicated successful achievement.  <b>FY 1999:</b> Goal achieved. Judged successful by external experts in all reports.  <b>FY 2000:</b> Goal achieved. Reports by external experts indicate NSF is successful in achieving this goal in the aggregate.</p>
<p><b>Outcome Goal 2</b> Connections between discoveries and their use in service to society</p>	<p><b>Performance Goal 2</b> The results of NSF awards are rapidly and readily available and feed, as appropriate, into education, policy development, or use by other federal agencies or the private sector, as judged by independent external experts.</p>	<p><b>Baseline:</b> Experiments using FY 1997 and FY 1998 information indicated successful achievement.  <b>FY 1999:</b> Goal achieved. Judged successful in the aggregate by external experts who noted improvements could be made in some programs.  <b>FY 2000:</b> Goal achieved. Judged successful in the aggregate by external experts who noted improvements could be made in some programs, as in FY 1999.</p>
<p><b>Outcome Goal 3</b> A diverse, globally-oriented workforce of scientists and engineers</p>	<p><b>Performance Goal 3</b> Participants in NSF activities experience world-class professional practices in research and education, using modern technologies and incorporating international points of reference; when academia, government, business, and industry recognize their quality; and when the science and engineering workforce shows increased participation of underrepresented groups, as judged by independent external experts.</p>	<p><b>Baseline:</b> Experiments using FY 1997 and FY 1998 information indicated successful achievement.  <b>FY 1999:</b> Goal achieved. Judged successful in most areas by external experts.  <b>FY 2000:</b> Goal judged successful in the aggregate by external experts with respect to achieving a globally oriented workforce, and not fully successful with respect to achieving diversity or increased participation of underrepresented groups, therefore goal is successful in a limited context but not fully achieved. FY 2000 results indicate improvements over FY 1999 performance, but improvements are still needed in the same areas identified in FY 1999.            For FY 2001, this goal has been incorporated into a broader goal that focuses on achieving NSF's desired outcome of a diverse, internationally competitive and globally engaged workforce of scientists, engineers, and well-prepared citizens.</p>
<p><b>Outcome Goal 4</b> Improved achievement in mathematics and science skills needed by all Americans</p>	<p><b>Performance Goal 4a</b> NSF awards lead to the development, adoption, adaptation, and implementation of effective models, products, and practices that address the needs of all students; well-trained teachers who implement standards-based approaches in their classrooms; and improved student performance in participating schools and districts, as judged by independent external experts.</p>	<p><b>Baseline:</b> Preliminary pilot efforts did not provide sufficient information to yield a valid baseline.  <b>FY 1999:</b> Goal achieved. Judged successful in the aggregate by external experts for programs to which goal applies.  <b>FY 2000:</b> Goal judged successful in a limited context in the aggregate by external experts. Where programs did not have funds directed to these objectives, external evaluators were uncertain how to assess performance, resulting in an assessment of less than successful or no assessment. In FY 2001, performance measures/indicators for this goal will be better defined to eliminate confusion by evaluators.</p>

## Annual Performance Goals for Outcome Results continued...

Outcome	FY2000 Annual Performance Goals	Aggregated Results
Outcome Goal 4 continued...	<i>NSF is judged successful when</i>	
	<p><b>Performance Goal 4b</b> Over 80% of schools participating in a systemic initiative program will: implement a standards-based curriculum in science and mathematics; further professional development of the instructional workforce; and improve student achievement on a selected battery of tests, after three years of NSF support.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
	<p><b>Performance Goal 4c</b> Through systemic initiatives and related teacher enhancement programs, NSF will provide intensive professional development experiences annually for at least 65,000 pre-college teachers.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
<p><b>Outcome Goal 5</b> Timely and relevant information on the national and international science and engineering enterprise.</p>	<p><b>Performance Goal 5a</b> Maintain FY 1999 gains in timeliness for an average of 486 days the time interval between reference period (the time to which the data refer) and reporting of data.</p> <p><b>FY 1995-96</b> Baseline .....540 days</p> <p><b>FY 1999-2000</b> Goal.....486 days Actual.....461 days</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
	<p><b>Performance Goal 5b</b> Establish a standard set of data quality measures for reporting of Science Resource Studies (SRS) products. Prepare reports on these measures for all SRS surveys and publish them in electronic formats to inform users of SRS data quality. New in FY 2000, replacing the FY 1999 goal on relevance.</p>	<p>New in FY 2000 <b>FY 2000:</b> Goal achieved.</p>
	<p><b>Baseline:</b> None prior to goal setting.</p>	

## Annual Performance Goals for Management

New and Emerging Technologies	Critical Factors for Success	Aggregated Results
<b>Electronic proposal submission</b>	<p><b>Management Goal 1</b> NSF will receive at least 60% of full proposal submissions electronically through FastLane.</p> <p>FY 1998 Baseline.....17% FY 1999 .....44% FY 2000 Goal .....60% FY 2000 Result.....81%</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
<b>Electronic proposal processing</b>	<p><b>Management Goal 2</b> By the end of FY 2000, NSF will have the technological capability to take competitive proposals submitted electronically through the entire proposal and award/declination process without generating paper within NSF.</p>	<p>New in FY 2000 <b>FY 2000:</b> Goal not achieved.</p> <p>In FY 2001, NSF will be testing use of an electronic signature for funding approval, the one remaining barrier to a completely electronic processing of awards.</p>
NSF Staff	Critical Factors for Success	Aggregated Results
<b>Diversity</b>	<p><b>Management Goal 3</b> In FY 2000, NSF will show an increase over 1997 in the total number of hires to science and engineering (S&amp;E) positions from underrepresented groups. (Revised goal.)</p> <p>FY 1997 Baseline: Of 54 S&amp;E hires, 22% were female and 19% were from underrepresented minority groups.</p> <p>FY 2000 Result: Of 113 S&amp;E hires, 35 were female and 19 were from minority groups. Compared with FY 1997 baseline, this represents a 120% increase in female hires and a 27% increase in minority hires.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
<b>Capability in use of information technology</b>	<p><b>Management Goal 4</b> By the end of FY 2000, all staff will receive an orientation to FastLane, and at least 80% of program and program support staff will receive practice in using its key modules.</p> <p><b>Orientation</b> FY 1999 .....80% FY 2000 Goal.....100% FY 2000 Result.....100%</p> <p><b>Training</b> FY 1999 .....43% FY 2000 Goal.....80% FY 2000 Result.....90%</p>	<p><b>FY 1999:</b> Goal not achieved. <b>FY 2000:</b> Goal achieved.</p>



Annual Performance Goals for Management continued...

Implementation of Management Reforms	Critical Factors for Success	Aggregated Results
<p><b>Year 2000 Compliance</b></p>	<p><b>Management Goal 5</b> NSF will complete all activities needed to address the Year 2000 problem for its information systems according to plan, on schedule and within budget. (Revised goal for FY 2000.)</p> <p><b>FY 2000 Result:</b> All activities needed to address the Year 2000 problem were completed according to plan, on schedule, and within budget.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
<p><b>Project Reporting System</b></p>	<p><b>Management Goal 6</b> During FY 2000, at least 85% of all project reports will be submitted through the new electronic Project Reporting System.</p> <p>FY 1999 .....59% FY 2000 Goal.....85% FY 2000 Result.....92%</p>	<p><b>FY 1999:</b> Goal achieved; target revised for FY 2000. <b>FY 2000:</b> Goal achieved.</p>

NSF supports of K-12 programs that directly impact nearly 12,000 students and over 80,000 teachers. Shown here are students at the El Paso Collaborative for Academic Excellence.



## Annual Performance Goals for NSF's Investment Process

Performance Area: Proposal and Award Processes	FY 2000 Annual Investment Process Performance Goals	Aggregated Results
<b>Use of Merit Review</b>	<p><b>Investment Goal 1</b> At least 90% of NSF funds will be allocated to projects reviewed by appropriate peers external to NSF and selected through a merit-based competitive process.</p> <p>FY 1998 (Baseline) .....95%                      FY 1999 .....95%                      FY 2000 Goal .....90%                      FY 2000 Result.....95%</p> <p>During FY 2000, OMB redefined what constitutes a merit-reviewed project and established a new target goal of 70-90%.</p> <p>Revised FY 2000 Goal.....80% (est.)                      FY 2000 Result.....87%</p>	<p><b>FY 1999:</b> Goal achieved.  <b>FY 2000:</b> Goal achieved.</p>
<b>Implementation of Merit Review Criteria</b>	<p><b>Investment Goal 2</b> NSF performance in implementation of the new merit review criteria is successful when reviewers address the elements of both generic review criteria appropriate to the proposal at hand and when program officers take the information provided into account in their decisions on awards, as judged by external independent experts.</p> <p>Results: About one-third of evaluation reports rated NSF programs as successful in their use of the new merit review criteria. In most cases where NSF was rated not fully successful, reviewers and applicants were not fully addressing the second criterion regarding the broader impacts of the proposed activity.</p>	<p><b>FY 1999:</b> Goal achieved.  <b>FY 2000:</b> Goal not achieved.</p> <p>Full implementation of goal is a priority in FY 2001. A number of measures are being taken to ensure its achievement, e.g., different on-screen pages have been provided in FastLane so reviewers are guided to address each merit review criterion separately; performance data will be collected from the FastLane database; etc.</p>
<b>Customer Service: General</b>	<p><b>Investment Goal 3</b> Identify possible reasons for customer dissatisfaction with NSF's merit review system and with NSF's complaint system.</p> <p>Results: NSF commissioned surveys in order to ascertain possible reasons for customer dissatisfaction.</p>	<p>New in FY 2000.  <b>FY 2000:</b> Goal achieved.</p>
<b>Customer Service: General</b>	<p><b>Investment Goal 4</b> Identify best practices and training necessary for NSF staff to conduct merit review and answer questions about the review criteria and process; identify best practices and training necessary for NSF staff to answer questions from the community and to deal with complaints in a forthright manner.</p> <p>Results: Goal underway but not completed in FY 2000; plans to finalize implementation in FY 2001.</p>	<p>New in FY 2000.  <b>FY 2000:</b> Goal not achieved.</p> <p>In FY 2001, staff will continue to develop models of best practices and staff training; NSF will pilot the best models at division level and provide specific customer service training to NSF staff.</p>

## Annual Performance Goals for NSF's Investment Process

Performance Area: Proposal and Award Processes	FY 2000 Annual Investment Process Performance Goals	Aggregated Results
<b>Customer service: General</b>	<p><b>Investment Goal 5</b> Improve NSF's overall American Customer Satisfaction Index (ACSI) compared to the FY 1999 index of 57 (on a scale of 0 to 100).</p> <p>FY 1999 .....57 FY 2000 Goal .....&gt;57 FY 2000 Result.....58</p>	<p>New in FY 2000. <b>FY 2000:</b> Goal achieved.</p> <p>Ongoing commitment to improve results; see previous Goals 3&amp;4</p>
<b>Customer service: Time to prepare proposals</b>	<p><b>Investment Goal 6</b> 95% of program announcements and solicitations will be available at least three months prior to proposal deadlines or target dates.</p> <p>FY 1998 Baseline .....66% FY 1999 .....75% FY 2000 Goal .....95% FY 2000 Result.....89%</p> <p>Although this goal was not achieved, there is notable improvement from prior year. In FY 2000, 89% of program announcement/solicitations achieved goal; approximately 8% missed the 90-day time limit by fewer than 5 days.</p>	<p><b>FY 1999:</b> Goal not achieved. <b>FY 2000:</b> Goal not achieved.</p> <p>In FY 2001, staff will limit number of special competitions requiring individual announcements; plan further in advance; initiate clearance process at least 6 months prior to anticipated deadlines; clearance procedures will be reviewed.</p>
<b>Customer service: Time to decision</b>	<p><b>Investment Goal 7</b> Maintain the FY 1999 goal to process 70% of proposals within six months of receipt, improving upon the FY 1998 baseline.</p> <p>FY 1998 Baseline .....59% FY 1999 .....58% FY 2000 Goal .....70% FY 2000 Result.....54%</p> <p>In FY 2000, 54% of proposals were processed within 6 months of receipt and an additional 35% were processed between 6 to 9 months of receipt.</p>	<p><b>FY 1999:</b> Goal not achieved. <b>FY 2000:</b> Goal not achieved.</p> <p>In FY 2001, staff will make more effective use of electronic mechanisms in conducting reviews; more closely track processing; eliminate overloads/bottlenecks.</p>
<b>Maintaining Openness in the System</b>	<p><b>Investment Goal 8</b> The percentage of competitive research grants going to new investigators will be at least 30%.</p> <p>FY 1998 Baseline .....27% FY 1999 .....27% FY 2000 Goal .....30% FY 2000 Result.....28%</p>	<p><b>FY 1999:</b> Goal not achieved. <b>FY 2000:</b> Goal not achieved.</p> <p>In FY 2001, NSF staff will pursue outreach efforts to promote awareness of NSF research opportunities; undertake analysis of trends (e.g., whether pool of new investigators is getting smaller, etc.) to determine whether goal needs to be modified.</p>

## Annual Performance Goals for NSF's Investment Process

Performance Area: Integration of Research and Education	FY 2000 Annual Investment Process Performance Goals	Aggregated Results
<p><b>In Proposals</b></p>	<p><b>Investment Goal 9</b> NSF will develop a plan and system to request that Principal Investigators (PIs) address the integration of research and education in their proposals, and develop and implement a system to verify that PIs have done so. (Revised goal.) No baseline.</p> <p>Result: In FY 2000, NSF implemented an electronic program announcement template clearance process (PAT) that is used by NSF staff to generate announcements and solicitations. Use of the PAT ensures that the integration of research and education is emphasized in all announcements and solicitations for PIs to address in their submissions.</p>	<p>New in FY 2000. <b>FY 2000:</b> Goal achieved.</p>
<p><b>In Reviews</b></p>	<p><b>Investment Goal 10</b> NSF will develop and implement a system/mechanism to request and track reviewer comments tied to merit review criterion #2, "What are the broader impacts of the proposed activity?" (Revised goal; no baseline.)</p> <p>Result: In FY 2000, screens in FastLane were redesigned so that reviewers can address each merit-review criterion separately. The performance data will be collected from the FastLane database. This will be fully implemented in FY 2001.</p>	<p>New in FY 2000. <b>FY 2000:</b> Goal achieved.</p>
Performance Area: Diversity	FY 2000 Annual Investment Process Performance Goals	Aggregated Results
<p><b>NSF Applicants</b></p>	<p><b>Investment Goal 11</b> NSF will identify mechanisms to increase the number of women and underrepresented minorities in the proposal applicant pool, and will identify mechanisms to retain that pool. (Revised goal; no baseline.)</p> <p>Result: NSF identified and put into place mechanisms to increase the diversity of NSF applicants.</p>	<p>New in FY 2000. <b>FY 2000:</b> Goal achieved.</p>

## Annual Performance Goals for NSF's Investment Process

Performance Area: Facilities Oversight	FY 2000 Annual Investment Process Performance Goals	Aggregated Results
<b>Construction and Upgrade</b>	<p><b>Investment Goal 12</b> Maintain 1999 goal to keep construction and upgrades within annual expenditure plan, not to exceed 110% of estimates.</p> <p>FY 1999 Result: Majority of facilities were within 110% of annual spending estimates.</p> <p>FY 2000 Result: Of the 11 construction and upgrade projects supported by NSF, all were within annual expenditure plans; most were under budget.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal achieved.</p>
	<p><b>Investment Goal 13</b> Maintain 1999 goal to keep construction and upgrades within annual schedule, total time required for major components of the project not to exceed 110% of estimates.</p> <p>FY 1999 Result: Majority of facilities on schedule.</p> <p>FY 2000 Result: Of the 11 construction/upgrade projects supported by NSF, seven were within the annual schedule goal.</p>	<p><b>FY 1999:</b> Goal achieved. <b>FY 2000:</b> Goal not achieved.</p> <p>NSF program managers will work more closely with project managers to ensure compliance in FY 2001.</p>
	<p><b>Investment Goal 14</b> For all construction and upgrade projects initiated after 1996, keep total cost within 110% of estimates made at the initiation of construction.</p>	<p><b>FY 1999 and FY 2000:</b> There were no completed projects, therefore, this goal did not apply.</p>
	<b>Operations</b>	<p><b>Investment Goal 15</b> Maintain 1999 goal to keep operating time lost due to unscheduled downtime to less than 10% of the total scheduled operating time.</p> <p>FY 1999 Result: Reporting database under development.</p> <p>FY 2000 Result: Of the 26 reporting facilities, 22 met the goal of keeping unscheduled downtime to below 10% of the total scheduled operating time.</p>

## Management Integrity: Controls, Compliance, and Challenges

The Federal Managers' Financial Integrity Act of 1982 (FMFIA) requires an annual review of the adequacy of NSF program and activity management controls. The NSF Management Controls Committee (MCC), chaired by the Chief Financial Officer, is responsible for oversight and for reporting of the Foundation's management and internal control program to the NSF Director on an annual basis.

The MCC requires that individual offices provide assurance statements each year on the FMFIA reviews within their own organizations on program and activity management controls. Individual assurance statements from each of NSF's Assistant Directors and Staff Office Directors serve as the primary basis for NSF's assurance that management controls are adequate, (Section 2 of FMFIA) and that NSF systems are in compliance with all applicable laws and administrative requirements, including OMB Circulars A-123 (*Management Accountability and Control*) and A-127 (*Financial Management Systems*) and Section 4 of FMFIA. The MCC asserted to the NSF Director that agency management controls and financial management systems taken as whole provide reasonable assurance that the objectives of FMFIA were achieved for FY 2000. The MCC also provided reasonable assurance that the NSF systems that are being used to compile information for NSF's annual GPRA Performance Report have been evaluated and provide adequate controls. It was also determined that agency assets were properly safeguarded.

Through an independent assessment conducted during the annual CFO Act audit, NSF internal accounting systems were found to be compliant with the Federal Financial Management Improvement Act of 1996 (FFMIA). During the FY 2000 certification process, the MCC did not identify any material weaknesses as defined by OMB guidance. The MCC evaluated the progress made on one repeat reportable condition in the FY 1999 financial statement audit related to the recording and accountability of property, plant, and equipment maintained by a NSF contractor. The MCC identified that credible progress to correct this reportable condition had been made in FY 2000. An independent assessment made during this year's annual CFO audit confirmed this condition has been resolved. The MCC reported several management challenges identified through the FMFIA assessment process which do not impact the internal controls of the Foundation, but warrant attention of senior management in order to maintain the long-term effectiveness of operations at NSF. These challenges include data and systems management activities, program management support to include training and outreach, recruitment and retention of staff, and access security to systems. The MCC will address these issues, most of which require long-term attention.

## IG's Statement of Management and Performance Challenges

As required by the Reports Consolidation Act of 2000, this report includes a statement by the Inspector General (IG) addressing NSF's most serious management and performance challenges. This statement can be found in the section, "Other Reporting Requirements." The IG's list of management and performance challenges addresses four primary areas: System and Data Management; Program Management; Staffing and Human Resource Management; and Security and Controls. As noted in the IG's statement, these management challenges have been acknowledged and are being addressed by NSF management.

Following the IG's statement is the Director's response.

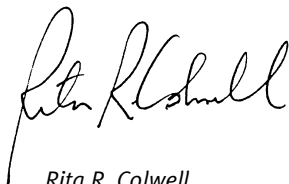
### The Director's Statement of Assurance for FY 2000

*Consistent with the provisions of the Reports Consolidation Act of 2000, and with the approval of the Office of Management and Budget, NSF has included the results of the management evaluations required by the Federal Managers' Financial Integrity Act (FMFIA) for the period ending September 30, 2000 into the annual Accountability Report.*

*Based on internal management evaluations, and in conjunction with results of independent financial statement audits, NSF can provide reasonable assurance that the objectives of Section 2 of FMFIA (internal controls) and Section 4 of FMFIA (financial management systems) have been achieved. NSF can also state that it is in substantial compliance with the Federal Financial Management Improvement Act (FFMIA) as well.*

*The NSF Management Controls Committee (MCC), under the chairmanship of the agency's Chief Financial Officer, provides continued senior executive attention to management control issues. The Office of the Inspector General, represented as an advisory member of the MCC, continues to provide useful and constructive suggestions for improving the agency's management controls and financial management policies and practices.*

*I am confident that NSF's significant accomplishments in the achievement of FMFIA objectives will continue and that level of assurance will be provided for FY 2000 and beyond.*



Rita R. Colwell

# Discussion and Analysis of the Financial Statements

The National Science Foundation is committed to providing quality financial management to all our stakeholders. We honor that commitment by preparing annual financial statements in conformity with generally accepted accounting principles and then subjecting the statements to an independent audit to ensure their reliability in assessing the performance of NSF. The results are an opinion on the fair presentation of those financial statements.

## FY 2000 Financial Statement Audit

The Chief Financial Officer's Act of 1990 (P.L. 101-576) requires that NSF prepare financial statements to be audited in accordance with Government Auditing Standards. The NSF Inspector General is statutorily responsible for the manner in which the audit of NSF's financial statements is conducted. KPMG LLP, an independent certified public accounting firm, was selected by the NSF Inspector General to perform the audit of NSF's FY 2000 financial statements.

In concurrence with the National Science Board Committee on Audit and Oversight and the NSF Chief Operating Officer, the NSF Inspector General and Chief Financial Officer established the NSF Audit Coordination Committee in 1998 to promote and encourage open communications to discuss audit issues. The Audit Coordination Committee, in coordination with both the Chief Financial Officer and the Inspector General, closely monitor the annual audit. The auditor issues a signed audit report that is presented to the Chair of the National Science Board and the NSF Director.

NSF received an unqualified opinion stating that the principal financial statements were fairly stated in all material respects. The independent auditors did not report any material weaknesses.

NSF's one previous reportable condition related to NSF's U.S. Antarctic Program's (USAP) Property, Plant and Equipment (PP&E) has been remedied for FY 2000. NSF management engaged the USAP contractor to increase their level of internal controls relative to the PP&E reporting provided to NSF for the annual financial statements. NSF management instituted a supervisory level of review and concurrence with accounting information prepared by contractor staff to identify and correct any errors or improper reporting before information is submitted to NSF. The auditors performed extensive interim testing at the contractor's site and year-end testing at NSF Headquarters and found this condition to be resolved.

One instance of a noncompliance with laws and regulations was reported; however, NSF management disagrees with this assessment. The expending of funds from the Research and Related Activities (RRA) appropriation to supplement potential shortfalls in



the Major Research Equipment (MRE) appropriation for a large international project was identified as a potential noncompliance with federal appropriations law and noted in a report issued by the NSF Inspector General's office in December 2000. NSF management believes that the allocation of expenditures between the RRA and MRE appropriations is within management discretion under the guiding principles of federal appropriations law. NSF management will seek to add more definitive appropriations law language in future MRE appropriations, to clarify that funds from other sources can be used to supplement MRE appropriations.

## Understanding the Financial Statements

NSF's current year financial statements and notes are presented in a comparative format providing financial information for FY 1999 as well as for FY 2000. Comparative financial statements were originally required for FY 2000 by Technical Amendments to OMB Bulletin 97-01, *Form and Content of Agency Financial Statements*, dated November 20, 1998. A subsequent Technical Amendment to OMB Bulletin 97-01, dated September 11, 2000 postponed this requirement for FY 2000. NSF has elected early implementation of comparative financial statements as is permitted and encouraged by the latest Technical Amendment.

The following provides a brief description of the nature of each required financial statement and its relevance to NSF. Some significant balances or conditions on each statement are noted to help clarify their link to NSF operations.

**Balance Sheet:** The Balance Sheet presents the combined amounts available for use by NSF (assets) against the amounts owed (liabilities) and amounts that comprise the difference (net position).

Three line items represent 99% of NSF's current year assets. *Fund Balance With Treasury* is funding available through the Department of Treasury accounts from which NSF is authorized to make expenditures and pay liabilities. *Property, Plant and Equipment* comprises capitalized property located at NSF headquarters and NSF-owned property in New Zealand and Antarctica that support the United States Antarctic Program. *Advances* are funds advanced to NSF grantees, contractors and minor amounts to NSF employees.

*Accounts Payable* and *Advances From Others* represent 96% of NSF's current year liabilities. *Accounts Payable* includes liabilities to grantees for their unreimbursed expenses and liabilities to NSF vendors for unreimbursed goods and services received. *Advances From Others* are amounts advanced to NSF from other federal entities for the administration of grants on their behalf. NSF maintains the expertise and automated systems for the administration of grants upon which other federal entities rely to assist in the administering of their grants.



## News – December 15, 1999

NSF PR 99-73

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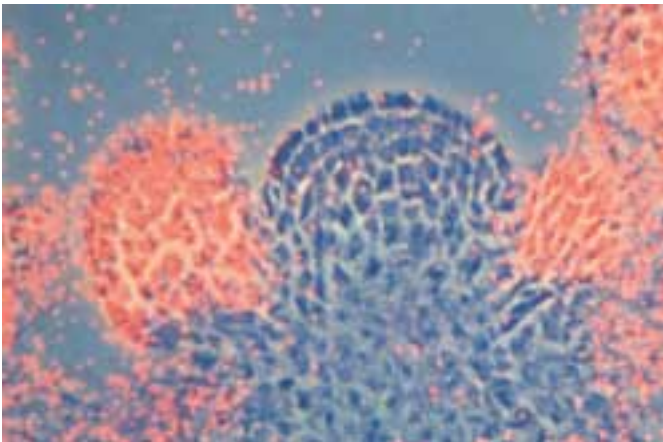
### Scientists Report First Complete DNA Sequence of Plant Chromosomes

Scientists involved in an international effort to sequence the entire genome of *Arabidopsis thaliana* have reported the first complete DNA sequence of a plant chromosome in the December 16, 1999, issue of the journal *Nature*. The results provide new information about chromosome structure, evolution, intracellular signaling and disease resistance in plants. The research conducted by U.S. participants was funded in large part by the National Science Foundation (NSF).

U.S. and European scientists in the *Nature* article report the complete DNA sequence of two of the five chromosomes of *Arabidopsis*. Scientists hope to use this information to understand the function of genes in important plant processes. These studies may ultimately lead to the development of plants that are more nutritious, produce useful chemicals, withstand flood and drought, or can grow on marginal lands.

*Arabidopsis thaliana* has emerged as a powerful tool for research in plant molecular biology and genetics. The short generation time and relatively compact genome of *Arabidopsis* make it an ideal model system for understanding numerous features of plant biology, including ones that are of significant value to agriculture, energy, environment, and health.

Working together, a U.S. consortium led by Cold Spring Harbor Laboratory scientist Richard McCombie, and the European Union Arabidopsis Genome Sequencing Consortium led by Michael Bevan of the John Innes Centre (Norwich, UK), completed the sequence of chromosome 4. A team of scientists at The Institute for Genomic Research in Rockville, Maryland, determined the sequence of chromosome 2. Together, these chromosomes comprise roughly one-third of the *Arabidopsis* genome.



The NSF-funded genome research project to map *Arabidopsis* will yield important information about how flowering plants interact with their environments. This is a close-up of *Arabidopsis* cells.

Martin Yanofsky/University of California at San Diego

**Comparative Discussion:** Analysis of significant changes from FY 1999 to FY 2000 incorporates an increase in *Fund Balance With Treasury; Intragovernmental Accounts Receivable; Accounts Receivable; General Property, Plant and Equipment; Other Intragovernmental Liabilities; Lease Liabilities*; and a reduction in *Cash*.

The increase in FY 2000 *Fund Balance with Treasury* was in correlation to the overall increase in budget authority. The FY 2000 *Intragovernmental Accounts Receivable* increase stems from an amount due on an interagency agreement on a NSF funded award. *Cash* decreased due to a reduction in the Trust Fund balance maintained.

FY 2000 *Accounts Receivable* increased due to the recording of a receivable from a NSF grantee. *General Property, Plant and Equipment* increased in FY 2000 mainly through additions to construction in progress related to polar program operations and a new phone system at NSF Headquarters in Arlington. The increase in *Intragovernmental Liabilities* was primarily due to an interagency On-line Payment and Collection (OPAC) liability. *Lease Liabilities* rose from the capitalization and liability recognition of several new leasing arrangements in FY 2000.

**Statement of Net Cost:** This statement presents the annual cost of operating NSF programs. The gross cost less any offsetting revenue for each NSF program is used to arrive at the net cost of specific program operations. Revenues are recognized from other federal agencies for grant administration work, which is completed during the year.

To arrive at full costing, NSF includes certain benefit costs for NSF retirees' benefits that will be paid by the Office of Personnel Management (OPM) for future periods. Amounts remitted to OPM by and for covered NSF employees do not generally cover the actual costs of the benefits those employees will receive after their careers. NSF calculates the costs paid by OPM on behalf of NSF and reports those costs as part of the cost of NSF operations.

A total of 96.1% of all current year NSF costs incurred were directly related to the support of NSF research and education programs. A small portion of these direct costs is for travel and salaries paid from programmatic funds. Costs incurred for indirect general operation activities such as salaries, training, activities related to the advancement of NSF information systems technology, and Inspector General activities account for 3.9% of the total current year NSF net cost of operations. NSF's commitment to administrative efficiency is evident in the relatively small portion of its total costs devoted to general operation activities.

**Comparative Discussion:** Analysis of changes in Net Cost from FY 1999 to FY 2000 shows a 15% increase in *Earned Revenues* and about a 4% increase in *Net Cost of Operations*. These increases are reflective of the agency's overall increase in Budget Authority.

**Statement of Changes in Net Position:** This statement presents those accounting items which caused the net position section of the balance sheet to change from the beginning to the end of the reporting period.

Ninety-nine percent of all current year financing sources are comprised of appropriated funds from Treasury accounts and donations received from private and foreign government sources used in the furtherance of the mission of the Foundation. The increase in unexpended appropriations is due mainly to an increase in unliquidated obligations from the prior fiscal year. Unliquidated obligations are obligations maintained by NSF for research and education for which expenses have not yet been recognized.

**Comparative Discussion:** Analysis of changes in Net Position from FY 1999 to FY 2000 indicates an 11% increase in ending Net Position. This change is largely due to an increase in unexpended appropriations or the amount of appropriation funding remaining at year-end. This increase is consistent with the overall increase to our budgetary authority. Another item of note is *Transfers in*. *Transfers in* for FY 1999 and FY 2000 relate to the Office of Polar Programs equipment received and the salvage value of the new satellite received from NOAA, respectively.

**Statement of Budgetary Resources:** This statement provides information on how budgetary resources were made available to NSF for the year and the status of those budgetary resources at year-end. The outlays reported on this statement reflect the actual cash disbursed for the year by Treasury for NSF obligations. Most obligations incurred by NSF are for science and engineering grants. This statement is in accordance with information presented in the FY 2000 President's Budget; however, this statement was prepared prior to completion of the FY 2002 President's Budget.

**Comparative Discussion:** Analysis of changes in Budgetary Resources from FY 1999 to FY 2000 show a 7% increase in *Total Budgetary Resources* and a 6% increase in *Total Outlays*. Both of these increases are consistent with our increase in budget authority.

**Statement of Financing:** This statement provides reconciliation between the resources available to NSF to finance operations and the net cost of operating NSF programs. *Net Cost Capitalized on the Balance Sheet* are additions to capital assets made during the fiscal year. *Costs That Do Not Require Resources* include depreciation and the operating gain or losses recognized upon the disposition of NSF capital assets.

**Comparative Discussion:** Analysis of changes in financing from FY 1999 to FY 2000 revealed a decrease in *Change in Unfilled Customer Orders* due to a strong current year effort to reduce outstanding reimbursable orders; an increase in *Net Costs Capitalized on the Balance Sheet* related to additions to construction in progress and a new phone system; and a decrease in *Loss on Disposition of Assets* since only minor assets were retired this year. Additionally, *Other Financing Sources* were eliminated in the current year; 1999 was the final year for funding of a court ordered dissolution of a NSF cooperative agreement relating to Internet domain names.

**Stewardship Investments:** Stewardship investments are NSF-funded investments that yield long term benefits to the general public. NSF investments in research and education yield quantifiable outputs shown in this statement as the number of awards made and the number of researchers and students supported in the pursuit of discoveries in science and engineering and in science and math education.

**Comparative Discussion:** Analysis of changes in Stewardship Investments from FY 1999 to FY 2000 showed consistent incremental increases in Research and Human Capital activities in support of NSF's overall mission as reported in monetary investments and measured outputs and outcomes.

## Budgetary Integrity: Resources & How They Are Used

NSF is primarily funded through five Congressional appropriations which totaled \$3.9 billion in FY 2000—a 5.4% increase from the FY 1999 prior year. Other FY 2000 revenue resources included \$86.0 million in reimbursable authority and appropriation transfers from other federal agencies and \$15.8 million in donations to support NSF activities. Additional resources were also received from the Department of Justice under The American Competitiveness and Workforce Improvement Act, enacted in 1998, which provides for a temporary increase in access to skilled personnel from abroad under the H-1B visa program. In FY 2000, NSF received \$48.6 million from H-1B visa fees, to support education activities and scholarships for financially disadvantaged students in computer science, engineering, and mathematics.

From its total budgetary resources, NSF obligated \$3.9 billion in FY 2000. As indicated in the Statement of Net Cost, the Foundation supports research activities and education activities. Research activities are funded through the Research and Related Activities appropriation and the Major Research Equipment appropriation. Education activities are funded primarily through the Education and Human Resources appropriation, although given the integrative nature of research and education, NSF research activities often include an education and training component. Administrative support for the Foundation as a whole is provided by the Salaries and Expenses appropriation. The Office of Inspector General is funded under its own separate appropriation.

For FY 2001, Congress provided NSF with total appropriations of \$4.4 billion, a 13.6% increase from the prior year. In addition, it is estimated that NSF will receive \$102.7 million from H1-B fees. Areas of emphasis for NSF investments in FY 2001 include Information Technology Research; Biocomplexity in the Environment; Nanoscale Science and Engineering; and plant genome research for economically significant crops. As part of the Federal Cyber Services Training and Education Initiative, NSF will establish a new Scholarships for Service program aimed at developing a cadre of computer systems and network national security specialists for the 21st century. Ongoing support will be provided to numerous activities, including the Children's Research Initiative, advanced technological



## News – July 25, 2000

NSF PR 00-51

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### Human-Computer Interaction Gets a Helping Hand, Eye and Voice

#### Research moves toward more-natural communication with computers

Computers are one step closer to “understanding” people, thanks to progress in human-computer interaction research at Rutgers University funded by the National Science Foundation (NSF). In a project called STIMULATE, researchers are developing systems that mimic forms of communication that humans use to interact, including eye contact, touch and voice. The experimental hardware and software may find uses in medicine, the military and other fields that could benefit from more natural forms of human-computer interaction across distributed networks.

a Window VR device which offers a rich 3D presentation, and allows the user to view the scene panoramically by rotating the display.



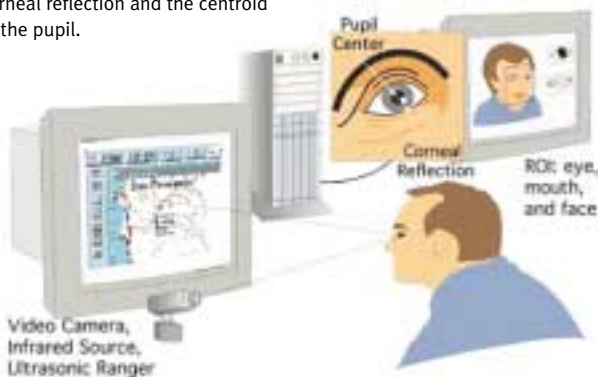
Computer scientists and electrical engineers at Rutgers have designed Multimodal Input Manager (MIM) hardware that simultaneously receives speech, gaze and tactile signals. Then special software called Fusion Agent assimilates the complex inputs so the computer may respond to subtle signals that humans routinely use to communicate with one another.

A pneumatic "force-feedback" glove, patented by Rutgers, weighs less than three ounces and reads gestures by detecting fingertip positions relative to the palm. It lets the user point at the computer screen, overriding signals from a gaze-tracking camera.

The MIM's gimbal-mounted unit sits on the desktop and rotates to detect where the user is looking. After a 10-second initial calibration of the infrared detectors, the user can direct a cursor just by looking at a section of the computer screen.

The software even detects lip movement to steer a microphone array for use in high-noise environments. For groups of users, the array can home in on the vocal source, even if the person speaking moves around the room.

Integrated gaze and face tracking system. A gimbal-mounted camera and IR light source tracks gaze by computing the angle between the corneal reflection and the centroid of the pupil.



MIM users at multiple locations can simultaneously interact with each other in a unified, 3D-work environment. Using the Java programming language, the project also produced new cWorld (for Collaborative World) software that lets teams of users construct those virtual environments.

The MIM has been tested by medical doctors for analyzing images of blood samples, X-rays and MRI tests. A physician can use the tactile, voice-recognition and eye-tracking inputs to rapidly separate distinct image characteristics, then vocally query the database for samples that match. The MIM hardware has also been field-tested by the Army National Guard to interact with remote staff in a disaster relief simulation.

education, Graduate Teaching Fellowships in K-12 Education, and education efforts directed toward science and engineering at historically black colleges and universities and at Tribal colleges. Among major research equipment supported are a new teraflop computer facility and a high altitude research aircraft for environmental research.

## Future Financial Trends and Business Events

NSF is continually evolving to take advantage of the most recent developments in technology, with an eye towards creating a more efficient, streamlined operation as well as providing better service to our diverse and growing customer base. NSF is making strides in enhancing employee work automation that will enable wider information sharing, expedite transaction flow and provide superior decision making information. Some of the efforts currently underway that will further enhance productivity and reduce costs for the Foundation, in both the near and long term are described below:

### Continue improvement in accounting and financial business delivery systems:

NSF will continue to migrate to a client/server platform with the development of the PAT/PIMS system, Electronic Travel System, and Integrated Payroll System. The implementation of these systems is part of our progress to implement the overall NSF e-business strategy. This continues to build upon agency-wide strategic goals to broaden access to new and emerging technologies for business applications.

- ▶ *PIMS/PAT Systems.* The Program Announcement Template (PAT) is a Web-based system that streamlines the preparation of program announcements and solicitations, allowing the user to “walk through” the development of an announcement/solicitation. The purpose of the Program Information Management System (PIMS) is to build a comprehensive relational database of program-related data and the mechanisms for updating, controlling, distributing and publishing that information to NSF web sites and other destinations. Workflow and clearance procedures will be supported and PIMS data will be available for use on Directorate, Division, and Program web pages. Full implementation of PIMS is expected in FY 2001.
- ▶ *Electronic Travel System.* A new Electronic Travel System (ETS) is being designed as a replacement to the current paper voucher process. ETS will provide electronic routing to staff members responsible for initiating travel authorization, approval, and vouchering, and to other offices whose approval or authorization is necessary. The prototype of ETS is currently under development.
- ▶ *Integrated Payroll System.* NSF is currently finalizing development of a new payroll system to replace the current legacy payroll system. The new Integrated Payroll System (IPAY) will be a client/server platform system that integrates the personnel operational system and the Time and Attendance System and interface with NSF’s Financial Accounting System (FAS). IPAY will provide electronic transfers of payroll and financial information to other government agencies and commercial financial institutions to minimize or eliminate manual payroll processes. This system will also have ESS (Employee Self Service)

capability, allowing employees to make certain payroll changes electronically. By reducing data entry requirements, eliminating manual reconciliation, and making data available to employees on-line via their personal computer, IPAY will enhance the entire payroll process. Full implementation of IPAY is expected in early FY 2001.

► *FastLane*. The FastLane system allows NSF to exchange information and facilitate business transactions with the external university research community via the Internet. Doing business with NSF is less expensive because customers have greater access to information, can tailor the way they do business with NSF, and utilize “smart-forms” which access NSF databases to minimize data entry. In addition to improving customer service to grantees, these features are able to reduce the time and effort needed to complete transactions within NSF. NSF plans, through FastLane updates, to continue to move toward a paperless business systems environment in which information is transferred and shared electronically rather than physically.

**Participate in government-wide efforts to improve the administration of all federal grant programs:** NSF will continue to take an active leadership role with the Grants Management Committee of the U.S. CFO Council, with its primary task to implement government-wide improvements in grant delivery services as required by the Federal Financial Assistance Management Improvement Act of 1999 (P.L. 106-107).

**Participate in intra-governmental business solutions.** NSF has developed a plan to incrementally address intra-governmental business transaction reporting for FY 2000 and the future. In FY 2000, NSF is confirming with the appropriate Fiduciary Agencies and attempting confirmations with our other large governmental partners. In looking towards the future, NSF is actively involved in two governmental workgroups, IGOTS (Intra-Governmental Transfer System group) and IGETS (Intra-Governmental Elimination Transaction group), to determine possible solutions and strategies for this far-reaching issue.

**Continued sponsorship of FinanceNet.** FinanceNet ([www.financenet.gov](http://www.financenet.gov)) is the Internet’s Web site for public financial management information. Established in 1994, FinanceNet is operated by NSF under the sponsorship of the U.S. Chief Financial Officers Council. As the virtual clearinghouse for federal financial management information, FinanceNet is a shared government-wide resource that produces various Internet services to facilitate communication and collaboration among government financial managers and related parties and provides a shared, interagency platform for seeking solutions in a virtual government environment for common government-wide problems. FinanceNet has proven to be an important interactive information tool. In FY 2000, there were nearly 175,000 subscribers to FinanceNet’s daily public and private list servers.

FinanceNet continues to expand its role to provide more service to the federal financial community. FinanceNet is now the federal government-wide web source for assets sales, and in the future will be expanded to include a searchable database of disposal assets by



class and category and development of an on-line auction Web site (e.gov) similar to several popular private sector on-line auction houses. FinanceNet also is being considered as a potential data clearinghouse for agencies to reconcile and report intragovernmental transaction information that is required by the U.S. Treasury to compile the annual Consolidated Government-wide Financial Statements.

## Limitations of the Financial Statements

Responsibility for the integrity and objectivity of the financial information presented in the financial statements lies with NSF management. The accompanying financial statements are prepared to report the financial position and results of the operations of NSF, pursuant to the requirements of Chapter 31 of the United States Code section 3515(b). While these statements have been prepared from the books and records of NSF in accordance with the formats prescribed in Office of Management and Budget Bulletin 97-01, *Form and Content of Agency Financial Statements*, these financial statements are in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records. The financial statements should be read with the realization that NSF is an agency of the executive branch of the United States Government, a sovereign entity. Accordingly, unfunded liabilities reported in the statements cannot be liquidated without the enactment of an appropriation, and ongoing operations are subjected to enactment of appropriations.



NSF support of informal science education programs reaches millions of people of all ages. NSF provided support for “Galapagos,” a 3-D film currently being shown at The Smithsonian Museum of Natural History. The film introduces the audience to biodiversity and evolution by sharing with viewers the experience of traveling with a team of researchers to a field site in the exotic Galapagos Islands.

*Photo ©1999 Imax Ltd.*



- ◀ The use of de-icing salts and chloride-containing additives to concrete causes significant damage to structures such as bridges, buildings and port structures. In a project supported by NSF at Carnegie Mellon University, researchers are developing an electronic chip that uses nuclear magnetic resonance (NMR) to detect the chloride ion in concrete. NMR chips placed throughout a bridge can warn engineers when the free chloride level in the concrete reaches a danger level so that steps can be taken to prevent corrosion and the loss of the structure, thus enabling the country to maintain its structures better and cheaper.

# Financial Statements

**National Science Foundation**  
**Balance Sheets**  
**As of September 30, 2000 and 1999**  
**(Amounts in Thousands)**

**ASSETS**

	<u>2000</u>	<u>1999</u>
Intragovernmental		
Fund Balance With Treasury (Note 2)	\$ 4,892,765	\$ 4,405,457
Accounts Receivable (Note 3)	3,997	975
Total Intragovernmental Assets	<u>4,896,762</u>	<u>4,406,432</u>
Cash	5,835	8,862
Accounts Receivable, Net (Note 3)	658	262
Advances (Note 4)	66,000	55,969
General Property, Plant and Equipment, Net (Note 5)	<u>134,501</u>	<u>101,471</u>
<b>Total Assets</b>	<b>\$ <u>5,103,756</u></b>	<b>\$ <u>4,572,996</u></b>

**LIABILITIES**

Intragovernmental Liabilities:		
Advances From Others	\$ 96,383	\$ 83,838
Other Intragovernmental Liabilities (Note 6)	1,219	760
Employee Benefits (Notes 7 and 8)	335	260
Total Intragovernmental Liabilities	<u>97,937</u>	<u>84,858</u>
Accounts Payable	266,478	233,005
Other Liabilities (Note 6)	3,890	3,561
Employee Benefits (Notes 7 and 8)	1,767	1,245
Lease Liabilities (Notes 7 and 9)	602	277
Accrued Annual Leave (Note 7)	<u>9,295</u>	<u>9,490</u>
<b>Total Liabilities</b>	<b>\$ <u>379,969</u></b>	<b>\$ <u>332,436</u></b>

**Commitments and Contingencies (Note 1)**

- -

**NET POSITION**

Unexpended Appropriations (Note 10)	\$ 4,537,935	\$ 4,068,398
Cumulative Results of Operations	<u>185,852</u>	<u>172,162</u>
<b>Total Net Position</b>	<b><u>4,723,787</u></b>	<b><u>4,240,560</u></b>
<b>Total Liabilities and Net Position</b>	<b>\$ <u>5,103,756</u></b>	<b>\$ <u>4,572,996</u></b>

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE STATEMENTS.*

**National Science Foundation**  
**Statements of Net Cost**  
For the Years Ended September 30, 2000 and 1999  
(Amounts in Thousands)

**Program Costs**

	<u>2000</u>	<u>1999</u>
Research Programs: (Note 11)		
Intragovernmental		
Program Cost	\$ 113,304	\$ 120,025
Salary & Expense and Inspector General Cost	28,652	51,385
Total Intragovernmental Cost	<u>141,956</u>	<u>171,410</u>
With the Public		
Program Cost	2,708,885	2,576,286
Salary & Expense and Inspector General Cost	113,426	72,722
Total Public Cost	<u>2,822,311</u>	<u>2,649,008</u>
 Total Research Program Cost	 2,964,267	 2,820,418
Less: Earned Revenues	76,372	68,734
Net Research Program Cost	<u>2,887,895</u>	<u>2,751,684</u>
 Education Programs: (Note 11)		
Intragovernmental		
Program Cost	2,262	7,340
Salary & Expense and Inspector General Cost	572	3,142
Total Intragovernmental Cost	<u>2,834</u>	<u>10,482</u>
With the Public		
Program Cost	594,255	591,984
Salary & Expense and Inspector General Cost	19,370	16,730
Total Public Cost	<u>613,625</u>	<u>608,714</u>
 Total Education Program Cost	 616,459	 619,196
Less: Earned Revenues	7,844	4,459
Net Education Program Cost	<u>608,615</u>	<u>614,737</u>
 <b>Net Cost of Operations</b>	 <b>\$ <u>3,496,510</u></b>	 <b>\$ <u>3,366,421</u></b>

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE STATEMENTS.*

**National Science Foundation**  
**Statements of Changes in Net Position**  
For the Years Ended September 30, 2000 and 1999  
(Amounts in Thousands)

	<u>2000</u>	<u>1999</u>
<b>Net Cost of Operations</b>	\$ <u>3,496,510</u>	\$ <u>3,366,421</u>
<b>Financing Sources:</b>		
Appropriations Used	3,465,530	3,310,548
Donations	39,371	36,570
Interest and Penalties	298	343
Imputed Financing	4,774	5,383
Transfers in (Note 12)	227	171
Other Financing Sources	<u>-</u>	<u>138</u>
<b>Total Financing Sources</b>	<u>3,510,200</u>	<u>3,353,153</u>
<b>Net Results of Operations</b>	\$ <u><u>13,690</u></u>	\$ <u><u>(13,268)</u></u>
Net Change in Cumulative Results of Operations	\$ 13,690	\$ (13,268)
Increase in Unexpended Appropriations	<u>469,537</u>	<u>373,728</u>
<b>Change in Net Position</b>	483,227	360,460
<b>Net Position-Beginning of Period</b>	<u>4,240,560</u>	<u>3,880,100</u>
<b>Net Position-End of Period</b>	\$ <u><u>4,723,787</u></u>	\$ <u><u>4,240,560</u></u>

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE STATEMENTS.*

**National Science Foundation**  
**Statements of Budgetary Resources**  
For the Years Ended September 30, 2000 and 1999  
(Amounts in Thousands)

	<u>2000</u>	<u>1999</u>
<b>Budgetary Resources</b>		
Budget Authority (Note 13)	\$ 4,001,238	\$ 3,739,026
Unobligated Balances - Beginning of Period	187,607	151,471
Spending Authority from Offsetting Collections	85,498	97,307
Adjustments:		
Recoveries of Prior Year Obligations	76,574	51,173
Cancelled Authority Returned to Treasury	<u>(26,689)</u>	<u>(17,795)</u>
	49,885	33,378
<b>Total Budgetary Resources</b>	<u>\$ 4,324,228</u>	<u>\$ 4,021,182</u>
<b>Status of Budgetary Resources:</b>		
Obligations Incurred	\$ 4,077,152	\$ 3,833,575
Unobligated Balances - End of Period - Available	144,593	101,502
Unobligated Balances - End of Period - Not Available	<u>102,483</u>	<u>86,105</u>
<b>Total Status of Budgetary Resources</b>	<u>\$ 4,324,228</u>	<u>\$ 4,021,182</u>
<b>Outlays</b>		
Obligations Incurred	\$ 4,077,152	\$ 3,833,575
Less: Spending Authority from Offsetting Collections and Recoveries from Prior Year Obligations	162,072	148,480
Obligated Balance, Net - Beginning of Period	4,217,513	3,799,257
Less: Obligated Balance, Net - End of Period	<u>4,645,202</u>	<u>4,217,513</u>
<b>Total Outlays</b>	<u>\$ 3,487,391</u>	<u>\$ 3,266,839</u>

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE STATEMENTS.*

**National Science Foundation**  
**Statements of Financing**  
For the Years Ended September 30, 2000 and 1999  
(Amounts in Thousands)

	<u>2000</u>	<u>1999</u>
<b>Obligations and Nonbudgetary Resources</b>		
Obligations Incurred	\$ 4,077,152	\$ 3,833,575
Less: Spending Authority for Offsetting		
Collections and Adjustments	(162,072)	(148,480)
Imputed Financing	4,774	5,383
Transfers In (Note 12)	227	171
Exchange Revenue Not in the Budget	(395)	(162)
Nonexchange Revenue Not in the Budget	310	283
Other Financing Sources	-	138
Total Obligations and Nonbudgetary Resources	<u>3,919,996</u>	<u>3,690,908</u>
<b>Resources That Do Not Fund Net Cost of Operations</b>		
Changes in Amount of Goods, Services, and Benefits		
Ordered but not yet Received or Provided	(392,449)	(340,364)
Change in Unfilled Customer Orders	1,592	23,882
Net Cost Capitalized on the Balance Sheet	(43,433)	(18,883)
Total Resources That Do Not Fund Net Cost of Operations	<u>(434,290)</u>	<u>(335,365)</u>
<b>Costs That Do Not Require Resources</b>		
Depreciation and Amortization	10,300	9,349
Loss on Disposition of Assets, Net	102	630
Total Costs that Do Not Require Resources	<u>10,402</u>	<u>9,979</u>
<b>Change in Financing Sources Yet to be Provided (Note 14)</b>	<u>402</u>	<u>899</u>
<b>Net Cost of Operations</b>	<u>\$ 3,496,510</u>	<u>\$ 3,366,421</u>

*THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE STATEMENTS.*



## Note 1. Summary of Significant Accounting Policies

### A. Reporting Entity

The National Science Foundation (“NSF” or “Foundation”) is an independent Federal agency created by the National Science Foundation Act of 1950 (P.L. 810-507). Its aim is to promote and advance scientific progress in the United States. The Foundation is responsible for the overall health of science and engineering across all disciplines. The Foundation is also committed to ensuring the nation's supply of scientists, engineers and science educators. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions in all parts of the United States. NSF, by law, cannot conduct research or operate research facilities. By award, NSF enters into relationships to fund the research operations conducted by grantees.

NSF is led by a presidentially-appointed director and governed by the National Science Board (“The Board”). This Board, composed of 24 members, represents a cross section of American leaders in science and engineering research and education, who are appointed by the President for six-year terms. The NSF Director is a member *ex officio* of the Board.

NSF is authorized by the general authority of the Foundation as found in United States Code Title 42, Section 1870 (f), to receive and use funds donated by others, if such funds are donated without restriction other than they be used in the furtherance of the mission of the Foundation. These donations are non-appropriated funds received from foreign governments, private companies, academic institutions, non-profit foundations, and individuals. Donated funds are accepted into the NSF trust fund account either as unrestricted or as earmarked contributions to specific NSF programs that the Foundation holds in trust for disbursement to its awardees. Foreign donations are deposited initially in a commercial bank as a convenient wire-transfer depository. When needed for program support purposes, they are transferred into an account at the U.S. Treasury. Interest earnings on the commercial bank deposits are used for the same purposes as the principal donations. Funds are made available for obligation as necessary to support NSF programs.

### B. Basis of Presentation

These financial statements have been prepared to report the financial position and results of operations of NSF as required by the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994. They have been prepared from the books and records of NSF in accordance with generally accepted accounting principles. These statements are therefore different from the financial reports, also prepared by NSF pursuant to OMB directives that are used to monitor and control NSF's use of budgetary resources.

### C. Basis of Accounting

The accompanying financial statements have been prepared using the accrual method in addition to recognizing certain budgetary transactions. Under the accrual method, revenues are recognized when earned and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Budgetary accounting facilitates compliance with legal constraints and controls over the use of federal funds. NSF records grant expenses from expenditure reports submitted by the grantees. Grantees may be on either an accrual or cash basis of accounting, and NSF records amounts as reported.

**D. Revenues and Other Financing Sources**

NSF receives the majority of its funding through Congressional appropriations. NSF receives both annual and multi-year appropriations that may be expended, within statutory limits. Additional amounts are obtained through reimbursements for services provided to and allocation transfers from other federal agencies and donations to the trust fund account. Also, NSF receives interest earned on overdue receivables and excess cash advances to grantees. The interest earned on overdue receivables is returned to the Treasury. Interest earned on excess cash advances to grantees is sent directly to the Department of Health and Human Services (HHS) in accordance with OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and Other Non Profit Organizations*.

Appropriations are recognized as a financing source at the time the related “funded” program or administrative expenses are incurred. Appropriations are recognized when used to purchase property, plant and equipment. “Unfunded” liabilities result from Liabilities Not Covered by Budgetary Resources and will be paid when future appropriations are made available for these purposes. Donations are recognized as revenues when funds are received. Revenues from reimbursable agreements are recognized when the services are provided and the related expenditures are incurred. Reimbursable agreements are mainly for grant administrative services provided by NSF on behalf of other federal agencies.

**E. Fund Balance with Treasury and Cash**

Cash receipts and disbursements are processed by the Treasury. The Fund Balance with Treasury is comprised primarily of appropriated funds that are available to pay current liabilities and finance authorized purchase commitments, but also includes non-appropriated funding sources from donations and other revenue received from an NSF cooperative agreement to register Internet domain names.

NSF has also established commercial bank accounts to hold some donated funds in trust, in interest bearing accounts as permitted by the contributors. These funds are collateralized by the bank through the U.S. Treasury.

**F. Accounts Receivable, Net**

Accounts Receivable consist of amounts due from governmental agencies, private organizations, and individuals. NSF establishes an allowance for accounts receivable from private sources that are deemed uncollectible, but regards amounts due from other federal agencies as fully collectible. Due to the small number and dollar amount of the private receivables, NSF analyzes each account independently to assess collectability and the need for an offsetting allowance.

**G. Advances**

Advances consist of advances to grantees, contractors and employees. Advance payments are made to grant recipients so that recipients may incur expenses related to the approved grant. Payments are only made within the amount of the recorded grant obligation and are intended to cover immediate cash needs. At the end of the fiscal year, the total amount paid to the grantees is compared with total grant expenditures for the year. Total grant expenditures for the year includes an estimate of fourth quarter amounts due and payable to grantees. The estimate is compiled using historical grantee expenditure data. For those

grantees with advance payments exceeding expenditures, the aggregate difference is reported as an advance. Additionally, for those grantees with expenditures exceeding advance payments, the aggregate difference is reported as a grant liability. Advances to contractors are payments made in advance of incurring expenses. Advances to employees are related to travel. Advances are reduced when documentation supporting expenditures is received.

#### H. General Property, Plant and Equipment (PP&E)

NSF capitalizes acquisitions with costs exceeding \$25,000 and useful lives exceeding two years. Acquisitions not meeting these criteria are recorded as operating expenses. NSF currently reports capitalized PP&E at original acquisition cost; assets acquired from General Services Administration's (GSA) excess property schedules are recorded at the value assigned by the donating agency; assets transferred in from other agencies are at the cost recorded by the transferring entity for the asset net of accumulated depreciation or amortization. Depreciation expense is calculated using the straight-line method. The economic life classifications for capitalized assets are as follows:

##### Equipment

<i>5 years</i>	computers and peripheral equipment, fuel storage tanks, laboratory equipment, and vehicles
<i>7 years</i>	communications equipment, office furniture and equipment, pumps and compressors
<i>10 years</i>	generators, Department of Defense equipment

##### Aircraft and Satellite

<i>7 years</i>	aircraft and satellite
----------------	------------------------

##### Buildings and Structures

<i>31.5 years</i>	buildings and structures placed in service prior to 1993
<i>39 years</i>	buildings and structures placed in service after 1993

##### Leasehold Improvements

The economic life of Leasehold Improvements is amortized over the number of years remaining on the lease for the NSF headquarters building. In FY 2000, Leasehold Improvements completed during FY 2000 were amortized over 13 years, which represents the remaining years on NSF's lease with GSA.

Property, Plant, and Equipment balance consists of Equipment, Aircraft and Satellite, Buildings and Structures, Leasehold Improvements, and Construction in Progress (CIP). These balances are comprised of PP&E maintained "in-house" by NSF to support agency operations and PP&E under the U.S. Antarctic Program (USAP). The majority of USAP property is currently the custodial responsibility of Raytheon Technical Services Company, the NSF contractor for the program. Additionally, the U.S. Navy's Space and Naval Warfare Center also has custodial responsibility for some USAP property.

The NSF headquarters building is leased from GSA. NSF is billed by GSA for the leased space as rent based upon estimated lease payments made by GSA plus an administrative fee. The cost of the headquarters building is not capitalized by NSF. The cost of leasehold improvements performed by GSA are financed with NSF appropriated funds. The leasehold improvements are capitalized by NSF as they are transferred from CIP upon completion, if the leasehold improvements meet NSF's capitalization threshold. Amortization is calculated using the straight-line method over the lesser of their useful lives and the unexpired lease term.

NSF's PP&E capitalization policy reflects agency specific guidance provided by the Federal Accounting Standards Advisory Board (FASAB) in 1997, which stated that PP&E held under the USAP should be capitalized, as NSF maintained "operational" responsibility for the support of science activities in Antarctica. However, FASAB agreed that PP&E used by awardees for research and development activities, which NSF is prohibited by statute from operating, should not be included in NSF asset balances. Although NSF retains title to the property to facilitate transfer to subsequent awardees, operation and control of this PP&E are transferred to awardees responsible for coordinating, directing and conducting research utilizing the PP&E resources. Current standards do not fully address this situation. Until standards are developed to further address this issue, FASAB has issued interim guidance that considers NSF's ownership interest in this PP&E to be "limited in practice to an interest similar to a reversionary interest," and directed the agency to exclude these items from the balance sheet. Costs incurred to acquire such PP&E are treated as expense and shown as costs and investments in research and development in the required supplemental stewardship information.

#### **I. Advances from Others**

Advances from Others consist of amounts obligated and advanced by other federal entities to NSF for grant administration and other services to be furnished under reimbursable agreements. Balances at the end of the year are adjusted by an allocated amount from the fourth quarter grantee expenditure estimate described under Note H, Advances. The amount to be allocated is based on a percentage of the reimbursable grant expenditures, by partner agencies to NSF, to the total grant expenditures.

#### **J. Accounts Payable**

Accounts Payable consist of grant liabilities and liabilities to commercial vendors. Grant liabilities are grantee expenses not yet reimbursed by NSF. Accounts payable to commercial vendors are expenses for goods and services received but not yet paid by NSF at the end of the fiscal year. At year end, NSF accrues for the amount of estimated unreimbursed grantee expenses and estimated unpaid expenses to commercial vendors.

#### **K. Annual, Sick and Other Leave**

Annual leave is accrued as it is earned, and the accrual is reduced as leave is taken. Each year, the balance in the accrued annual leave account is adjusted to reflect current pay rates. To the extent current and prior-year appropriations are not available to fund annual leave earned but not taken, funding will be obtained from future Salaries and Expenses appropriations. Sick leave and other types of nonvested leave are expensed as taken.

#### **L. Employee Benefits**

A liability is recorded for estimated and actual future payments to be made for workers' compensation pursuant to the Federal Employees' Compensation Act (FECA). The liability consists of the net present value of estimated future payments calculated by the U.S. Department of Labor (DOL) and the actual unreimbursed cost paid by DOL for compensation paid to recipients under FECA. The actual costs incurred are reflected as a liability because NSF will reimburse DOL two years after the actual payment of expenses. Future Salaries and Expenses Appropriations will be used for DOL's estimated reimbursement.

### M. Net Position

Net position is the residual difference between assets and liabilities and is composed of unexpended appropriations and cumulative results of operations. Unexpended appropriations represent the amount of unobligated and unexpended budget authority. Unobligated balances are the amount of appropriations or other authority remaining after deducting the cumulative obligations from the amount available for obligation. Cumulative results of operations is the net result of NSF's operations since inception.

### N. Retirement Plan

In fiscal year 2000, approximately 35 percent of NSF employees participated in the Civil Service Retirement System (CSRS), to which NSF made matching contributions equal to 8.51 percent of pay. On January 1, 1987, the Federal Employees Retirement System (FERS) went into effect pursuant to the Federal Employees' Retirement System Act of 1986 (5 U.S.C. 8401-79). Most employees hired after December 31, 1983 are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984 can elect to either join FERS and Social Security or remain in CSRS. A primary feature of FERS is that it offers a thrift savings plan to which NSF automatically contributes 1 percent of pay and matches employee contributions up to an additional 4 percent of pay. NSF also contributes the employer's matching share for Social Security for FERS participants.

Although NSF funds a portion of the benefits under FERS and CSRS relating to its employees and withholds the necessary payroll deductions, the agency has no liability for future payments to employees under these plans, nor does NSF report CSRS, FERS, or Social Security assets, or accumulated plan benefits, on its financial statements. Reporting such amounts is the responsibility of the Office of Personnel Management (OPM) and FERS. In fiscal year 2000, NSF's contributions to CSRS and FERS were \$3,215,242 and \$5,124,803, respectively. In fiscal year 1999, NSF's contributions to CSRS and FERS were \$2,854,178 and \$4,170,618, respectively.

SFFAS No.5, *Accounting for Liabilities of the Federal Government*, requires employing agencies to recognize the cost of pensions and other retirement benefits during their employees' active years of service. OPM actuaries determine pension cost factors by calculating the value of pension benefits expected to be paid in the future, and communicate these factors to the agency for current period expense reporting. Information was also provided by OPM regarding the full cost of health and life insurance benefits. In fiscal year 2000, NSF, utilizing cost factors dated October 16, 2000, recognized \$2,108,336 of pension expenses, \$2,649,643 of post-retirement health benefits expenses and \$15,999 of post-retirement life insurance expenses, beyond amounts actually paid. NSF recognized an offsetting revenue of \$4,773,978 as an imputed financing source to the extent that these intragovernmental expenses will be paid by OPM. In fiscal year 1999, NSF recognized \$2,733,256 of pension expenses, \$2,635,415 of post-retirement health benefits expenses and \$14,503 of post-retirement life insurance expenses, beyond amounts actually paid. NSF recognized an offsetting revenue of \$5,383,174 as imputed financing sources to the extent that these intragovernmental expenses will be paid by OPM.

**O. Commitments and Contingencies****Commitments:**

Commitments are contractual agreements involving financial obligations. NSF is committed for goods and services that have been ordered, but have not yet been delivered.

**Contingencies: Claims and Lawsuits**

NSF is a party to various legal actions and claims brought against it. In the opinion of NSF management and legal counsel, the ultimate resolution of the actions and claims will not materially affect the financial position or operations of the Foundation. NSF discloses and recognizes the loss in the financial statements when claims are expected to result in a material loss, whether from the Foundation's appropriations or the "Judgment Fund" administered by the Department of Justice under Section 1304 of Title 31 of the United States Code, and, the payment amounts can be reasonably estimated.

Claims and lawsuits have also been made and filed against awardees of the Foundation by third parties. NSF is not a party to these actions and NSF believes there is no possibility that NSF will be legally required to satisfy such claims. Judgments or settlements of the claims against awardees that impose financial obligation on them may be claimed as costs under the applicable contract, grant, or cooperative agreement and thus may affect the allocation of program funds in future fiscal years. In the event that the likelihood of loss on such claims by awardees becomes probable, these amounts can be reasonably estimated and Foundation management determines that it will probably pay them, NSF will recognize these potential payments as expenses.

**P. Use of Estimates**

The preparation of the accompanying financial statements requires management to make estimates and assumptions about certain estimates included in the financial statements. Actual results will invariably differ from those estimates.

**Q. Tax Status**

NSF, as a federal agency, is not subject to federal, state, or local income taxes and, accordingly, no provision for income taxes is recorded.

**Note 2. Fund Balance with Treasury**

Fund Balance with Treasury consisted of the following components as of September 30, 2000 and 1999:

(Table Amounts in Thousands)

	<u>2000</u>			<u>1999</u>	
	Appropriated Fund	Trust Fund	Other Funds	Total Total	
<b>Obligated</b>	\$4,607,596	\$8,879	\$28,406	\$4,644,881	\$4,217,154
<b>Unobligated Available</b>	142,984	21,243	347	164,574	110,637
<b>Unobligated Unavailable</b>	82,823	-	487	83,310	77,666
<b>Total Fund Balance</b>	<u>\$4,833,403</u>	<u>\$30,122</u>	<u>\$29,240</u>	<u>\$4,892,765</u>	<u>\$4,405,457</u>

“Other Funds” consists of \$28,405,674 and \$47,021,836, as of September 30, 2000 and 1999, respectively, received from a corporation that registered second level Internet domain names under NSF cooperative agreement and nonexpenditure transfer authorizations, deposits, holdings, and miscellaneous receipt accounts. The nonexpenditure transfer authorizations are appropriation allocations from other government agencies and include 15,826,073 and 21,267,055 Indian rupees converted as of September 30, 2000 and 1999, respectively, to U.S. dollars at the prevailing Treasury rate of 45.6 rupees to \$1 US, or \$347,063, and 43.25 rupees to \$1 US, or \$491,724, respectively.

The Trust Fund includes amounts donated to NSF. Other Funds and Trust Funds are restricted for intended purposes. Unavailable balances include recovered expired appropriations and other amounts related to expired authority and holdings, which are unavailable for NSF use.

### Note 3. Accounts Receivable, Net

#### Intragovernmental

The Intragovernmental Accounts Receivable consists of reimbursements and repayments due from other government agencies. As of September 30, 2000 and 1999, the amount of intragovernmental accounts receivable was \$3,996,660 and \$974,504, respectively.

#### Public

As of September 30, 2000 and 1999, Accounts Receivable (net) due from other private organizations and individuals consisted of:

*(Table Amounts in Thousands)*

	<u>2000</u>	<u>1999</u>
<b>Accounts Receivable</b>	\$8,841	\$560
<b>Allowance for Uncollectible Accounts</b>	<u>(8,183)</u>	<u>(298)</u>
<b>Net Amount Due</b>	<u>\$658</u>	<u>\$262</u>

As of September 30, 2000 and 1999, the reconciliation of the allowance for uncollectible accounts is as follows:

*(Table Amounts in Thousands)*

	<u>2000</u>	<u>1999</u>
<b>Beginning Allowance</b>	\$298	\$90
<b>Additions</b>	7,929	208
<b>Reduction (write-offs)</b>	<u>(44)</u>	<u>-</u>
<b>Ending Allowance</b>	<u>\$8,183</u>	<u>\$298</u>

An allowance was set up in fiscal year 2000 for \$7,929,465, which represents the allowance for a receivable from a grantee that filed for dissolution. The receivable has been forwarded to the Department of Justice, as required by OMB Circular A-129 and U.S.C. 31 Section 3711, for concurrence on the termination of debt.

**Note 4. Advances**

As of September 30, 2000 and 1999, Advances consisted of the following components:

(Amounts in Thousands)

	<u>2000</u>	<u>1999</u>
<b>Advances to Grantees</b>	\$50,634	\$53,905
<b>Advances to Contractors</b>	15,359	2,064
<b>Advances to Employees</b>	<u>7</u>	<u>-</u>
<b>Total Advances</b>	<u>\$66,000</u>	<u>\$55,969</u>

**Note 5. General Property, Plant and Equipment, Net**

The components of General Property, Plant and Equipment as of September 30, 2000 and 1999 were:

(Amounts in Thousands)

	<u>2000</u>		<u>1999</u>	
	<u>Acquisition Cost</u>	<u>Accumulated Depreciation</u>	<u>Net Book Value</u>	<u>Net Book Value</u>
<b>Equipment</b>	\$57,840	\$46,250	\$11,590	\$7,824
<b>Aircraft and Satellite</b>	94,206	82,278	11,928	16,383
<b>Buildings and Structures</b>	83,927	34,413	49,514	51,446
<b>Construction in Progress</b>	<u>61,469</u>	<u>-</u>	<u>61,469</u>	<u>25,818</u>
<b>Total PP&amp;E</b>	<u>\$297,442</u>	<u>\$162,941</u>	<u>\$134,501</u>	<u>\$ 101,471</u>

**Note 6. Other Liabilities**

Other Liabilities represent current accrued employer contributions for payroll and benefits, disbursements in transit, accrued payroll and benefits, and various employee related liabilities for payroll and benefit deductions. As of September 30, 2000 and 1999, Other Liabilities consisted of the following:

(Amounts in Thousands)

	<u>2000</u>	<u>1999</u>
Intragovernmental		
<b>Employer Contributions for Payroll Benefits</b>	\$219	\$800
<b>Disbursements in Transit</b>	<u>1,000</u>	<u>(40)</u>
<b>Total Other Intragovernmental Liabilities</b>	<u>1,219</u>	<u>760</u>
Other Liabilities		
<b>Accrued Payroll and Benefits</b>	3,312	2,173
<b>State and Other Income Taxes Withheld</b>	480	332
<b>Disbursements in Transit</b>	91	1,050
<b>Employee Deductions for U.S. Savings Bonds</b>	<u>7</u>	<u>6</u>
<b>Total Other Liabilities</b>	<u>\$3,890</u>	<u>\$3,561</u>



**Note 7. Liabilities Not Covered by Budgetary Resources**

Certain liabilities are not funded by current budgetary resources. As of September 30, 2000 and 1999, Liabilities Not Covered by Budgetary Resources consisted of the following:

*(Amounts in Thousands)*

	<u>2000</u>	<u>1999</u>
<b>Intragovernmental: Employee Benefits</b>	\$335	\$260
<b>Employee Benefits</b>	1,767	1,245
<b>Accrued Annual Leave</b>	<u>9,295</u>	<u>9,490</u>
<b>Liabilities Not Covered by Budgetary Resources to Fund Cost of Operations</b>	\$11,397	\$10,995
<b>Lease Liabilities</b>	<u>602</u>	<u>277</u>
<b>Total Liabilities Not Covered By Budgetary Resources</b>	<u>\$11,999</u>	<u>\$11,272</u>

**Note 8. Employee Benefits**

Employee Benefits consisted of the following components as of September 30, 2000 and 1999:

*(Table Amounts in Thousands)*

	<u>2000</u>	<u>1999</u>
<b>Intragovernmental: Unreimbursed Actual Costs</b>	\$335	\$260
<b>Estimated Liability</b>	<u>1,767</u>	<u>1,245</u>
<b>Total Workers' Compensation Benefits</b>	<u>\$2,102</u>	<u>\$1,505</u>

For fiscal years 2000 and 1999, these amounts represent \$355,204 and \$260,218 respectively, of unreimbursed cost to the Department of Labor (DOL) for actual compensation paid to recipients under Federal Employee's Compensation Act (FECA). FECA provides income and medical cost protection to cover Federal employees injured on the job or who have a work-related injury or occupational disease, and beneficiaries of employees whose death is attributable to a job related injury or occupational disease. The U.S. Department of Labor initially pays valid claims and then bills the employing federal agency.

As of September 30, 2000 and 1999, the estimated liability of \$1,767,000 and \$1,245,000, respectively, are for future worker's compensation calculated by DOL and includes the expected liability for death, disability, medical, and miscellaneous costs for approved compensation cases. The liability is determined using a method that utilizes historical benefit payment patterns related to a specific incurred period and annual benefit payments discounted to present value using OMB's economic assumptions for 10-year Treasury notes and bonds. To account for the effects of inflation on the liability, wage and medical inflation factors are applied to the calculation of future benefits.

**Note 9. Lease Liabilities**

NSF maintains capital leases for certain equipment. The lease periods range from four to five years and the capitalized cost of the lease payments are amortized over the life of the lease. As of September 30, 2000 and 1999, the capitalized cost of equipment under lease was approximately \$797,000 and \$359,000, respectively. Related accumulated amortization as of September 30, 2000 and 1999, was approximately \$211,000 and \$99,000, respectively. Capital lease liabilities are considered unfunded as of September 30, 2000 and 1999. As of September 30, 1999, the total Capital Lease Liability was \$277,000. Future payments under capital leases as of September 30, 2000 are:

*(Table Amounts in Thousands)*

<b>Future Lease Payments:</b>	
<i>Fiscal Year 2001</i>	209
<i>Fiscal Year 2002</i>	209
<i>Fiscal Year 2003</i>	165
<i>Fiscal Year 2004</i>	123
<i>Fiscal Year 2005</i>	<u>27</u>
<b>Total</b>	733
<b>Less: Imputed Interest</b>	<u>131</u>
<b>Total Capital Lease Liability</b>	<u><u>\$602</u></u>

**Note 10. Unexpended Appropriations**

Unexpended Appropriations consisted of the following components as of September 30, 2000 and 1999:

*(Amounts in Thousands)*

	<u>2000</u>	<u>1999</u>
<b>Unobligated:</b>		
<i>Available</i>	\$143,330	\$96,392
<i>Unavailable</i>	83,310	77,665
<b>Undelivered Orders</b>	<u>4,311,295</u>	<u>3,894,341</u>
<b>Total Unexpended Appropriations</b>	<u><u>\$4,537,935</u></u>	<u><u>\$4,068,398</u></u>

The Undelivered Orders balance does not include the Undelivered Orders balances of the Trust Fund account, reimbursable agreements with other agencies, and other funds.

## Note 11. Statement of Net Cost

### Major Program Descriptions

NSF's primary business is to make merit-based grants and cooperative agreements to individual researchers and groups, in partnership with colleges, universities, and other public, private, state, local, and federal institutions, throughout the U.S. By providing these resources, NSF contributes to the health and vitality of the U.S. research and educational systems, which enables and enhances the nation's capacity to sustain growth and prosperity. These grants are managed through eight programmatic organizations within NSF that review and evaluate competitive proposals submitted by the science and engineering community for its consideration. NSF is a singular entity for net cost reporting purposes. The NSF programmatic directorates are for Education and Human Resources; Biological Sciences; Computer and Information Science and Engineering; Geosciences; Mathematical and Physical Sciences; Social, Behavioral and Economic Sciences; Engineering; and the Office of Polar Programs.

These NSF organizations make investments in science and engineering in two functional program areas: 1) research projects and related programs and 2) education programs. Approximately 95 percent of NSF's costs are directly related to these investments. A third investment is made to support management and administration activities of NSF. All costs are assigned to these two functional program areas.

Research programs provide investments in cutting edge research that yields new discoveries. These investments help to maintain the nation's capacity to excel in science and engineering, particularly in academic institutions. NSF provides support for large, state-of-the-art multi-user research facilities that otherwise would be unavailable to academic scientists, and for staff and support personnel to assist scientists and engineers in conducting research at facilities.

Education programs help ensure that an adequate, well-prepared workforce of scientists and engineers can maintain leadership in science and technology, both now and in the future and help all students to achieve the mathematics and science skills needed to thrive in an increasingly technological society.

Salary & Expenses and Inspector General (IG) investments provide for salaries and benefits of persons employed at the NSF; general operating expenses, including key activities to advance the NSF information systems technology and to enhance staff training, audit and Inspector General activities, and OPM and DOL benefits costs paid on behalf of NSF. Costs such as depreciation of NSF assets are also included. These indirect costs are allocated to NSF programs based on each program's direct costs.

In accordance with OMB Bulletin 97-01, as amended, cost incurred for services provided to other federal entities are reported in the full cost of NSF programs and are identified as "intragovernmental." All earned revenues are funding sources provided through reimbursable agreements with other federal entities and are retained by NSF. Earned revenues are recognized when the related program or administrative expenses are incurred and are deducted from the full cost of the programs to arrive at the net cost of operating NSF's programs.

**Gross Cost and Earned Revenue by Budget Functional Classification**

Total Gross Cost and Earned Revenue by Budget Functional Classification for fiscal years 2000 and 1999 were as follows:

*(Table Amounts in Thousands)*

<u>Budget Functional Classification</u>	<u>Gross Cost</u>	<u>2000</u>	
		<u>Earned Revenue</u>	<u>Net Cost</u>
NSF – General Science, Space and Technology (Code 250)	<u>\$3,580,726</u>	<u>\$84,216</u>	<u>\$3,496,510</u>

<u>Budget Functional Classification</u>	<u>Gross Cost</u>	<u>1999</u>	
		<u>Earned Revenue</u>	<u>Net Cost</u>
NSF – General Science, Space and Technology (Code 250)	<u>\$3,439,614</u>	<u>\$73,193</u>	<u>\$3,366,421</u>

Intra-governmental Gross Cost and Earned Revenue by Budget Functional Classification for fiscal years 2000 and 1999 were as follows:

*(Table Amounts in Thousands)*

<u>Budget Functional Classification</u>	<u>Gross Cost</u>	<u>2000</u>	
		<u>Earned Revenue</u>	<u>Net Cost</u>
NSF – General Science, Space and Technology (Code 250)	<u>\$144,790</u>	<u>\$84,216</u>	<u>\$60,574</u>

<u>Budget Functional Classification</u>	<u>Gross Cost</u>	<u>1999</u>	
		<u>Earned Revenue</u>	<u>Net Cost</u>
NSF – General Science, Space and Technology (Code 250)	<u>\$181,892</u>	<u>\$73,193</u>	<u>\$108,699</u>

**Note 12. Transfers In**

In fiscal year 2000, the National Oceanic and Atmospheric Administration transferred to NSF the control over a satellite (GOES-3) with a book value of \$226,805 (cost \$22,680,503; accumulated depreciation \$22,453,695). The GOES-3 provides wideband communications in support of scientific research and mission operations for NSF's U.S. Antarctic Program (USAP). In fiscal year 1999, equipment valued at \$171,007 was transferred to the USAP from the United States Navy for use in the Antarctic.

**Note 13. Budget Authority**

Budget Authority includes \$39,668,734 and \$36,912,547 of donations and interest as of September 30, 2000 and 1999, respectively. Budget Authority was increased for non-expenditure transfers from the U.S. Agency for International Development for \$15,675,000 in 2000, and \$5,000,000 in 1999. Budget Authority as of September 30, 2000 and 1999 was also adjusted for Congressional initiated rescissions contained in P.L. 106-113 totaling \$14,866,000 and P.L. 106-51 totaling \$807,000, respectively.

NSF maintains permanent indefinite appropriations for Research and Related Activities - 49x0100, Major Research Equipment - 49x0551, H-1B Nonimmigrant Petitioner fees - 49x5176, and Trust Fund donations - 49x8960.

The status of Budgetary Resources as of September 30, 2000 and 1999, consisted of Budgetary Resources obligated of \$4,077,151,700 and \$3,833,574,814, respectively, available authority of \$144,593,277 and \$101,502,398, respectively, and unavailable authority of \$102,482,687 and \$86,104,398, respectively.

**Note 14. Change in Financing Sources Yet to Be Provided**

For the years ended September 30, 2000 and 1999, the Changes in Financing Sources Yet to be Provided is represented by changes in Liabilities Not Covered by Budgetary Resources to Fund Cost of Operations as follows:

	<i>(Amounts in Thousands)</i>	
	<u>2000</u>	<u>1999</u>
<b>Liabilities Not Covered by Budgetary Resources to Fund Cost of Operations, End of year</b> (see Note 7)	\$11,397	\$10,995
<b>Less Liabilities Not Covered by Budgetary Resources to Fund Cost of Operations, Beginning of year</b> (see Note 7)	<u>10,995</u>	<u>10,096</u>
<b>Change in Financing Sources Yet to be Provided</b>	<u>\$402</u>	<u>\$899</u>

## **Required Supplementary Information**

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Supplementary Information

**Budgetary Resources by Major Budgetary Accounts (Unaudited)  
For the Year Ended September 30, 2000  
(with comparative totals for 1999)**

	2000 (Amounts in Thousands)				1999
	RESEARCH AND RELATED	EDUCATION	MAJOR RESEARCH EQUIPMENT	OIG AND SALARY EXPENSE	
<b>Budgetary Resources</b>					<b>TOTAL</b>
Budget Authority	\$ 3,013,526	739,478	93,500	154,734	\$ 4,001,238
Unobligated Balances - Beginning of Period	62,398	56,013	67,963	1,233	187,607
Spending Authority from Offsetting Collections	69,657	11,762	2	4,076	85,498
Adjustments	22,041	11,883	14,511	1,450	49,886
<b>Total Budgetary Resources</b>	<b>\$ 3,167,622</b>	<b>819,136</b>	<b>175,977</b>	<b>161,493</b>	<b>\$ 4,324,228</b>
<b>Status of Budgetary Resources:</b>					
Obligations Incurred	\$ 3,087,920	724,908	105,002	159,322	\$ 4,077,152
Unobligated Balances - End of Period - Available	28,321	59,689	56,464	119	144,593
Unobligated Balances - End of Period - Not Available	51,381	34,539	14,511	2,052	102,483
<b>Total, Status of Budgetary Resources</b>	<b>\$ 3,167,622</b>	<b>819,136</b>	<b>175,977</b>	<b>161,493</b>	<b>\$ 4,324,228</b>
<b>Outlays</b>					
Obligations Incurred	\$ 3,087,920	724,908	105,002	159,322	\$ 4,077,152
Less: Spending Authority from offsetting Collections and Adjustments	107,535	33,073	14,513	6,951	162,072
<b>Obligated Balance, Net - Beginning of Period</b>	<b>3,222,298</b>	<b>940,561</b>	<b>28,931</b>	<b>25,723</b>	<b>4,217,513</b>
Less: Obligated Balance, Net - End of Period	3,483,268	1,048,392	86,476	27,066	4,645,202
<b>Total, Outlays</b>	<b>\$ 2,719,415</b>	<b>584,004</b>	<b>32,944</b>	<b>151,029</b>	<b>\$ 3,487,391</b>

In this table, NSF budgetary information for the fiscal years ended September 30, 2000 and 1999, as presented in the Statement of Budgetary Resources is disaggregated for each of NSF's major budgetary accounts.

**Intragovernmental Assets by Partner Agency (Unaudited)**

Intragovernmental assets on this schedule support the intragovernmental asset line items on NSF's Balance Sheets as of September 30, 2000 and 1999.

Intragovernmental balances included in Fund Balance with Treasury as of September 30, 2000 and 1999, consisted of the following:

*(Amounts in Thousands)*

Agency	<u>2000</u>	<u>1999</u>
<b>Department of the Treasury</b>	\$4,892,598	\$4,405,156
<b>Department of State</b>	<u>167</u>	<u>301</u>
<b>Total</b>	<u>\$4,892,765</u>	<u>\$4,405,457</u>

Intragovernmental Accounts Receivable balances as of September 30, 2000 and 1999, consisted of the following:

Agency	<u>2000</u>	<u>1999</u>
<b>Department of Defense</b>	\$182	\$396
<b>Department of Army</b>	8	-
<b>Department of Navy</b>	17	142
<b>Department of Air Force</b>	3,782	340
<b>National Aeronautics and Space Administration</b>	-	72
<b>Other</b>	<u>8</u>	<u>25</u>
<b>Total</b>	<u>\$3,997</u>	<u>\$975</u>



**National Science Foundation  
Supplementary Information**

**Intragovernmental Liabilities by Partner Agency (Unaudited)  
as of September 30, 2000 and 1999**

Agency	2000			1999		
	ADVANCES FROM OTHERS	ACCOUNTS PAYABLE	EMPLOYEE BENEFITS	ADVANCES FROM OTHERS	ACCOUNTS PAYABLE	EMPLOYEE BENEFITS
Department of Education	\$ 20,235	\$ -	\$ -	\$ 10,608	\$ -	\$ -
National Aeronautics and Space Administration	15,998	-	-	18,871	-	-
Department of Health and Human Services	17,736	-	-	17,052	-	-
Office of the Secretary – Defense Agencies	10,571	-	-	8,110	-	-
Department of Energy	8,012	1,000	-	6,268	(1)	-
Department of Commerce	7,321	-	-	5,845	(150)	-
Department of the Army	3,190	-	-	4,106	-	-
Department of Housing and Urban Development	1,525	-	-	760	-	-
Environmental Protection Agency	1,342	-	-	-	-	-
Department of Transportation	1,319	-	-	690	-	-
Department of Agriculture	1,219	-	-	1,970	(40)	-
National Foundation on the Arts and Humanities	1,214	-	-	955	-	-
Department of the Navy	1,211	-	-	1,734	-	-
Department of the Air Force	910	-	-	1,132	-	-
Department of the Interior	876	-	-	943	-	-
Department of State	597	-	-	555	(85)	-
Federal Emergency Management Agency	476	-	-	615	-	-
Department of Labor	470	-	335	878	-	260
General Services Administration	456	-	-	678	-	-
Department of Justice	451	-	-	391	-	-
National Archives and Records Administration	402	-	-	-	-	-
Central Intelligence Agency	274	-	-	213	-	-
Department of the Treasury	250	-	-	367	236	-
Office of Personnel Management	-	219	-	-	800	-
Other	328	-	-	1,097	-	-
Total	\$ 96,383	\$ 1,219	\$ 335	\$ 83,838	\$ 760	\$ 260

## Deferred Maintenance (Unaudited)

NSF performs periodic inspections of capitalized property, plant and equipment to determine if any maintenance is needed to keep an asset in an acceptable condition or restore an asset to a specific level of performance has been deferred. NSF considers deferred maintenance to be any maintenance that is not performed on schedule, unless it is determined from the condition of the asset that scheduled maintenance does not have to be performed. Also, deferred maintenance includes any other type of maintenance that, if not performed, would render the PP&E non-operational. Circumstances such as non-availability of parts or funding are considered reasons for deferring maintenance. Maintenance is not considered deferred if an asset is classified as non-critical and non-operational.

NSF considered whether any scheduled maintenance necessary to keep fixed assets of the agency in an acceptable condition was deferred at the end of Fiscal Year 2000 and 1999.

In FY 1999, NSF determined that scheduled maintenance on one item of heavy mobile equipment was not completed and was deferred or delayed for a future period. The equipment was considered to be in fair condition and NSF estimated that it required \$70,000 in maintenance.

During FY 2000, 90% of the maintenance deferred from FY 1999 on this same item of heavy mobile equipment was completed. The remaining 10%, totaling \$7,000, is considered deferred at the end of FY 2000. No additional scheduled maintenance was deferred at the end of FY 2000.



## **Required Supplementary Stewardship Information**

**59 Stewardship Reporting**

National Science Foundation  
**STEWARDSHIP INVESTMENTS**  
**RESEARCH AND HUMAN CAPITAL**  
For the Years Ended September 30, 2000, 1999 and 1998  
(Amounts in Thousands)  
(Unaudited)

	<u>2000</u>	<u>1999</u>	<u>1998</u>
<b>Research and Human Capital Activities</b>			
Basic Research	\$ 2,647,777	\$ 2,507,569	\$ 2,411,774
Applied Research	174,411	188,742	209,719
Education and Training	596,517	599,323	588,158
Non-Investment Activities	<u>162,021</u>	<u>143,980</u>	<u>147,617</u>
<b>Total Research and Human Capital Activities</b>	<u>\$ 3,580,726</u>	<u>\$ 3,439,614</u>	<u>\$ 3,357,268</u>
<b>Inputs, Outputs and/or Outcomes -</b>			
<b>Research and Human Capital Activities</b>			
Investments in:			
Universities	\$ 2,470,300	\$ 2,385,492	\$ 2,215,535
Industry	160,573	154,555	151,064
Federal Agencies	144,790	150,959	163,101
Small Business	119,345	110,884	105,247
Others	<u>685,718</u>	<u>637,724</u>	<u>722,321</u>
	<u>\$ 3,580,726</u>	<u>\$ 3,439,614</u>	<u>\$ 3,357,268</u>
Support to:			
Scientists	\$ 359,228	\$ 350,841	\$ 352,513
Postdoctoral Programs	117,504	120,386	120,862
Graduate Students	<u>315,583</u>	<u>323,324</u>	<u>322,298</u>
	<u>\$ 792,315</u>	<u>\$ 794,551</u>	<u>\$ 795,673</u>
Outputs & Outcomes:			
Number of:			
Awards	19,673	19,518	17,994
Years of Scientist Support	5,518	5,054	5,056
Scientists Supported	24,134	23,108	23,213
Postdoctorals Supported	4,781	4,391	4,459
Graduate Students Supported	21,663	20,156	19,517

NSF's role in achieving performance goals in science and engineering leads to investments in integrative research and human capital activities to enhance the potential for important discoveries or new knowledge with expected future benefits to our society. Because of the close connections between the investments in performing research and building a research base of skilled scientists and engineers through academic and training opportunities, expenses incurred by NSF are presented as overall stewardship investments for NSF for performance measurement. The outputs and outcomes of NSF investments in the research and academic community resulted in a number of grants awarded and scientists and students supported.



- ◀ Much of the research supported by NSF in the area of social and economic sciences deals with decision-making under uncertainty—both by individuals and businesses—and applications of game theory. NSF also supports studies in political science, law and social science, sociology, ethics and values, science and technology, archaeology, linguistics, social psychology, and human cognition and perception.

# Independent Auditors' Report and Management's Response

**NATIONAL SCIENCE FOUNDATION**  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230



February 26, 2001

To: Dr. Eamon M. Kelly  
Chairman, National Science Board

Dr. Rita Colwell  
Director, National Science Foundation

From: Christine C. Boesz, Dr. *Christine C. Boesz*  
Inspector General

Subject: Audit of the National Science Foundation's  
Fiscal Years 2000 and 1999 Financial Statements

This memorandum transmits KPMG LLP's report on its Fiscal Years 2000 and 1999 financial statement audit of the National Science Foundation (NSF).

**Results of Independent Audit**

The Chief Financial Officers (CFO) Act of 1990 (P.L. 101-576), as amended, requires NSF's Inspector General or an independent external auditor, as determined by the Inspector General, to audit the Foundation's financial statements. Under a contract monitored by the Office of Inspector General (OIG), KPMG, an independent public accounting firm, performed an audit of NSF's Fiscal Years 2000 and 1999 financial statements. The contract required that the audit be performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States, and Bulletin 01-02, "Audit Requirements for Federal Financial Statements," issued by the United States Office of Management and Budget.

KPMG issued an unqualified opinion on NSF's financial statements. In their Report on Internal Controls Over Financial Reporting, KPMG did not note any matters that they considered to be a material control weakness. In their Report on Compliance with Laws and Regulations, KPMG identified one instance of reportable noncompliance relating to a potential noncompliance with Federal appropriations law arising from NSF expending funds from its Research and Related Activities appropriation to supplement potential shortfalls in its Major Research Equipment (MRE) appropriation for a large international project. This potential noncompliance with law was identified in a report issued by the NSF OIG in December 2000. NSF management believes, however, that its allocation of costs between the two appropriations was within its discretion under the guiding principles of Federal appropriations law and disagrees with the OIG's assessment. NSF management intends to seek to have language included in future MRE appropriations to clarify that funds from other sources might be used to supplement those in such appropriations.



**Evaluation of KPMG's Audit Performance**

To fulfill our responsibilities under the CFO Act of 1990, as amended, and other related financial management legislation, the Office of Inspector General:

- Reviewed KPMG's approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Examined working papers related to assessing internal controls over NSF's financial reporting process;
- Reviewed KPMG's audit report to ensure compliance with Government Auditing Standards and Office of Management and Budget Bulletin No. 01-02;
- Coordinated issuance of the audit report; and
- Performed other procedures that we deemed necessary.

However, due to the timing for completing the NSF Fiscal Year 2000 Accountability Report, we have not yet completed our review of the working papers prepared by KPMG.

KPMG is responsible for the attached auditor's report dated January 10, 2001, and the conclusions expressed therein. Our review, as differentiated from an audit in accordance with auditing standards generally accepted in the United States of America, was not intended to enable us to express, and accordingly we do not express, an opinion on NSF's financial statements and report on NSF's internal control over financial reporting and compliance with laws and regulations. Nevertheless, we believe that KPMG's work provides a reasonable basis for its report.

The Office of Inspector General appreciates the courtesies and cooperation extended to KPMG LLP and to our audit staff during the audit. If you or your staff have any questions, please contact me or Deborah H. Cureton, Associate Inspector General for Audit.



2001 M Street, N.W.  
Washington, D.C. 20036

## INDEPENDENT AUDITORS' REPORT

Dr. Eamon M. Kelly  
Chairman, National Science Board

Dr. Rita Colwell  
Director, National Science Foundation

We have audited the accompanying balance sheets of the National Science Foundation (NSF) as of September 30, 2000 and 1999, and the related statements of net cost, changes in net position, budgetary resources, and financing (hereinafter collectively referred to as "financial statements") for the years then ended. The objective of our audits was to express an opinion on the fair presentation of these financial statements. In connection with our audits, we also considered NSF's internal control over financial reporting and tested NSF's compliance with certain provisions of applicable laws and regulations that could have a direct and material effect on its financial statements.

### SUMMARY

As stated in our opinion, we conclude that NSF's financial statements as of and for the years ended September 30, 2000 and 1999 are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America.

Reportable conditions are matters coming to our attention relating to significant deficiencies in the design or operation of internal control over financial reporting that, in our judgment, could adversely affect NSF's ability to record, process, summarize, and report financial data consistent with the assertions by management in the financial statements. Material weaknesses are reportable conditions in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements, in amounts that would be material in relation to the financial statements being audited, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Because of inherent limitations in any internal control, misstatements due to error or fraud may occur and not be detected. However, we noted no matters involving the internal control and its operation that we considered to be material weaknesses as defined above during the year ended September 30, 2000.

Regarding our consideration of internal control over financial reporting, we identified a reportable condition regarding the reporting of property, plant and equipment during the year ended September 30, 1999. NSF's United States Antarctic Program contractor did not implement internal control policies and procedures to ensure that year-end equipment records provided to NSF were complete. However, we do not believe the property, plant, and equipment



matter was a material weakness. This condition has been corrected during the year ended September 30, 2000.

Regarding our tests of compliance with certain provisions of laws and regulations, we noted one instance of reportable noncompliance with laws and regulations that is required to be reported under *Government Auditing Standards* and Office of Management and Budget (OMB) Bulletin No. 01-02, *Audit Requirements for Federal Financial Statements*, for the year ended September 30, 2000. This instance related to a potential noncompliance with Federal appropriations law arising from NSF expending funds from its Research and Related Activities appropriation to supplement potential shortfalls in its Major Research Equipment appropriation for a large international project. This potential noncompliance with law was identified in a report issued by the NSF Office of Inspector General in December 2000. We noted no instances of reportable noncompliance with laws and regulations related to the year ended September 30, 1999.

Our conclusions and the scope of our work are discussed in more detail below.

## **OPINION ON FINANCIAL STATEMENTS**

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the National Science Foundation as of September 30, 2000 and 1999, and its net costs, changes in net position, budgetary resources, and reconciliation of net costs to budgetary obligations, for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The information in the *Management's Discussion and Analysis, Required Supplementary Information*, and *Required Supplementary Stewardship Information* sections is not a required part of the financial statements but is supplementary information required by the Federal Accounting Standards Advisory Board and Office of Management and Budget (OMB) Bulletin No. 97-01, *Form and Content of Agency Financial Statements*, as amended. We did not audit the information in the *Management's Discussion and Analysis, Required Supplementary Information*, and *Required Supplementary Stewardship Information* sections, and, accordingly, we express no opinion on it. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of this information. We determined that NSF did not complete the intragovernmental balance reconciliations with its governmental trading partners, as specified by the January 2000 technical amendment to OMB Bulletin No. 97-01, because, although NSF issued confirmations to its major partners, such partners did not respond with adequate information to assist in reconciling balances.

## **INTERNAL CONTROL OVER FINANCIAL REPORTING**

Our consideration of internal control over financial reporting would not necessarily disclose all matters in the internal control over financial reporting that might be reportable conditions. Under standards issued by the American Institute of Certified Public Accountants and OMB Bulletin 01-02, reportable conditions are matters coming to our attention relating to significant deficiencies in the design or operation of the internal control over financial reporting that, in our

judgment, could adversely affect NSF's ability to record, process, summarize, and report financial data consistent with the assertions by management in the financial statements. Material weaknesses are reportable conditions in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements, in amounts that would be material in relation to the financial statements being audited, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Because of inherent limitations in any internal control, misstatements due to error or fraud may occur and not be detected. However, we noted no matters involving the internal control and its operation that we considered to be material weaknesses for the years ended September 30, 2000 and 1999 as defined above.

Exhibit 1 presents the status of the 1999 reportable condition.

We noted other matters involving internal control and its operation that we have reported to the management of NSF in a separate letter dated January 10, 2001.

#### **COMPLIANCE WITH LAWS AND REGULATIONS**

The results of our tests of compliance with certain provisions of laws and regulations, which include tests of compliance with Federal Financial Management Improvement Act (FFMIA) Section 803(a) requirements, performed as part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, disclosed one instance of potential noncompliance with laws and regulations that is required to be reported herein under *Government Auditing Standards* and OMB Bulletin No. 01-02. This instance of reportable noncompliance relates to a potential noncompliance with Federal appropriations law arising from NSF expending funds from its Research and Related Activities appropriation to supplement potential shortfalls in its Major Research Equipment appropriation for a large international project. This potential noncompliance with law was identified in a report issued by the NSF Office of Inspector General (OIG) in December 2000.

*NSF Management Response: NSF management believes that its allocation of costs between the two appropriations was within its discretion under the guiding principles of Federal appropriations law and disagrees with the OIG's assessment. NSF management intends to seek to have language included in future Major Research Equipment appropriations to clarify that funds from other sources might be used to supplement those in such appropriations.*

We noted no instances of reportable noncompliance with laws and regulations related to the year ended September 30, 1999.

We noted other matters involving compliance with laws and regulations that we do not consider to be material non-compliance, which have been reported to the management of NSF in a separate letter dated January 10, 2001.

## RESPONSIBILITIES

**Management's Responsibility.** The Chief Financial Officer's (CFO) Act of 1990, as amended, requires federal agencies to report annually to Congress on their financial status and any other information needed to fairly present the agencies' financial position and results of operations. To meet the CFO Act reporting requirements, NSF prepares annual financial statements. Management is responsible for:

- preparing the financial statements in conformity with accounting principles generally accepted in the United States of America, and for preparing the other information contained in the FY 2000 Accountability Report
- establishing and maintaining internal controls over financial reporting
- complying with applicable laws and regulations, including FFMIA

In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control policies.

**Auditors' Responsibility.** Our responsibility is to express an opinion on the financial statements of NSF as of and for the years ended September 30, 2000 and 1999, based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Bulletin No. 01-02. Those standards and OMB Bulletin No. 01-02 require that we plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures relating to the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In planning and performing our audits, we considered NSF's internal control over financial reporting by obtaining an understanding of the design of NSF's internal control, determining whether internal controls had been placed in operation, assessing control risk, and performing tests of controls in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements. We limited our internal control testing to those controls necessary to achieve the objectives of OMB Bulletin No. 01-02 and *Government Auditing Standards*. We did not test all internal controls as defined by the Federal Managers' Financial Integrity Act of 1982. The objective of our audits was not to provide assurance on NSF's internal control. Consequently, we do not provide an opinion on internal control over financial reporting.

In addition, as required by OMB Bulletin No. 01-02, we considered NSF's internal control over *Required Supplementary Stewardship Information* by obtaining an understanding of NSF's

internal control, determining whether these internal controls had been placed in operation, assessing control risk, and performing tests of controls. Our procedures were not designed to provide assurance on internal control over *Required Supplementary Stewardship Information*, and, accordingly, we do not provide an opinion on such controls.

As further required by OMB Bulletin No. 01-02, with respect to internal control related to performance measures determined by management to be key and reported in *Management's Discussion and Analysis* section of the FY 2000 Accountability Report, we obtained an understanding of the design of significant internal controls relating to the existence and completeness assertions. Our procedures were not designed to provide assurance on internal control over reported performance measures, and, accordingly, we do not provide an opinion on such controls.

As part of obtaining reasonable assurance whether the NSF's financial statements are free of material misstatement, we performed tests of NSF's compliance with certain provisions of laws and regulations, noncompliance with which could have a direct and material effect on the determination of the financial statement amounts, and certain provisions of other laws and regulations specified on OMB Bulletin No. 01-02, including certain requirements referred to in FFMIA. We limited our tests of compliance to these provisions, and did not test compliance with all laws and regulations applicable to NSF. However, providing an opinion on compliance with laws and regulations was not an objective of our audit, and, accordingly, we do not express such an opinion.

Under OMB Bulletin No. 01-02 and FFMIA, we are required to perform tests of compliance with FFMIA Section 803(a) requirements, which indicate whether NSF's financial management systems substantially comply with (1) Federal financial management systems requirements, (2) applicable Federal accounting standards, and (3) the United States Government Standard General Ledger at the transaction level. The results of our tests disclosed no instances in which NSF's financial management systems did not substantially comply with these requirements.

#### **DISTRIBUTION**

This report is intended solely for the information and use of NSF's management, the NSF Office of Inspector General, OMB, and Congress, and is not intended to be and should not be used by anyone other than these specified parties.

*KPMG LLP*

January 10, 2001

**Exhibit 1****Status of 1999 Reportable Condition**

**1999 Condition:** NSF's United States Antarctic Program (USAP) contractor did not implement internal control policies and procedures to ensure that year-end equipment records provided to NSF were complete. NSF, through its contractor, maintains research facilities in New Zealand and Antarctica where over 95 percent of NSF's assets reside. We performed extensive interim testing prior to year-end at the contractor's site and found equipment additions properly recorded in the contractor's records. We found, however, that these additions were not recorded at year-end in either the contractor records or NSF's general ledger. We believe that as a result of these conditions, NSF cannot routinely compile complete and accurate property information related to contractor-held equipment additions for financial reporting. As a result of our testwork and recommendations, however, NSF adjusted contractor-held equipment additions to accurately report activity in the financial statements.

**1999 Recommendations:** We recommend that NSF implement procedures to ensure complete and accurate reporting of contractor-held equipment.

**2000 Management's Response:** Procedures were implemented by the USAP Contractor during fiscal year 2000 to reconcile equipment additions recorded and reported during the year to the total additions for the year that had been recorded and reported at year-end to NSF. Additionally, NSF management instituted a supervisory level of review and concurrence with accounting information prepared by contractor staff to identify and correct any errors and improper reporting before information is submitted to NSF.

**2000 KPMG's Assessment:** Corrected





- ◀ As part of an effort to conserve tropical invertebrates, NSF-supported researcher Rob Stevenson is studying the migration of butterflies in Costa Rica. More than 260 species move from the Atlantic to the Pacific and back each year. Such species need special conservation efforts because they depend on at least two seasonal habitats. Rob is monitoring life history and behavior of a select group of migratory species, comparing them with non-migratory species, in order to understand their sensitivities to habitat fragmentation.

*Rob Stevenson, University of Mass., Boston*

# Performance Results and Related Issues

# FY 2000 Performance Results and Related Issues

The purpose of this chapter is to provide a more detailed explanation of the performance results presented in the Management's Discussion and Analysis and to discuss performance-related topics. For a complete and comprehensive discussion of NSF's performance goals, final results and related issues, see NSF's *FY 2000 GPRA Performance Report*, available on NSF's Web site ([www.nsf.gov/od/gpra/](http://www.nsf.gov/od/gpra/)).

This is the second year NSF is reporting performance results. NSF began implementing GPRA in 1997, by developing an agency GPRA Strategic Plan. In compliance with the Results Act, NSF updated this Strategic Plan last fall. NSF's GPRA Strategic Plan provides the guiding framework for NSF's FY 2000 Annual Performance Plan, which was developed in conjunction with the development of NSF's FY 2000 budget. The concurrent development of the performance plan and the budget creates a direct link between programmatic activities and the achievement of NSF's strategic goals. A more detailed description of how performance goals and program activities are linked to the budget structure follows.

GPRA implementation has been a particular challenge for agencies like NSF whose mission involves research activities. This is primarily due to: (1) the difficulty of linking research outcomes to annual investments and the agency's annual budget and (2) the fact that assessing the results of research is inherently retrospective and requires qualitative judgments of expertise. NSF has developed an alternative format that has been approved by OMB, using external expert review panels to assess research results and reporting research outcome goals utilizing a qualitative scale. The use of external expert panels to review research results and outcomes is a common, long-standing practice used by the academic research community.

## Performance Goals

NSF's FY 2000 Annual Performance Plan includes three sets of goals:

- ▶ **Outcome Goals** focus on the results of NSF's grants for research and education in science and engineering and relate directly to the mission of the agency. These Outcome Goals are also NSF's long term strategic goals from NSF's Strategic Plan, FY 1997-2003. In FY 2000, a new goal addressing data quality measures for reporting Science Resource Studies (SRS) products was added.
- ▶ **Management Goals** address the efficiency and effectiveness of administrative activities in support of the NSF mission. In FY 2000, two new goals addressing electronic proposal processing and staff diversity were added.
- ▶ **Investment Process Goals** focus on the means and strategies NSF uses to achieve its outcome goals and sets performance targets for the investment processes by which NSF shapes its portfolio of awards. Several new goals were added in FY 2000 to address customer service, the integration of research and education, and diversity.

These three sets of goals are mutually supportive. The longer term desired results of NSF awards are reflected in the Outcome Goals. Achieving the desired Outcome Goals depends in part on the quality of the investment process, which is related to the efficiency and effectiveness of the agency's administration and management. The Investment Process Goals and Management Goals are necessary to ensure that the longer term Outcome Goals will be achieved.

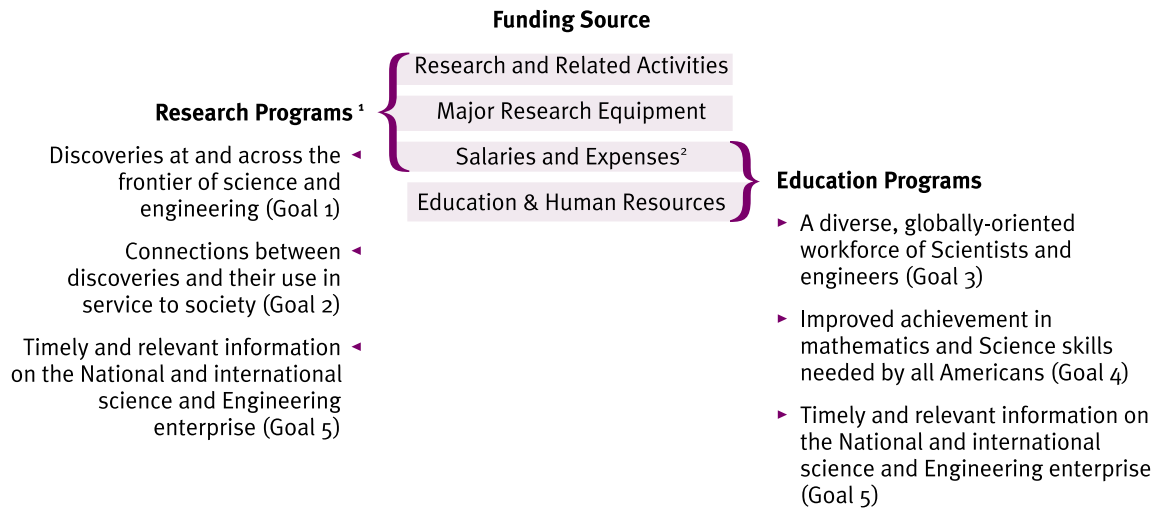
NSF's key strategy for success is through use of a rigorous merit review process in making awards for activities that will influence research and education in math, science and engineering, both directly and indirectly.

### How Performance Goals are Linked to Areas of Emphasis and to the Budget Structure

NSF's five Outcome Goals address the results of NSF's grants for research and education in science and engineering and relate directly to the mission of the agency. Outcome Goal 1 (*Discoveries at and across the frontier of science and engineering*) and Outcome Goal 2 (*Connections between discoveries and their use in service to society*) address NSF's research grants. Outcome Goal 3 (*A diverse, globally oriented workforce of scientists and engineers*) and Outcome Goal 4 (*Improved achievement in mathematics and science skills needed by all Americans*) address NSF's education grants. Outcome Goal 5 (*Timely and relevant information on the national and international science and engineering enterprise*) addresses NSF's legislative mandate to collect, interpret and analyze data on scientific and engineering resources, and to provide a source of information for federal policy formulation. This goal applies to both research and education activities.

The following chart shows how NSF's Outcome Goals are linked to the NSF budget structure. NSF receives five Congressional appropriations: Research and Related Activities (R&RA); Major Research Equipment (MRE); Education and Human Resources (EHR); and Salaries and Expenses (S&E). The fifth appropriation funds the Office of Inspector General. Outcome Goals 1,2 and 5 are funded through the R&RA and MRE appropriations and Outcome Goals 3 and 4 are funded through the EHR appropriation. Because the S&E appropriation funds the internal administration and management of the agency, S&E funding applies to all the Outcome Goals, and as indicated in the Statement of Net Cost, is proportionately prorated between research and education programs based on each program's direct cost.

## The Linkage Between NSF’s Outcome Goals and the Budget Structure



<sup>1</sup> Given the integrative nature of research and education, research programs are expected to include an education component.

<sup>2</sup> The indirect support activities funded by the Salaries and Expenses and Inspector General appropriations are proportionately prorated between research and education programs based on each program’s direct cost.

### Data Verification and Validation

In FY 2000, NSF engaged PricewaterhouseCoopers LLP (PwC) to document and assess the process NSF uses to collect, maintain and report data for selected performance goals. PwC was also tasked with re-calculating the measures and assessing the reliability of the supporting processes. PwC mapped NSF procedures against the U.S. General Accounting Office (GAO) criteria for supporting processes to be considered valid and verifiable. For the Outcome Goals, PwC verified and validated the results.

In their final reports of their reviews of the Investment Process Goals and the Management Goals, PwC concluded that NSF was reporting its GPRA measures with “sufficient accuracy such that any errors, should they exist, would not be significant enough to change the reader’s interpretation as to the Foundation’s success in meeting the supporting performance goal. . .” Furthermore, PwC concluded that NSF “relies on sound business processes, system and application controls, and manual checks of system queries to confirm the accuracy of reported data. We believe that these processes are valid and verifiable.”

## Summary of Results

In FY 2000, NSF was considerably more rigorous in evaluating goal achievement. Options for grading were limited to either successful or not successful. Justification was required for successful grades that used qualitative measures. Finally, for the Outcome Goals, an external firm, PricewaterhouseCoopers LLP, was engaged to verify the achievement data tables for the Outcome Goals. While NSF was successful in achieving 64% of its goals in FY 2000 as compared with achieving 78% for FY 1999, the results of the second year are very similar to the first. Positive trends were evident in some of the goals, indicating movement in a desirable direction. The areas identified as needing improvement continue to be: (1) the use of both merit review criteria by reviewers and applicants; and (2) customer service goals such as decreasing time to decision. Both these areas will be focal points for FY 2001.

Overall, NSF achieved 18 of 28 performance goals—six out of eight Outcome Goals, five out of six Management Goals, and seven out of 14 Investment Process Goals. As in FY 1999, one Investment Process Goal dealing with facilities management was not applicable in FY 2000.

Performance Goal	Number of Goals Achieved
Outcome Goals	6 out of 8 (75%)
Management Goals	5 out of 6 (83%)
Investment Process Goals	7 out of 14 (50%); one goal did not apply
Total	18 out of 28 (64%)

## Part I. Outcome Goals and Results for FY 2000

NSF's long-term Outcome Goals address how the investments made by programs have led to results important to the broad mission of the agency. These Outcome Goals do not lend themselves to quantitative reporting, therefore NSF has developed an alternative format -- a qualitative scale that allows NSF to report whether or not the agency has been successful in achieving its Outcome Goals. Also, because many research results appear long after an investment is made, in some cases ten years or more, this assessment report of NSF's program performance is retrospective. That is, the outcome results reported in FY 2000 are from investments made prior to FY 2000. The results of the investments made in FY 2000 will not begin to be reported until beyond FY 2000.

In FY 2000, NSF's Outcome Goals 1, 2, 3 and 4a are expressed in a non-quantitative, qualitative form, each critical to ensure the progress of science. The results reported for the year are collected, tabulated and summarized by aggregating many individual reports prepared by committees of external experts assessing individual programs or clusters of programs throughout the fiscal year. The assessment is retrospective, covering a subset of one-third of NSF's programs that represent activities spanning the entire agency over a period of three years or more.

**How Research Results Are Assessed:** Committees of external experts are carefully selected to provide NSF with an objective, independent assessment of programs for process and results. These committees, known as Committees of Visitors (COVs) and Advisory Committees (ACs), assess approximately one-third of NSF's programs each year. In FY 2000, they were asked to evaluate the progress made by the programs in achieving each of NSF's Outcome Goals as well as the decision process leading to awards.

Programs are evaluated on a three-year cycle, thus for FY 2000, the years 1997, 1998 and 1999 were most likely to be the years reviewed by the COVs. This process means that each year a different subset of NSF's programs is evaluated by a different group of experts. Hence, in FY 1999, evaluators assessed one-third of NSF's programs and in FY 2000, evaluators assessed a different one-third subset of NSF's programs.

In addition to the programmatic assessments conducted by the COVs and ACs each year, there are program evaluations carried out by independent contractors to address specific issues. For example, in FY 2000, program evaluations undertaken include an assessment of the current status of chemical sciences including an evaluation of current trends and key opportunities in the field; a review of the merit of seafloor observatories; and an assessment of the challenges and opportunities in the nanotechnology field. These program evaluations provide important information that enables NSF program staff to make better decisions about how to best invest NSF resources. These programmatic assessments do not directly address NSF's GPRA goals.

**Summary of Results:** In FY 2000, NSF used a stricter definition of success in analyzing results for the Outcome Goals. Six out of eight Outcome Goals were achieved. External evaluators consistently judged NSF's programs to result in high quality outputs and outcomes. Overall, results are similar to those obtained in FY 1999. This is an important result, since a different subset of NSF's portfolio is evaluated each year by a different group of external experts. Thus, this second year of reporting provides NSF with a good indication of areas needing attention. In this second year, trends are beginning to appear which has helped NSF to identify areas for future improvement.

Reports by external evaluators indicate that NSF has successfully achieved the first two outcome goals (Goal 1 and Goal 2), and has achieved with limited success the second two outcome goals (Goal 3 and Goal 4a). Evaluators identified the same areas as having limited success and in need of improvement as in FY 1999. In general, many programs are showing improvement over FY 1999 performance in the area of increasing diversity through increased participation of underrepresented groups, but reports indicate that the numbers are still lower than expected. The evaluators comment that increasing participation of underrepresented groups is an area needing more attention for NSF. Other areas needing further improvement include balance of portfolio by funding more high-risk proposals; and use of both of NSF's merit review criteria by applicants and reviewers. Several reports note that there are clear indications that use of the merit review criteria is evident in making

decisions to fund or not fund applications. Common issues identified in some reports that may result in negative impact on program performance in general, include workload and delays in processing proposals (see Investment Process Goal 7).

### OUTCOME GOAL 1: Discoveries at and across the frontier of science and engineering.

*Performance Goal:* NSF is judged successful in meeting this goal when NSF awards lead to important discoveries; new knowledge and techniques, both expected and unexpected, within and across traditional disciplinary boundaries; and high-potential links across these boundaries, as judged by independent external experts.

*Results:* **This goal was achieved.** Reports by external experts indicate NSF is successful in achieving this goal in the aggregate.

NSF supports cutting edge research that yields new discoveries over time. These discoveries are essential for maintaining the nation's capacity to excel in science and engineering and lead to new and innovative technologies that benefit society.

NSF's key strategy for success is to support the most promising ideas in research and education, as identified through merit review of competitive proposals. Innovation and creativity, cooperative research through partnerships, and education and training are emphasized and encouraged.

### OUTCOME GOAL 2: Connections between discoveries and their use in service to society.

*Performance Goal:* NSF is judged successful when the results of NSF awards are rapidly and readily available and feed, as appropriate, into education, policy development, or use by other federal agencies or the private sector, as judged by independent external experts.

*Results:* **This goal was achieved.** The results this year are similar to those reported for FY 1999. Overall, the majority of reports from external experts indicate that most NSF programs evaluated were successful in meeting this goal in FY 2000. However, some programs could show improvement, as was noted in FY 1999.

America's national security, economic competitiveness, health, environment, quality of life, and understanding of the world around us depend on taking advantage of discoveries. Discoveries resulting from basic research and education lead to new knowledge, which often cannot be identified at the start of a project. Thus, the connections are not immediately apparent, and may only be realized decades later. The new knowledge frequently leads to applications, which can have a significant impact on society. NSF views the public accessibility of NSF generated results as well as partnerships among government, academia, and industry as critical components for the progress of science and technological innovation.

#### Cracks Along Continental Shelf

The discovery of cracks along the edge of the continental shelf off the coast of Southern Virginia that could result in underwater landslides and create tsunamis prompted NSF to fund a detailed geological and geophysical investigation of these features. Researchers determined that the cracks were formed by continuous and massive gas blowouts. Similar gas blowouts have damaged or destroyed oil rigs in the Gulf of Mexico and the North Sea. These findings have serious implications for potential geohazards on the east coast of the United States.

#### Map-making in 3-D Settings With Mobile Robots

Professor Sebastian Thrun (Carnegie Mellon University), under NSF support, has developed a new statistical mapping algorithm that enables teams of mobile robots equipped with 2D-laser range finders to build joint maps together in real-time. Mapping unfamiliar terrain or buildings with robots has high potential for working in hazardous or distant places. Thrun's work received the Best Conference Paper Award at the 2000 IEEE International Conference on Robotics and Automation, San Francisco, April 2000.

### Urban Ecology

A Baltimore Ecosystem Study supported by NSF is focusing on how people at different scales—households, neighborhoods, and municipalities—affect water quality in the regional watersheds. Initial research has shown a significant relationship between concentration of political and economic power in the city and the different levels of investment in green infrastructure among neighborhoods. Additional research is focusing on how households affect water quality through irrigation, use of fertilizers and pesticides, as well as on how such land management practices vary with household demographic and socioeconomic characteristics.

### Solving a Murder

Students participating in the NSF-supported Research Experiences for Undergraduates Site in Rapid Prototyping at the Milwaukee School of Engineering helped solve a local murder case by developing a technique for creating a facial image from a skull, which allowed identification of the victim. The FBI is now interested in working with the School to develop advanced forensic techniques based on the method.

NSF's key strategy for success in achieving this goal is through use of the merit review process to make awards for research and education activities that focus on discovery and that create or have the potential for connections with use in service to society. Potential for use in service to society is an element in the merit review criteria established by NSF and used in the decision process leading to funding.

## OUTCOME GOAL 3: A diverse, globally oriented workforce of scientists and engineers.

**Performance Goal:** NSF is judged successful in meeting this goal when in the aggregate: (1) participants in NSF activities experience world-class professional practices in research and education, using modern technologies and incorporating international points of references; (2) academia, government, business, and industry recognize their quality; and (3) the science and engineering workforce shows increased participation of underrepresented groups, as judged by independent external experts.

**Results:** NSF's performance toward this goal was judged successful in the aggregate by external experts in committee reports with respect to achieving a globally oriented workforce, but not fully successful with respect to achieving diversity or increased participation of underrepresented groups.

For FY 2001, this goal has been incorporated into a broader goal that focuses on achieving NSF's desired outcome of a diverse, internationally competitive and globally engaged workforce of scientists, engineers and well-prepared citizens.

Although NSF provides only a relatively small portion of the overall U.S. investment in the development of the science and engineering workforce through its programs, this investment is particularly important to the development of the workforce of the future. The quality of the future workforce is dependent on the investment being made now to educate and train students. A diverse science and engineering workforce that is representative of the American public and able to respond effectively to a global economy is vitally important to America. As a nation, we need new technical knowledge and people trained to use that knowledge. The competence and capabilities of the nation's science and engineering workforce keep America at the forefront of innovation and technological progress.

One of NSF's key strategies for success in achieving this goal is by providing opportunities for participation in integrative research and education experiences. To influence the development of integrated approaches, NSF has developed a number of Foundation-wide programs intended to facilitate the integration of research and education. Each of these programs relies on NSF's close interaction with the academic science and engineering communities to draw research and education together. NSF works to achieve this goal by making awards for research and education activities that are intended to influence the development of the science and engineering workforce, and increase the participation of underrepresented groups.



## OUTCOME GOAL 4: Improved achievement in mathematics and science skills needed by all Americans.

*Performance Goal 4a:* NSF is judged to be successful in meeting this goal when, in the aggregate, the results of NSF awards lead to: (1) the development, adoption, adaptation, and implementation of effective models, products, and practices that address the needs of all students; (2) well-trained teachers who implement standards-based approaches in their classrooms; and (3) improved student performance in participating schools and districts.

*Results:* This goal was judged successful in a limited context in the aggregate by external experts. Activities important to achieving success toward this goal included systemic approaches, attention to teacher preparation and development, partnership with other agencies, digital libraries, graduate teaching fellows as content resources in K-12 schools, and developing a strong research base for use by practitioners. In the aggregate, when this goal was a clear objective of the programs being evaluated and when there was sufficient information available to carry out the evaluation, most reports indicated NSF programs were successful in achieving this goal. External evaluators were uncertain how to assess performance where programs did not have funds directed to these objectives, resulting in an assessment of less than successful or no assessment. In aggregating results and using reports with substantive comments and ratings which were clearly justified for each area, NSF's performance toward this goal was judged as successful or successful in a limited context by a majority of external experts, and therefore, its result is successful in a limited context and reported as not fully achieved in FY 2000.

The results obtained in FY 1999 and FY 2000 has led NSF to refine this goal and identify ways to improve data and information collection to assess progress in achieving this goal. However, it is likely to take a few years to acquire the database necessary for full reporting of this goal.

*Performance Goal 4b:* NSF is successful in meeting this goal when over 80% of schools participating in a systemic initiative program will: (1) implement a standards-based curriculum in science and mathematics; (2) further professional development of the instructional workforce; (3) improve student achievement on a selected battery of tests, after 3 years of NSF support.

*Results:* **This goal was achieved.**

*Performance Goal 4c:* NSF is successful in meeting this goal when through systemic initiatives and related teacher enhancement programs, NSF will provide intensive professional development experiences annually for at least 65,000 pre-college teachers.

*Results:* **This goal was achieved.**

This goal addresses a need widely recognized by all Americans. Proficiency in essential skills and understanding of basic concepts in mathematics and science are critical to the earning power of individuals, to the nation's economic competitiveness, and to the quality of life in the 21st century. NSF is the only agency that directly aims at developing such proficiencies at all levels of education.

### Systemic Education Reform

NSF investments in education system reform have led to increased achievement for all socioeconomic classes of students and substantial narrowing of the gaps between minority and majority students. Over the first six years of the Miami-Dade Systemic Initiative, the median percentile scores on the Stanford-8 test for grade 4 students increased from 26 to 40 for African Americans, from 46 to 59 for Hispanics, and from 74 to 77 for Whites, showing substantial progress toward closing the achievement gap.

NSF has established linkages with other agencies, and supports the development of prototypes for cooperative activities involving state and local educational agencies, and the private sector.

NSF supports a continuum of activities that enables improvement of mathematics and science skills for all Americans. These activities include educational reform at the K-12 levels and beyond; teacher education and professional development; research activities that use science and technology to inform better educational practice; and activities that bring science into the classroom and place students at the sites of exploration and discovery. Common themes that are emphasized across the Foundation include the implementation of high quality, standards-based instruction for all students; integration of research and education; and coordination of resources, policies, and practices to maximize the impact of educational investments. These activities benefit students, teachers, and the general public nationwide.

Investments in education are made to facilitate the development of essential skills in mathematics and science for all Americans through the promotion of broad-based or system-wide reforms in science, mathematics, engineering, and technology education that are based on national standards.

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### OUTCOME GOAL 5: Timely and relevant information on the national and international science and engineering enterprise.

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*Performance Goal 5a:* Maintain FY 1999 gains in timeliness for an average of 486 days the time interval between reference period (the time to which the data refer) and reporting of data.

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*Results:* **This goal was achieved.**

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*Performance Goal 5b:* Establish a standard set of data quality measures for reporting of Science Resource Studies (SRS) products. Prepare reports on these measures for all SRS surveys and publish them in electronic formats to inform users of SRS data quality.

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*Results:* **This goal was achieved.** A standard format for reporting data quality measures was developed. For each ongoing SRS survey, the information on data quality measures, critical for the user to know for proper use of the survey data, was organized into the standard reporting format. These data quality reports were placed on the SRS Web site and linked to the other information available for each SRS survey.

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This goal addresses NSF's legislative mandate to collect, interpret, and analyze data on scientific and engineering resources, and to provide a source of information for federal policy formulation. In a recent survey, a sample of the science and engineering policy community indicated that improving timeliness of data was high priority for them. Measures of data quality help users determine the reliability of the information and the extent of likely variance introduced by sampling processes.

**Performance indicator:** Average time interval between the reference period and reporting data from SRS surveys\*

FY1995-96 Baseline: 540 days  
**FY1999-2000 Goal: 486 DAYS**  
**FY1999-2000 Actual: 461 DAYS**

\* Performance is measured as a two-year moving average of the number of days between the end of the data reference period and the public availability of data (usually electronic dissemination) for surveys SRS supports.

## Part II. Management Goals and Results in FY 2000

NSF's six management goals for FY 2000 address three issues of high priority at the Foundation—incorporating advanced technology into NSF's business operations; staff diversity; and Y2K compliance. In FY 2000, NSF achieved five out of six Management Goals.

### Results of FY 2000 Management Goals

Number of Goals Achieved	5
Number of Goals Not Achieved	1

### Management Goal 1 – FastLane Proposals

In FY 2000, NSF will receive and process at least 60% of full proposal submissions electronically through FastLane.

**Results: This goal was achieved.** FastLane is a collection of system modules that allows all transactions and communications between NSF and its grantees to be facilitated via the Internet. Under development since 1994, FastLane plays a major role in NSF's goal of achieving a paperless environment by the end of FY 2001.

In FY 2000, 81% of full proposal submissions were received and processed through FastLane. The success of this goal can be attributed to an aggressive outreach strategy combined with the efforts of an external Helpdesk to provide customer assistance.

For FY 2001, the goal is full implementation, which translates to a target goal of 95% in order to accommodate the fact that some universities do not have the technical capability to utilize FastLane, and some will experience significant difficulties in transmission.

### Management Goal 2 – Electronic Proposal Processing

By the end of FY 2000, NSF will have the technological capability of taking competitive proposals submitted electronically through the entire proposal and award/declination process without generating paper within NSF.

**Results: This goal was not achieved.** Historically, NSF has required paper submission once grant proposals were submitted electronically. Efforts to modernize this process have been underway for several years, and the goal is to move to electronic processing for the entire internal proposal and award process. At the start of the year, only four functions within the Peer Review Process were still paper-based, namely: Communications between NSF and the peer reviewer; Electronic panel review system; Letters to Principal Investigators (PIs) with declined proposals, and Release of review results to PIs. By the end of the year, the technological barriers to a completely paperless process had been removed within NSF, except for one remaining issue, the electronic equivalent of a signature for funding approval. Two electronic signature pilot projects were initiated during the year, and the results are being evaluated. Technological, financial, and legal issues still need to be resolved before electronic signatures can be adopted. NSF will continue to address these issues during the upcoming year. In addition, NSF will utilize the technological capabilities established this year and initiate ten pilot projects that demonstrate the paperless processing capability.

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### Management Goal 3 – Staff Diversity

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In FY 2000, NSF will show an increase over 1997 in the total number of hires to Science and Engineering positions from underrepresented groups.

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**Results: This goal was achieved.** In order to ensure that the United States maintains its world leadership role in science and technology the nation must maintain a premiere cadre of scientists, mathematicians, and engineers from all segments of society. NSF is committed to diversifying its staff of scientists and engineers (S&E) both in permanent positions and in the important rotating scientist positions. Of the 113 S&E employees hired in FY 2000, 39 were female and 19 were minority. This compares to 16 female and 15 minority hires in 1997.

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In FY 2001, NSF will continue to actively pursue this goal. In addition to increasing emphasis from the Director's office, NSF will increase its recruitment presence at major program workshops and seminars, target recruitment material towards underrepresented groups, and create a registry for minorities interested in serving on NSF advisory committees and panels. These committees and panels serve as a major pipeline for recruiting rotators and visiting scientists for the Foundation.

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### Management Goal 4 – FastLane Training

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By the end of FY 2000, all staff will receive an orientation to FastLane, and at least 80% of program and program support staff will receive practice in using its key modules.

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**Results: This goal was achieved.** In order for NSF to successfully implement the FastLane system it is essential that staff be oriented and properly trained. By the end of FY 2000, 100% of NSF staff had received an orientation to FastLane and 90% of program and program support staff had received practice in using its key modules.

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With staff turnover, FastLane orientation will be an on-going process. Moreover, as existing modules are enhanced or new modules added, the curricula will be modified to ensure that staff stays current in the use of FastLane and other electronic systems. Since the existing staff has been fully trained and procedures have been put in place to ensure that new staff receives orientation and training, FastLane training will no longer be reported as a GPRA goal.

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### Management Goal 5 – Y2K Compliance

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NSF will completed all activities needed to address the Year 2000 problem for its information systems according to plan, on schedule and within budget.

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*Results:* **This goal was achieved.** All activities needed to address the Year 2000 problem were completed according to plan, on schedule and within budget.

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### Management Goal 6 – Project Reporting

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In FY 2000, at least 85% of all eligible project reports will be submitted through the new Project Reporting System.

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*Results:* **This goal was achieved.** The Project Reporting System is part of NSF's effort to use advanced technology to create a more efficient, paperless work environment, in which information between the Foundation and its research and education customer community is done electronically via the Internet. In its first two years of use, the system has provided a wealth of information that was previously not available electronically, leading to significant changes in how NSF can respond to internal as well as external requests for information on the technical aspects of NSF awards.

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During FY 2000, NSF received 92% of final project reports through the Project Reporting System. Recognizing that minor exceptions are allowed for older awards, this represents nearly full implementation. Since the Project Report System has been successfully implemented and is being fully utilized, project reporting will no longer be reported as a GPRA goal in the future, although NSF will continue to emphasize the importance of using the Project Report System with our external community.

### Part III. Investment Process Goals

NSF's Investment Process Goals address various aspects of NSF's awards process, such as the use of merit review and the need to keep the awards system open to new people and new ideas. They also help to establish customer service standards for the agency, such as the time it takes to process a proposal. In addition, the facilities oversight performance goals for all federal science, space and technology agencies are included in NSF's set of Investment Process Goals.

In FY 2000, seven out of fourteen investment process goals were achieved. Because there were no construction projects completed in FY 2000, one of the facilities management goals did not apply.

#### Results of FY 2000 Investment Process Goals

Number of Goals Achieved	7
Number of Goals Not Achieved	7

Percent of project funding that has undergone merit review

FY1997	89%
FY1998	90%
FY1999	95%
<b>FY2000 Goal:</b>	<b>90%</b>
<b>FY2000 Result:</b>	<b>95%</b>

#### Investment Process Goal 1 - Use of Merit Review

At least 90% of NSF funds will be allocated to projects reviewed by appropriate peers external to NSF and selected through a merit-based competitive process.

*Performance Indicator:* Percent of NSF funds allocated to projects reviewed by appropriate peers external to NSF and selected through a merit-based competitive process.

*Results:* **This goal was achieved.** Based on NSF's original goal, which included merit reviewed projects as a percentage of all NSF funding, the Foundation exceeded its goal of 90% for FY 2000. As in FY 1999, NSF allocated 95% of its funds to merit reviewed projects.

Merit review is a critical component of NSF's decision making process for funding research and education projects. The Foundation strongly believes that award selections based on a competitive merit review process with peer evaluation ensure those ideas from the strongest researchers and educators will be identified.

During FY 2000, OMB revised the federal goal, stating that 70-90% of research and development funds should be awarded to merit reviewed projects. However, under the new definition, federally funded research and development centers (FFRDCs) and merit-reviewed scientific research with competitive selection and internal (program) evaluation will not be considered merit reviewed. Taking into account the new definition, NSF has revised its target for FY 2001 to 85%.

Based on the most recent definitions from OMB, the revised percent of project funding is:

<b>FY2000 Goal:</b>	<b>80% (est.)</b>
<b>FY2000 Result:</b>	<b>87%</b>

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## Investment Process Goal 2 - Implementation of Merit Review Criteria

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NSF performance in implementation of the new merit review criteria is successful when reviewers address the elements of both generic review criteria appropriate to the proposal at hand and when program officers take the information provided into account in their decisions on awards, as judged by external independent experts.

*Performance Indicator:* Use of merit review criteria by reviewers and program staff.

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*Results:* **This goal was not achieved.** About one-third of the evaluation reports rated NSF programs as successful in their use of the new merit review criteria. In most cases where NSF was rated not fully successful, reviewers and applicants were not fully addressing the second criterion regarding the broader impacts of the proposed activity.

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In FY 1999, NSF revised its merit review criteria in order to simplify and harmonize them with the NSF strategic plan. The two merit review criteria now in place, established by the National Science Board, are designed to weigh a proposal's technical merit, creativity, educational impact, and potential benefits to society. For this goal, advisory committees for each NSF directorate use the GPRA alternative format to judge how well NSF is implementing the two merit review criteria.

Full implementation of this goal is a priority for NSF in FY 2001 and beyond. To do so requires information to be included in proposals, addressed by reviewers, and taken into account by program staff. A number of measures have been undertaken, e.g., program announcements have been modified to encourage applicants and reviewers to address these criteria in proposals and reviews and NSF has recently re-issued guidance to the applicants and reviewers, stressing the importance of using both criteria in the preparation and evaluation of proposals submitted to NSF. NSF is considering taking additional steps to ensure that applicants address these criteria when reporting project results. Also, for FY 2001, different on-screen pages have been provided in FastLane, NSF's electronic data system, so reviewers can address each merit-review criterion separately. The performance data will be collected from the FastLane database.

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### Investment Process Goal 3 – Customer Service/General

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Identify possible reasons for customer dissatisfaction with NSF's merit review system and with NSF's complaint system.

*Performance Indicator:* Results of NSF applicant survey, awardee survey, and regional grants seminars.

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*Results: This goal was achieved.* In FY 2000, NSF commissioned additional surveys including the ACSI\* survey of awardees only and regional grants seminar surveys, designed to identify the reasons for Principal Investigator dissatisfaction with the timeliness and efficiency of the proposal process, the quality and fairness of the merit review process, and the handling of customer complaints.

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The survey results indicate that NSF customers' primary concern regarding the timeliness and efficiency of the proposal process is the time it takes NSF to reach a funding decision. NSF is striving to improve the time to decision (see Goal 7). Applicants who stated that they have a specific problem or concern with the quality or fairness of merit review identified two primary concerns: reviews were inappropriate (i.e., reviews did not seem to adequately address the proposed project, in the opinion of the applicant) and reviews were uneven (i.e., the range of review scores included both high and low scores). Finally, survey participants who stated that they had complained to NSF described the nature of their complaints primarily in three ways: (1) concern about overall quality or fairness of proposal merit review process; (2) problem submitting a proposal, review, or project via FastLane; and (3) problem making timely contact with appropriate person at NSF. This feedback is helping NSF to focus its efforts to improve customer service.

*\*For the past two years, NSF has participated along with about 30 other federal agencies in a national assessment of customer satisfaction. The mechanism used to assess customer satisfaction is the American Customer Satisfaction Index (ACSI), a cross-industry index of customer satisfaction. This index is generated by the University of Michigan based on customer surveys.*



### Investment Process Goal 4 – Customer Service/General

Identify best practices and training necessary for NSF staff to conduct merit review and answer questions about the review criteria and process. Identify best practices and training necessary for NSF staff to answer questions from the community and to deal with complaints in a forthright manner.

*Performance Indicator:* Development of models of best practices and NSF staff training, where appropriate.

*Results:* **This goal was not achieved.** During FY 2000, NSF conducted customer service surveys and solicited other forms of feedback in an effort to pinpoint specific customer issues and to identify effective practices for handling customer complaints within NSF. Further, other federal agencies were examined to locate a model with similar customer interactions, but no appropriate model was identified. As a result of this input, some priorities for action have been identified. However, models of best practices and NSF staff training are still being developed in FY 2001. NSF continues to place great importance on these issues and will complete this effort in FY 2001. In addition, NSF will pilot the best of the models in NSF divisions and provide specific customer service training to NSF staff.

### Investment Process Goal 5 – Customer Service/General

Improve NSF’s overall ACSI index compared to the FY 1999 index of 57, on a scale of 0-100. (See Investment Process Goal 3.)

*Performance Indicator:* Results of the ACSI survey.

*Results:* **This goal was achieved.** NSF achieved an ACSI index of 58 in FY 2000.

The Foundation's 1999 ACSI results indicated that NSF grant applicants generally held NSF in high regard and gave it high marks for the accessibility and usefulness of its information. However, the Foundation received only mid-level evaluations for its merit review process and for its handling of customer complaints. NSF began to examine these issues through additional customer surveys in FY 2000, per Investment Process Goal 3 above.

The 2000 ACSI survey indicated that NSF improved slightly in two key areas: (1) timeliness and efficiency of the proposal process and (2) quality and fairness of merit review. These were two of the areas of greatest concern from the FY 1999 survey. NSF will continue to address customer concerns; see Investment Process Goals 6 and 7.

Results of the ACSI survey

FY1999	57
<b>FY2000 Goal:</b>	<b>&gt;57</b>
<b>FY2000 Result:</b>	<b>58</b>

Percent of program announcements/solicitations available at least 3 months prior to deadline/target dates

FY1998 Baseline	66%
FY1999	75%
<b>FY2000 Goal:</b>	<b>95%</b>
<b>FY2000 Result:</b>	<b>89%</b>

### Investment Process Goal 6 – Time to Prepare Proposals

95% of program announcements and solicitations will be available at least three months prior to proposal deadlines or target dates.

*Customer service standard:* To make program announcements and solicitations available to relevant individuals and organizations at least three months prior to the proposal deadline or target date.

*Performance Indicator:* Percent of program announcements and solicitations available at least three months prior to proposal deadlines or target dates.

**Results: This goal was not achieved.** This customer service standard was established in response to a survey of NSF applicants who indicated that having a minimum of three months between program announcements and proposal deadlines was valued highly. In FY 2000, 89% of program announcements and solicitations were made available at least three months prior to their deadline/target date. Approximately 8% of program announcements and solicitations missed the 90-day time limit by fewer than 5 days. This is a significant improvement over FY 1999, when 75% of announcements met the three-month standard.

In FY 2000, a Web-based system for creating program announcements was put into place; this system is expected to decrease the time required for an announcement to be posted on the NSF Web site, which should aid the agency in achieving this goal. However, since this is the first year of implementation, not all announcements are being prepared using this system. NSF expects that there will be increased usage of this system and additional progress toward meeting this goal next year.

Percent of proposals processed within six months:

FY1996	42%
FY1997	61%
FY1998	59%
FY1999	58%
<b>FY2000 Goal:</b>	<b>70%</b>
<b>FY2000 Result:</b>	<b>54%</b>

### Investment Process Goal 7 – Time to Decision

Maintain the FY 1999 goal to process 70% of proposals within six months of receipt, improving upon the FY 1998 baseline of 59%.

*Customer Service Standard:* NSF's long term goal continues to be processing 95% of proposals within six months of receipt. In other words, NSF should be able to tell applicants whether their proposals have been declined or recommended for funding within six months of receiving them.

*Performance Indicator:* Percent of proposals processed within six months of receipt.

**Results: This goal was not achieved.** This customer service standard was established in response to a survey of NSF applicants who indicated that processing proposals within six months of receipt was valued highly. In FY 1999, 58% of proposals were processed within six months of receipt, somewhat better than the 52% average rate over the last five years, but nevertheless short of the 70% goal. In FY 2000, 54% of proposals were processed within six months of receipt, while an additional 35% of proposals were processed between six and nine months of receipt.

NSF recognizes the validity of the community's interest in this customer service standard and is striving to expedite the time between proposal submission and agency decision without jeopardizing the quality and integrity of the review process. One factor leading to delay in awards processing is that some programs at NSF prefer to conduct merit review through the mail rather than by a panel. Mail reviews often take longer to implement.

Another factor is that programs tend to hold some highly rated proposals until the end of the fiscal year, or even into the next fiscal year, in anticipation that more funds might become available. In FY 2000, a few programs reported temporary staffing shortages, which slowed down their review process. This situation has been corrected.

In FY 2001, NSF staff will work towards shortening the award processing time by making more effective use of electronic mechanisms in conducting the review, working cooperatively to eliminate overloads and bottlenecks, and carefully tracking the stage of processing and age of all proposals. In addition, some directorates are reconsidering the practice of holding over proposals for potential funding until the next fiscal year, while some divisions have added “performance on prompt handling of proposals” to their performance evaluation criteria. Moreover, NSF is committed to increasing staffing in FY 2001, to accommodate the anticipated increase in proposals associated with the budget increase and the major initiatives.

This goal will be maintained in FY 2001.

### Investment Process Goal 8 – Maintaining Openness in the System

The percentage of competitive research grants going to new investigators will be at least 30%, 3% over the FY 1998 baseline of 27%.

*Performance Indicator:* Percent of competitive research grants going to new investigators.

*Results:* **This goal was not achieved.** The percentage of competitive research grants to new investigators was 28% in FY 2000, one percent higher than in FY 1999.

NSF believes that it is important that the proposal and award process be open to new people and new ideas, to help ensure that NSF is supporting research at the frontier of science and engineering. NSF is committed to maintaining openness in the system and will strive to increase the percentage of awards to new investigators.

This goal will be maintained in FY 2001. This is a challenging goal for NSF. NSF will continue to seek creative and innovative proposals from new investigators. Program staff will attend scientific meetings, conferences, and conventions and will conduct site visits to promote awareness of the research opportunities at NSF and to encourage new investigators to submit proposals. NSF will examine trends, such as whether the pool of new investigators is smaller than in previous years or whether they are submitting fewer proposals, and if needed, use this information to modify targets in the future.

Percent of research grants going to new investigators

FY1996	27%
FY1997	27%
FY1998	27%
FY1999	27%
<b>FY2000 Goal:</b>	<b>30%</b>
<b>FY2000 Result:</b>	<b>28%</b>

### Investment Process Goal 9 – Proposer Attention to Integration of Research and Education

NSF will develop a plan and system to request that Principal Investigators (PIs) address the integration of research and education in their proposals, and develop and implement a system to verify that PIs have done so.

*Performance Indicator:* Outreach to community; implementation of system to verify that PIs address the integration of research and education in proposals.

**Results: This goal was achieved.**

In FY 2000, NSF implemented an electronic program announcement template clearance process (PAT) that is used by NSF staff to generate announcements and solicitations. Use of the PAT ensures that PIs are asked to address the integration of research and education in all announcements and solicitations. In addition, the Foundation has included language in the *Proposal and Award Manual*, the *Grant Proposal Guide*, and the *FY 2000 Guide to Programs* regarding the integration of research and education.

In order to verify that PIs are addressing the integration of research and education, NSF asks Committees of Visitors (COVs) to assess whether the broader impacts of the proposed activity are being addressed in proposals. The COV reporting template has been modified to explicitly address the use of both merit review criteria.

This goal will not be continued in FY 2001, but will be replaced by goals addressing broader use of the merit review criteria by reviewers and staff, which encompasses this goal.

### Investment Process Goal 10 – Reviewer Attention to Integration of Research and Education

NSF will develop and implement a system/mechanism to request and track reviewer comments tied to the merit review criterion, “What are the broader impacts of the proposed activity?”

*Performance Indicator:* Outreach to community; implementation of system to track reviewer comments.

**Results: This goal was achieved.**

During FY 2000, screens were added in FastLane, NSF’s electronic proposal and review system, so reviewers can address each merit-review criterion separately. The performance data will be collected from the FastLane database.

NSF has modified program announcements to encourage applicants and reviewers to address these criteria in proposals and reviews. NSF has recently re-issued guidance to the applicants and reviewers, stressing the importance of addressing both merit review criteria in the preparation and evaluation of proposals submitted to NSF. NSF staff continue to stress the importance of reviewers addressing the “broader impacts” criterion whenever they attend NSF sponsored seminars, science meetings, site visits, conferences, and conventions. NSF is considering taking additional steps to ensure that applicants address these criteria when reporting project results.

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### Investment Process Goal 11 – Diversity of NSF applicants

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NSF will identify mechanisms to increase the number of women and underrepresented minorities in the proposal applicant pool, and will identify mechanisms to retain that pool. (Revised goal; no baseline.)

*Performance Indicator:* Mechanisms to attract proposals from members of underrepresented groups in order to increase the total applicant pool; mechanisms to retain the applicant pool.

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*Results:* **This goal was achieved.**

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NSF is committed to the principle of diversity and deems it central to the programs, projects, and activities it considers and supports. NSF continues to work toward increasing diversity in its applicant pool:

- ▶ To place the issue on equal footing as the quality of research being supported, NSF issued Important Notice No. 125 to presidents of universities and colleges encouraging PIs to address the merit review criterion – what are the broader impacts of the proposed activity, which embraces integrating diversity into all NSF supported activities;
- ▶ Developed and increased funding for specialized programs designed to promote diversity;
- ▶ Recruited members of underrepresented groups for merit review panels, COVs, and NSF workshops and conferences; and
- ▶ Strongly encouraged women, minorities, and persons with disabilities to compete fully in NSF programs.

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## Investment Process Goals 12 to 15 – Facilities Oversight

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The following goals are for federal science, space and technology agencies that support construction projects and have responsibility for managing facilities (NSF, NASA, DOE).

In FY 1999, NSF developed a general facilities reporting template for use in reporting on the facilities management goals. This reporting system was linked to the new Project Reporting System as a module of the existing FastLane system. Facility managers located at the facility site report data to NSF using this reporting system.

In FY 2000, NSF reviewed the data collection and reporting effort and made modifications to the system where appropriate. This included allowing for reporting on construction/upgrade activities at facilities funded through the Research and Related Activities account, refining the on-screen language to be more clear and to more accurately address the facilities goals, automating most of the output, and instituting a stage for collecting estimates.

### Construction and Upgrade:

*Performance Indicators:* Comparison with planned annual cost, planned annual schedule, and planned total cost.

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### GOAL 12: Maintain the FY 1999 goal to keep construction and upgrades within annual expenditure plan, not to exceed 110% of estimates.

*Results:* **This goal was achieved.** Of the 11 construction and upgrade projects supported by NSF, all were within annual expenditure plans.

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### GOAL 13: Maintain the FY 1999 goal to keep construction and upgrades within annual schedule, total time required for major components of the project not to exceed 110% of estimates.

*Results:* **This goal was not achieved.** Of the 11 construction and upgrade projects supported by NSF, seven were within the annual schedule goal. In several cases, missed milestones were due to circumstances beyond the project manager's control. For example, one construction project was dependent upon the research and development of new instrumentation, the results of which were delayed. In another project, the missed milestone was due to difficulty obtaining required parts, non-performance of a sub-contractor, and underestimation of the complexity of the work. In FY 2001, NSF program managers are working more closely with project managers to ensure all NSF-supported construction/upgrade projects achieve this goal.

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**GOAL 14:** For all construction and upgrade projects initiated after 1996, when current planning processes were put in place, keep total cost within 110% of estimates made at the initiation of construction.

*Results:* **This goal did not apply;** there were no construction projects completed in FY 2000.

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**Operations:**

*Performance Indicator:* Comparison to scheduled operating time.

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**GOAL 15:** Maintain the FY 1999 goal to keep operating time lost due to unscheduled downtime to less than 10% of the total scheduled possible operating time.

*Results:* **This goal was not achieved.** Of the 26 reporting facilities, 22 met the goal of keeping unscheduled downtime to below 10% of the total scheduled operating time. NSF program staff will work more closely with project managers to ensure that all achieve this goal in FY 2001.

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◀ Sunset over Cerro Tololo Inter-American Observatory in La Serena, Chile—part of the National Optical Astronomy Observatories supported by the National Science Foundation.

*NSF Collection*

# Other Reporting Requirements

## **Management and Performance Challenges**

As required by the Reports Consolidation Act of 2000, the following is the Inspector General's Statement Concerning NSF's Most Serious Management and Performance Challenges. It is followed by the Director's Response.

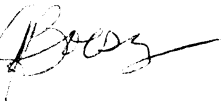
**NATIONAL SCIENCE FOUNDATION**  
4201 WILSON BOULEVARD  
ARLINGTON, VIRGINIA 22230



OFFICE OF  
INSPECTOR GENERAL

January 4, 2001

To: Dr. Rita R. Colwell  
NSF Director

From: Christine C. Boesz, Dr. P.H.   
Inspector General

Subject: IG's Statement Concerning NSF's Most Serious Management and Performance Challenges

As you may be aware, the Reports Consolidation Act of 2000 (P.L. 106-531) was signed into law on November 22, 2000. This legislation authorizes Federal agencies to consolidate several statutorily required financial and performance management reports into one annual accountability report. The Act also requires that the Inspector General (IG) provide the agency head with a statement summarizing what the IG considers to be the most serious management and performance challenges facing the agency and briefly assess the agency's progress in addressing those challenges. The Act requires that the IG's statement be included in the agency's accountability report and allows the agency head to comment, but not modify the IG's statement.

In accordance with this law, my statement of NSF's most serious management and performance challenges is provided in the attached document. This statement identifies the same challenges that we provided to the Senate Committee on Governmental Affairs on November 30, 2000, in response to a similar request which I have already discussed with you. The only differences are that this statement refers to the challenges as "management and performance" challenges as opposed to management challenges, includes minor editorial changes to reflect the statement's current issuance date, and clarifies NSF's desire to diversify its peer review community. These minor changes are highlighted on the attached statement. Although we do not request a response from you to this letter, the Act does afford you the opportunity to include your comments in the accountability report. It is my understanding that Mr. Cooley is aware of the requirements of this new legislation and will be providing you with a draft response for your review.

Please do not hesitate to contact me regarding any questions or concerns you may have with this statement.

## Inspector General's Statement Concerning NSF's Management and Performance Challenges

NSF celebrated its 50<sup>th</sup> year in 2000. I believe it continues to be one of the federal government's most cost-efficient agencies. It is a leading proponent of streamlined management practices and leads in the use of advanced information technologies. As we begin the new millennium, NSF remains the only federal agency dedicated to supporting basic scientific and engineering research and education programs at all levels and in all fields pertaining to science and engineering.

I want to emphasize that, in my opinion, NSF does not have any serious management problems. As an innovative government agency, dedicated to maintaining American leadership in discovery and the development of new technologies across the frontiers of scientific and engineering knowledge, NSF has management challenges which are being acknowledged and addressed. The ten challenges which the Office of Inspector General has identified through audits and general knowledge of NSF's operating policies and practices fall into four broad categories that are consistent with NSF's own assessment of its management control challenges. The four areas are 1) System and Data Management, 2) Program Management, 3) Staffing and Human Resource Management, and 4) Security and Controls. I am pleased to report that NSF continues to improve its operations and responds enthusiastically to our recommendations in all of these areas.

The specific challenges that I believe will be most important over the next year are described below, grouped by NSF's management control challenges.

### 1. System and Data Management

**FastLane:** In the FY2001 budget, OMB identifies streamlining and simplifying grants management as one of the most important management challenges facing the federal government. At NSF, the development and implementation of FastLane, which began in 1994, has moved the agency closer to the goal of establishing a widely accessible paperless proposal and award process. In many respects the implementation has been successful and NSF serves as a leader within government in electronic innovation. The increase in the use of FastLane by those seeking grants each year has been encouraging and has undoubtedly helped contribute to the increase in productivity NSF has achieved in recent years. However, problems remain, as reflected by the inability of the help desk to cope with the high volume of incoming questions and problems. Because FastLane serves as the primary interface between NSF and its grantees and is critical to many of NSF's administrative plans and goals, we believe that management must continue to monitor its progress and assure that the system is as user-friendly and reliable as possible.

**GPRA Data Quality:** GPRA seeks to improve the effectiveness, efficiency and accountability of federal programs by requiring agencies to set goals for performance and report on annual performance compared with the goals. In addition, it requires agencies to "describe the means to be used to verify and validate measured values" of performance in their performance plans. A recent GAO study, Managing for Results: Opportunities for Continued Improvements in

Agencies Performance Plans (GAO/GGD/AIMD-99-215), said that a key weakness of NSF's FY2000 Performance Plan is that it "provides limited confidence in the validation and verification of data." Meanwhile, the agency has contracted with several firms to assist in validating the performance data it reports. However, if uncertainty persists about data validity, decision-makers will be reluctant to rely on the information, and its usefulness will be diminished.

## 2. Program Management

**Merit Review:** Because of its importance to the success of NSF's mission, the merit review system remains on our list of management challenges. Operating a viable, credible, efficient merit review system is one of four critical factors identified by the agency in managing for excellence. NSF must continue to ensure that: reviewers correctly apply NSF's review criteria; due consideration is given to ideas, individuals and institutions that have not received past support; and that the process is fairly and effectively administered.

In particular, we believe that the agency has opportunities to improve in two areas. We believe that NSF should enhance its effort to expand the peer review community to ensure diversity with respect to race, gender, geography, and type of school, providing the chance to participate to all who are qualified. In our view, the selection of peer reviewers is an opportunity for NSF to reach out to underrepresented segments of the scientific community and educate them about the process of obtaining federal support for their research. This will help to generate proposals from those who may have worthy research ideas but are unfamiliar with, or intimidated by, the system. Secondly, we are concerned about the agency's ability to maintain the confidentiality of proposals in an electronic environment. As more proposal review functions migrate to the internet, NSF must be able to ensure that the intellectual property contained in a proposal is secure.

**Cost Sharing:** In accordance with Congressional requirements, NSF requires that each grantee share in the cost of NSF research projects resulting from unsolicited proposals. In addition to this statutory requirement, NSF can require additional cost sharing when it believes there is tangible benefit to the award recipient, such as infrastructure development or the potential for program income. When cost sharing is provided for in the approved award budget, it is presumed that the funds are necessary to accomplish the objectives of the award. The commitment becomes a condition of the award and subject to audit to the same extent as the costs borne by NSF. Therefore, if promised cost sharing is not realized, then either the awardee has not met its programmatic objectives, or the project costs less than originally projected. In either case, NSF should have at least a portion of its funds returned to it.

We have been finding significant problems with awardees who are failing to meet their cost sharing requirements. In the past semi-annual period, we found several awardees with significant problems in this regard, discussed in more detail in our September 2000 Semiannual Report. We are continuing to focus our efforts in this area and are currently conducting a broad review of cost sharing at numerous institutions. Because of the importance of these research efforts to the scientific and engineering community, and the detrimental impact a shortfall can

have on a project, we consider improvements in administering cost sharing to be among the most important priorities for NSF management.

**Award Administration:** NSF's mission is to fund research and education in science and engineering by issuing different types of awards (primarily grants, contracts, and cooperative agreements) thereby strengthening U.S. science and engineering. Assessing scientific progress and ensuring effective financial/administrative management are critical elements in managing NSF's grant programs. Program officers in each of NSF's seven science Directorates are responsible for monitoring the scientific progress of NSF's grants while the Division of Grants and Agreements (DGA) and the Division of Contracts, Policy, and Oversight (CPO) oversee grantees' financial management of NSF awards.

At any one point in time NSF is administering as many as 30,000 ongoing awards. NSF relies on a total staff of 1,150 employees to carry out this oversight responsibility. This is in addition to their responsibility of soliciting and awarding approximately 10,000 grants and cooperative agreements annually amounting to over \$3.5 billion. Given this sizeable workload, NSF is challenged to adequately monitor its awards for scientific accomplishments and compliance with the award agreement and federal regulations. For the most part, NSF relies on interim reports from grantees to monitor progress, but is unable to test the reliability of these reports. NSF also needs to establish a more coordinated oversight effort between its program officers and its grant and contract officers to ensure better sharing of information and more effective action to address compliance issues.

**Management of Large Infrastructure Projects:** NSF is increasing its investments in large infrastructure projects such as astronomy centers, research equipment, supercomputing databases, and earthquake simulators. The agency spends approximately \$1 billion a year on these research facilities and equipment projects, with each of these projects costing several hundred million dollars. Projects of this scale and complexity are becoming more common for NSF, which historically has administered awards averaging less than \$100,000 each. Successful management of these projects and programs requires a more disciplined project management approach. Management of these projects is particularly challenging for NSF because of its limited number of staff. Although NSF recently issued guidelines for managing these larger projects, the guidelines are interim and have not been fully tested for adequacy.

**Management of U.S. Antarctic Program:** NSF plays a leadership role among federal agencies involved in supporting research and logistics in the Antarctic through its Office of Polar Programs (OPP). Charged with managing all U.S. activities in the Antarctic as a single program, OPP not only funds research, but also is responsible for operating the infrastructure and logistics necessary to conduct scientific experiments in the harsh polar environment. In this role, it faces a number of unique challenges such as transporting and housing scientists and support staff, assuring their safety and health, protecting the near pristine polar surroundings, ensuring U.S. compliance with the international Antarctic Treaty, and promoting the national interest in maintaining an active and influential presence in Antarctica.

While OPP operates like other NSF directorates in making awards for polar research, its responsibilities do not end there. In providing science, operations, and logistics support to the

research projects it funds, it is significantly different than other NSF units. OPP staff must not only know the science, but must also be able to manage contractors engaged in delivering a broad range of services to the American scientific community located in a difficult and dangerous environment. Our audit work has focused on reviewing these activities because of their many inherent risks. From our perspective, NSF's polar programs involve not only a large expenditure of money, but also the safety of scientists and workers, environmental concerns, and the prestige of the U.S. government. The successful operation of the United States Antarctic Program requires certain management and administrative skills that are responsive to the special needs of Antarctic scientific research.

### 3. Staffing and Human Resource Management

**Work Force Planning and Training:** Although NSF has had healthy increases in its program responsibilities and budgets in recent years, salaries and expenses have remained relatively flat. NSF received an increase of 13.6 percent in its FY2001 budget; however an increase of only 6 percent was obtained for salaries and expenses. While we commend the agency for successfully controlling its administrative overhead, the small increases allocated for administration and management over the past few years raise questions about whether NSF can successfully manage future growth without adding more staff. Concerns about the adequacy of staffing come at a time when the government as a whole is facing succession planning and recruiting problems. In addition, NSF's reliance on the Intergovernmental Personnel Act (IPA) personnel, who serve on a term basis, poses a challenge to the agency to make certain that personnel are adequately trained to administer grants. We are planning audit work in this area to ensure that the agency has a reasonable strategy for managing its human capital.

**Fostering a Diverse Scientific Workforce:** NSF is committed to increasing the diversity of the nation's science and engineering workforce by embedding diversity concerns in all of its programs. In its strategic plan, NSF says it aims at new strategies for improving diversity and broadening participation in NSF-funded activities. NSF's most recent performance plan promises that the agency will begin implementing new strategies to increase diversity. NSF executives and managers frequently stress the importance of diversity in presentations to internal and external audiences. Because diversity programs are difficult to implement in a society challenged by economic, legal, and cultural constraints, NSF faces numerous challenges and should clearly define its diversity strategies and develop concrete steps (beyond giving general encouragement to its program managers) for attaining its goals in this area.

### 4. Security and Controls

**Data Security:** Electronic information and automated systems are essential to NSF's operations. Next year NSF will depend on its automated computer systems to manage over \$4 billion in funds, receive and process over 35,000 grant proposals, handle over \$3 billion in cash transactions to NSF awardees, generate its agency wide financial statements, and support a government wide website for federal financial management initiatives and activities. Therefore, it is imperative that NSF's systems are developed and operated with appropriate security controls to reduce the ever increasing risk of unauthorized access. NSF must be able to protect the availability, integrity, and confidentiality of its computer based information. Improvement is

most needed in the areas of access controls and change controls. Access controls limit or detect inappropriate access to computer resources, while change controls prevent unauthorized modifications to programs from being implemented. The audit of NSF's financial statements has identified several internal control weaknesses related to security of NSF's automated systems, although none were material or rose to the level of a reportable condition.

**MEMORANDUM**

**DATE:** January 26, 2001

**FROM:** Dr. Rita R. Colwell  
Director

**SUBJ:** Response to the Inspector General's Statement of the National Science Foundation's Most Serious Management and Performance Challenges

**TO:** Christine C. Boesz, Dr. P.H.  
Inspector General

I want to thank you for your memorandum dated January 4, 2001 on the National Science Foundation's performance and management challenges as authorized by the Reports Consolidation Act of 2000 (Public Law 106-531).

I welcome your assessment that NSF continues to be one of the federal government's most cost-effective agencies and does not have any serious management challenges.

Like many organizations, NSF faces a world changing more rapidly than ever before. With change come performance and management challenges NSF must address in order to sustain the high level of effectiveness in our business operations. We pride ourselves on being the premiere federal agency to invest in the people, tools and ideas that our nation needs for a 21<sup>st</sup> century research and education enterprise.

The four broad areas of management and performance challenges that you have identified; Systems and Data Management; Program Management; Staffing and Human Resource Management; and Security and Controls are consistent with NSF's senior management assessment of areas which require our attention to assure improvement of our long-term operating performance.

As you know, some of these challenges are difficult. We have started to address several of them with our workforce planning study and a recent independent assessment of our GPRA validation and verification processes. I have confidence that with these efforts, as well as recommendations from our various advisory committees and the NSF Management Controls Committee, we will develop solid strategic and implementation plans to address the challenges before us. Also, as you point out, any plan to address these challenges should

identify the need and fulfillment of additional agency resources to keep pace with our increasing workload.

I appreciate your insight into our agency management and performances challenges and look forward to working with your office to effectively address them.



Rita R. Colwell



## Debt Collection Improvement Act of 1996

Net Accounts Receivable totaled \$4,654,371 at September 30, 2000. Of that amount, \$3,996,660 was receivable from other federal agencies. The remaining \$657,711 was receivable from the public. NSF fully participates in the Department of the Treasury Cross-Servicing Program. In accordance with the Debt Collection Improvement Act, this program allows NSF to refer debts that are delinquent more than 180 days to the Department of the Treasury for appropriate action to collect those accounts. Additionally, NSF seeks Department of Justice concurrence for action on items over \$100,000.

## Civil Monetary Penalty Act

There were no Civil Monetary Penalties assessed by NSF during the relevant financial statement reporting period.

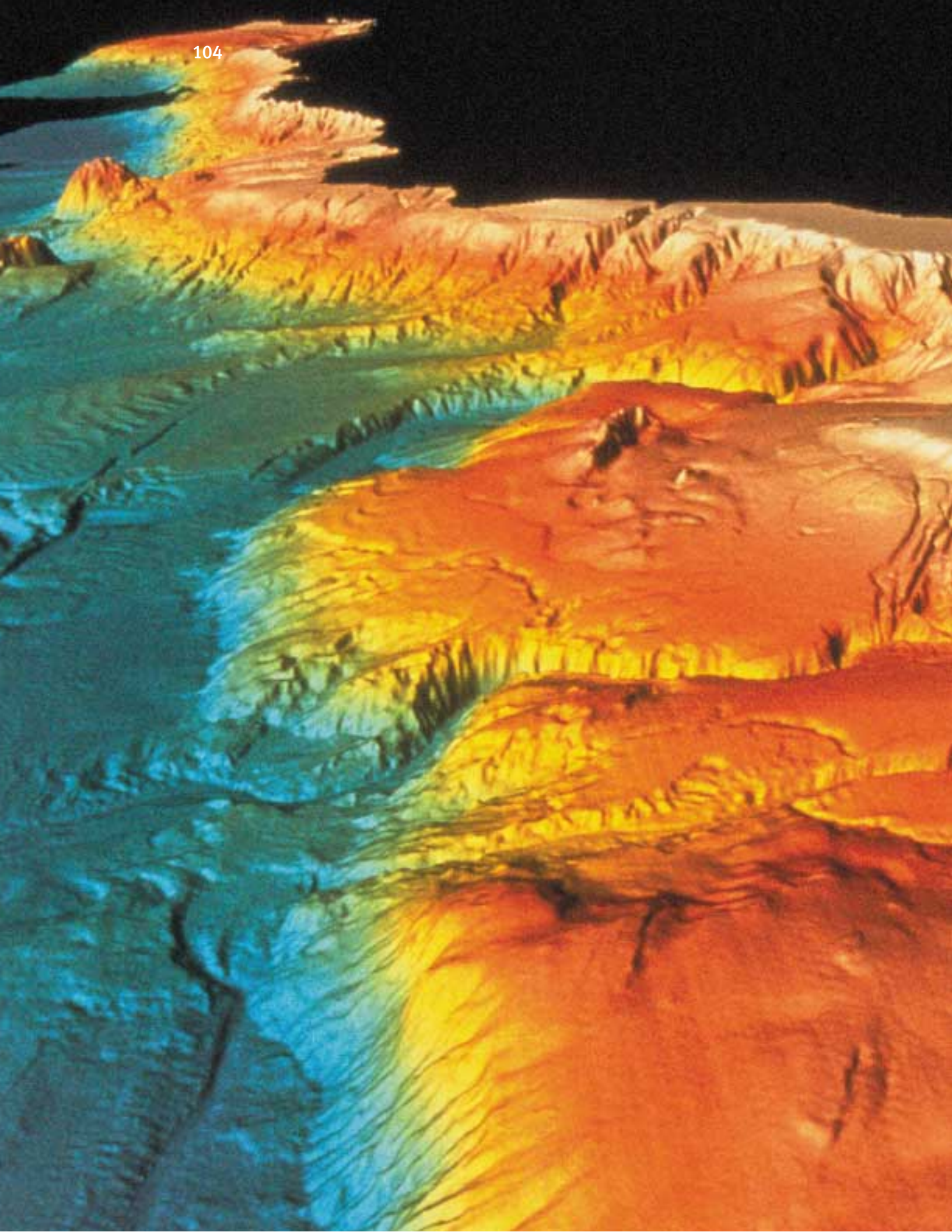
## Prompt Payment Act

NSF continues to strive for the highest levels of electronic fund transfers (EFT) payments required by the Prompt Payment Act. Payroll, vendor and grantee payment transactions are made by EFT. Only payments made to foreign banks were made by paper check. Interest payments under the Prompt Payment Act in fiscal year 2000 were minimal.

## Patents and Inventions Resulting From NSF Support

The NSF's Accountability Report also serves as the Foundation's Annual Report. As such, the following information about inventions is being reported in compliance with Section 3(f) of the National Science Foundation Act of 1950, as amended [42 U.S.C. 1862(f)]:

*In FY 2000, the Foundation received 358 invention disclosures. Rights to these inventions were allocated in accordance with Chapter 18 of Title 35 of the United States Code, commonly called the "Bayh-Dole Act."*



- ◀ Oblique topographic relief map of the Pacific Ocean floor, continental margin and coastline of California near Monterey showing deep sea canyons and fault scarps. NSF-funded investigations are helping to understand the structure and dynamics of the offshore coast region. These studies will lead to improved knowledge of the seismic and slumping hazards related to active deformation in the area.

*Image courtesy of Bill Haxby,  
Lamont Doherty Earth Observatory of Columbia University*

# Appendix

## DESCRIPTION OF NSF DIRECTORATES AND MANAGEMENT OFFICES

**The Directorate for Biological Sciences (BIO)** supports research programs ranging from the study of the structure and dynamics of biological molecules, such as proteins and nucleic acids, through cells, organs and organisms, to studies of populations and ecosystems. It encompasses processes that are internal to the organism as well as those that are external, and includes temporal frameworks ranging from measurements in real time through individual life spans, to the full scope of evolutionary times. Among the research programs BIO supports is research that will advance understanding of the structure, organization and function of plant genomes.

**The Directorate for Computer and Information Science and Engineering (CISE)** supports research on the theory and foundations of computing, system software and computer system design, human-computer interaction, as well as prototyping, testing and development of cutting-edge computing and communications systems to address complex research problems. CISE also provides the advanced computing and networking capabilities needed by academic researchers for cutting-edge research in all science and engineering fields. Among programs supported by CISE is the Partnerships for Advance Computational Infrastructure (PACI), a program that focuses on developing and providing the most advanced computing capabilities.

**The Directorate for Education and Human Resources (EHR)** supports a cohesive and comprehensive set of activities that encompass every level of education and every region of the country. EHR promotes public science literacy and plays a major role in the Foundation's long-standing commitment to developing our nation's human resources for the science and engineering workforce of the future. Focus is given to programs that encourage the participation and achievement of groups underrepresented in science and engineering. NSF-supported education and training programs cover a broad spectrum—from supporting students and teachers to creating new ways of teaching and learning to assisting school districts and other systems forge greater gains in learning.

**The Directorate for Engineering (ENG)** supports research and education activities that spur new technological innovations and create new products and services and more productive enterprises. ENG also makes critical investments in facilities, networks and people to assure diversity and quality in the nation's infrastructure for engineering education and research. Funding is included within ENG to meet the mandated level for the Foundation-wide Small Business Innovation Research (SBIR) program.

**The Directorate for Geosciences (GEO)** supports research in the atmospheric, earth and ocean sciences. Basic research in the Geosciences advances our scientific knowledge of the Earth and advances our ability to predict natural phenomena of economic and human significance, such as climate change, weather, earthquakes, fish-stock fluctuations, and disruptive events in the solar-terrestrial environment. GEO also supports the operation of national user facilities.

**The Directorate for Mathematical and Physical Sciences (MPS)** supports research and education in astronomical sciences, chemistry, materials research, mathematical sciences and physics. Major equipment and instrumentation such as telescopes and particle accelerators are provided to support the needs of individual investigators. MPS also supports state-of-the-art facilities that enable research at the cutting edge of science and research opportunities in totally new directions.

**The Directorate for Social, Behavioral and Economic Sciences (SBE)** supports research to build fundamental scientific knowledge about human characteristics and behavior. SBE also facilitates international scientific cooperation and provides U.S. scientists and engineers with access to centers of excellence in science and engineering research and education throughout the world. To improve understanding of the science and engineering enterprise, SBE also supports science resource studies.

**The Office of Polar Programs (OPP)**, which includes the U.S. Polar Research Programs and U.S. Antarctic Logistical Support Activities, supports multi-disciplinary research in Arctic and Antarctic regions. The polar regions are geographic frontiers which provide premier natural laboratories and unique research opportunities, ranging from studies of the earth, ice and oceans to research in atmospheric sciences and astronomy.

**The Office of Budget, Finance and Award Management (BFA)** is headed by the Chief Financial Officer who has responsibility for budget, financial management, grants administration and procurement operations and related policy. Budget responsibilities include the development of the Foundation's annual budget, long range planning and budget operations and control. BFA's financial, grants and other administrative management systems ensure that the Foundation's resources are well managed and that efficient, streamlined business and management practices are in place. NSF has been acknowledged as a leader in the federal research administration community, especially in its pursuit of a paperless environment that provides more timely, efficient awards administration. BFA is also custodian of FinanceNet ([www.financenet.gov](http://www.financenet.gov)), the federal government's Internet website for financial management information originally developed by NSF.

**The Office of Information and Resource Management (OIRM)** provides information systems, human resource management, and general administrative and logistic support functions to the NSF community of scientists, engineers, and educators as well as to the general public. OIRM is responsible for supporting staffing and personnel service requirements for staff members including visiting scientists; NSF's physical infrastructure; dissemination of information about NSF programs to the external community; and administration of NSF's sophisticated technological infrastructure, providing the hardware, software and support systems necessary to manage the Foundation's grant-making process and to maintain advance financial and accounting systems.

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**Office of Budget, Finance and  
Award Management**

Thomas N. Cooley, Director

**Office of Information and  
Resource Management**

Linda P. Massaro, Director

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**NSF Officers**

**Chief Financial Officer**

Thomas N. Cooley (Office of Budget,  
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**Chief Information Officer**

Linda P. Massaro (Office of Information and  
Resource Management)

**NSF Affirmative Action Officer**

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Dr. Marta Cehelsky,  
Executive Officer, National Science Board

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## List of Acronyms

<b>AC</b>	.....Advisory Committee
<b>ACSI</b>	.....American Customer Satisfaction Index
<b>BFA</b>	.....Office of Budget, Finance, and Award Management
<b>BIO</b>	.....Directorate for Biological Sciences
<b>CFO</b>	.....Chief Financial Officer
<b>CIP</b>	.....Construction in Progress
<b>CISE</b>	.....Directorate for Computer and Information Science and Engineering
<b>COV</b>	.....Committee of Visitors
<b>CSRS</b>	.....Civil Service Retirement System
<b>DOE</b>	.....U.S. Department of Energy
<b>DOL</b>	.....U.S. Department of Labor
<b>EFT</b>	.....Electronic Fund Transfers
<b>EHR</b>	.....Directorate for Education and Human Resources
<b>ENG</b>	.....Directorate for Engineering
<b>ESS</b>	.....Employee Self Service
<b>ETS</b>	.....Electronic Travel System
<b>FASAB</b>	....Federal Accounting Standards Advisory Board
<b>FECA</b>	.....Federal Employees Compensation Act
<b>FERS</b>	.....Federal Employees Retirement System
<b>FFMIA</b>	.....Federal Financial Management Improvement Act of 1996
<b>FFRDC</b>	....Federally Funded Research and Development Centers
<b>FMFIA</b>	.....Federal Managers' Financial Integrity Act of 1982
<b>FY</b>	.....Fiscal Year
<b>GAO</b>	.....General Accounting Office
<b>GEO</b>	.....Directorate for Geosciences
<b>GPRA</b>	.....Government Performance and Results Act of 1993
<b>GSA</b>	.....General Services Administration
<b>HHS</b>	.....U.S. Department of Health and Human Services
<b>IG</b>	.....Inspector General
<b>IGETS</b>	.....Intra-Governmental Elimination Transaction Systems
<b>IGOTS</b>	.....Intra-Governmental Transfers System
<b>IPA</b>	.....Intergovernmental Personnel Act
<b>IPAY</b>	.....Integrated Payroll System
<b>IT</b>	.....Information Technology
<b>K-12</b>	.....Kindergarten through Grade 12
<b>MCC</b>	.....Management Controls Committee
<b>MPS</b>	.....Directorate for Mathematical and Physical Sciences
<b>MRE</b>	.....Major Research Equipment
<b>NASA</b>	.....National Aeronautics and Space Administration
<b>NSB</b>	.....National Science Board
<b>NSF</b>	.....National Science Foundation
<b>OIRM</b>	.....Office of Information and Resource Management
<b>OMB</b>	.....Office of Management and Budget
<b>OPAC</b>	.....On-line Payment and Collection
<b>OPM</b>	.....Office of Personnel Management
<b>PAT</b>	.....Program Announcement Template
<b>PFI</b>	.....Partnerships for Innovation
<b>PI</b>	.....Principal Investigators
<b>PIMS</b>	.....Program Information Management System
<b>P.L.</b>	.....Public Law
<b>PP&amp;E</b>	.....Property, Plant, and Equipment
<b>PwC</b>	.....PricewaterhouseCoopers LLP
<b>R&amp;RA</b>	.....Research and Related Activities
<b>SBE</b>	.....Directorate for Social, Behavioral and Economic Sciences
<b>S&amp;E</b>	.....Salaries and Expenses
<b>SMET</b>	.....Science, Mathematics, Engineering and Technology
<b>SRS</b>	.....Science Resource Studies
<b>USAP</b>	.....United States Antarctic Program
<b>VSEE</b>	.....Visiting Scientists, Engineers, and Educators
<b>Y2K</b>	.....Year 2000



## We Welcome Your Comments!

Thank you for your interest in the National Science Foundation's FY 2000 Accountability Report. We welcome your comments on how we can make this report a more informative document for our readers. Please send your comments to:

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NSF-01-83

Design: Low + Associates Inc.



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