

Right: Researchers have discovered an entirely unexpected ecosystem in the lightless depths just off the coast of the Antarctic Peninsula. When the Larsen Ice Shelf collapsed there in 2002, it suddenly revealed the seabed beneath, giving NSF-supported scientists a chance to survey the contents. They found marine life forms, such as thick bacterial mats, that were able to subsist without sunlight—which had been blocked by the ice above—and therefore without photosynthesis.

Such communities, called “chemotrophic” because their members obtain energy from oxidation of chemical compounds rather than deriving it from sunshine, had previously been seen only at warm volcanic locations and hydrothermal vent areas on the sea floor. Eugene Domack of Hamilton College and colleagues described their findings in publications during 2005. The scientists speculate that the bacteria may feed on seepage of methane gas from the seabed. The research also serves to further understanding of how ice shelves collapse and provides insight into potential sea level change associated with global warming.

For more information:

www.nsf.gov/od/opp/gpra/cov_materials/cov2006/ant_nuggets_06.pdf



FINANCIAL HIGHLIGHTS

“Sound stewardship and innovative financial management enable the National Science Foundation to pursue the critical investments in science and engineering research and education that strengthen the nation’s security, prosperity, and well being.”

Thomas N. Cooley

For more information:

NSF Budget Requests
www.nsf.gov/about/budget/



Thomas N. Cooley
Chief Financial Officer

From the Chief Financial Officer

I am pleased to report NSF received a clean audit opinion in FY 2006, maintaining our record of excellence in financial management. This is a testament to our outstanding staff. A firm working with NSF for the first time, Clifton Gunderson LLP, performed an independent audit and issued NSF's ninth consecutive unqualified audit opinion. The audit report repeated two prior year reportable conditions: post-award monitoring and contract monitoring. Over the past year, significant progress has been made in both, and we will enhance our efforts to complete the activities highlighted in their respective corrective action plans.

NSF's longstanding commitment to organizational excellence and sound financial management practices continues to serve us well. Notable achievements of the past year include:

- Maintaining "Green" ratings for both the Financial Performance and the Budget and Performance Integration initiatives on the President's Management Agenda scorecard. NSF has successfully sustained a "Green" rating for Financial Performance for 18 consecutive quarters.
- Moving from an annual to a three-year reporting cycle for improper payments with OMB approval, as a result of the low improper payment rates reported in our *FY 2004* and *FY 2005 Performance and Accountability Reports*.
- Recovering \$3.19 million in excess cash held by grant recipients, and reducing erroneous program income reporting by grantees from \$3.99 million to \$0.77 million through the post-award monitoring efforts.
- Providing flat rate travel reimbursements through our new Guest Travel System to our numerous merit review panelists in 16 days, on average.
- Receiving a League of American Communications Professionals Honors Award for our *FY 2005 Performance Highlights* report. NSF is proud to be the only federal agency to be honored for five consecutive years of distinction in its annual reports—a recognition that reflects the agency's continuing commitment to be accountable to our stakeholders and the public for sound stewardship of the public's resources.

Excellence in financial management enables NSF to pursue critical investments in science and engineering research and education that ultimately help ensure the nation's security, prosperity, and well being. NSF's commitment to managing programs in an informed and fiscally responsible manner, to ensuring resources are used efficiently and effectively, and to accountability and transparency reflect the dedication and diligence of a premier staff. I am proud of their accomplishments.

A handwritten signature in black ink that reads "Thomas N. Cooley". The signature is fluid and cursive.

Thomas N. Cooley
December 2006

NANOJAPAN



As part of the Rice University NanoJapan Program, a group of sixteen freshman and sophomore engineering majors is spending the summer conducting nanotechnology research in the best laboratories in Japan. By involving students in cutting-edge research projects early in their studies, NanoJapan aims to increase the number of U.S. students who choose to pursue graduate study in a nanotech-related field, while also cultivating a globally aware science and engineering workforce. The United States and Japan account for 57 percent of worldwide nanotechnology R&D spending, with Japan leading the way. U.S. leadership in frontier nanoscale science will require young American scientists and engineers to network with their Japanese peers. Students spend ten weeks in Japan participating in intensive Japanese language and intercultural skills training and hands-on research at a prestigious Japanese university or corporate or national laboratory. Students then build on their overseas experience with research presentations at a special one-week technology symposium in Texas. The NanoJapan Program is part of an innovative Partnership for International Research and Education award to Rice University. Eighty students will participate in the NanoJapan Program in 2006–2010.

For more information:

<http://nanojapan.rice.edu/>

Financial Highlights

NSF's commitment to excellence, results-oriented management, and stewardship encompasses the agency's financial management arena. NSF's goal of excellence in financial management focuses on providing the highest quality business services to our customers, stakeholders, and staff through effective financial control, prompt and streamlined work processes, and reliable and timely financial information to support sound management decisions. The result has been a long-standing agency record of achievement in federal financial management.

NSF successfully maintained "green" ratings in both the President's Management Agenda and the Department of the Treasury's Financial Management scorecards in FY 2006. In addition, NSF achieved top scores in government-wide Chief Financial Officers Council's financial management metrics. Moreover, after reporting low improper payment rates in FY 2004 and FY 2005, NSF has now moved from a one- to a three-year improper payments reporting cycle with OMB approval.

NSF's Financial Accounting System is an online, real time system that provides the full spectrum of financial transaction functionality required by a grant-making agency. The system allows NSF to consistently meet financial reporting deadlines, helps ensure compliance with the Federal Financial Management Improvement Act and OMB A-127 (financial management systems), and provides accurate, on-demand financial information to NSF staff. NSF's three primary data systems—the Financial Accounting System, the Enterprise Information System, and Report Web—provide comprehensive financial, budgetary, merit review, and awards management data to NSF decision makers.

NSF continued to build on its record as a leader in government business practices, particularly in electronic business and grants management. Because NSF has a highly integrated financial and grants management process that has the flexibility to provide services to other agencies, OMB selected NSF to be a shared service provider within the Grants Management Line of Business, in a fee-for-service environment to other federal research agencies. Potential service offerings include grant payments and grantee financial reporting.

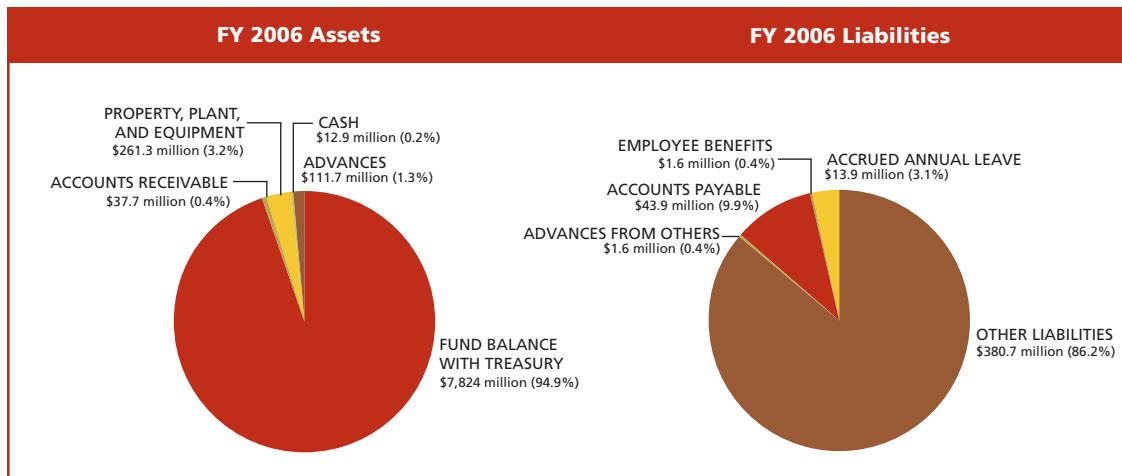
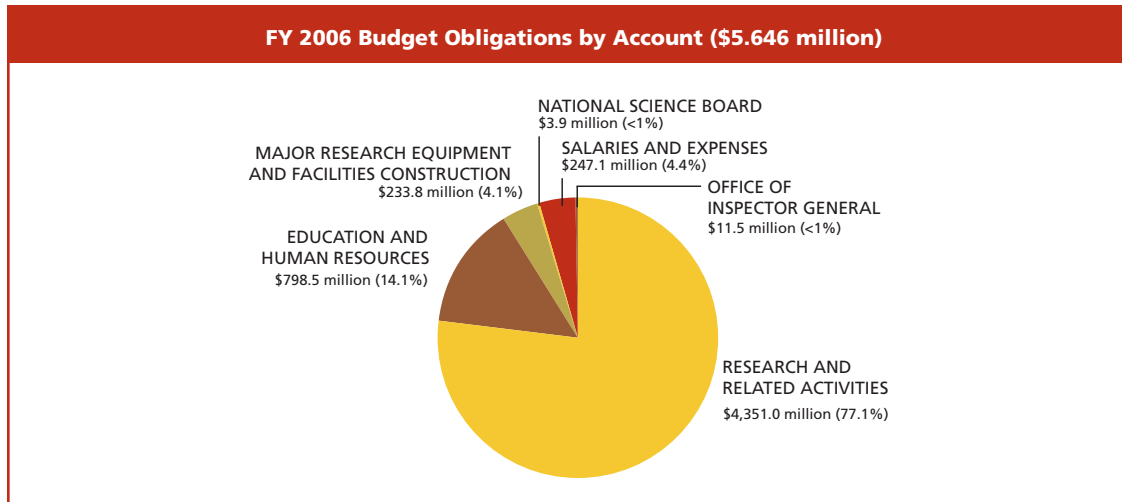
In FY 2006, updated OMB guidance on internal control (OMB Circular A-123) required most federal agencies, including NSF, to undertake a significant effort to implement a more rigorous and extensive internal control review process. The process of institutionalizing the updated internal review process does not depend solely on the annual internal control review and test results; it also depends on achieving an overall level of confidence and experience over time. Therefore, in FY 2006 NSF opted for a limited scope of testing internal controls over financial reporting for fiscal years 2006, 2007, and 2008, to allow the agency time to build a level of confidence into the review process.

NSF prepares annual financial statements in conformity with generally accepted accounting principles of the United States and subjects them to an independent audit to ensure their reliability in assessing performance. In FY 2006, NSF received its ninth unqualified "clean" audit opinion. An unqualified audit opinion is a measure of the fair presentation of our financial statements. The Foundation prepares a Balance Sheet, Statement of Net Cost, Statement of Changes in Net Position, Statement of Budgetary Resources, and Statement of Financing. Supplementary statements prepared include Budgetary Resources by Major Budgetary Accounts, Deferred Maintenance, and Stewardship Investments. The following pages feature highlights of NSF's FY 2006 financial condition. The statement on Stewardship Investments is shown on page 21. A more detailed discussion of NSF's financial performance and a complete set of financial statements, accompanying notes, and the audit opinion can be found in NSF's *FY 2006 Performance and Accountability Report*.

NSF is funded primarily through six congressional appropriations that totaled \$5.6 billion in FY 2006, as shown on the chart on the following page. NSF appropriations funded four strategic outcome goals: Ideas, Tools, People, and Organizational Excellence. Organizational



Excellence focuses on the administrative and management activities that enable NSF to achieve its programmatic activities and mission. Funding for Organizational Excellence has been allocated among Ideas, Tools, and People to capture the (net) cost of each of these outcome goals, shown on the statement on page 20.



FY 2006 Assets and Liabilities

The three line items consisting of *Fund Balance with Treasury*; *Property, Plant, and Equipment*; and *Advances* represent 99 percent of NSF's current year assets. *Fund Balance with Treasury* is funding available through the Department of the Treasury accounts from which NSF is authorized to make expenditures and pay amounts due. *Property, Plant, and Equipment* comprises capitalized property located at NSF headquarters and NSF-owned property in New Zealand and Antarctica that support the U.S. Antarctic Program. *Advances* are funds advanced to NSF grantees, contractors, and other government agencies.

The three line items *Accounts Payable*, *Accrued Liabilities (Other Liabilities)*, and *Accrued Annual Leave* represent 99 percent of NSF's current year liabilities. *Accounts Payable* includes liabilities to NSF vendors for unpaid goods and services received. *Accrued Liabilities* are amounts recorded for NSF's grants and contracts for which work has been completed and payment has not been made, as well as accrued payroll and benefits. *Accrued Annual Leave* represents annual leave earned by NSF employees but not yet taken.

NSF's Net Position increased to \$7.8 billion in FY 2006, a one percent increase due to the increase in *Unexpended Appropriations and Cumulative Results of Operations*. *Unexpended Appropriations* is affected mainly by *Appropriations Received* and *Appropriations Used*, with minor impact from *Appropriation Transfers* from the U.S. Agency for International Development (USAID) and from *Other Adjustments*, which includes appropriation rescissions and cancellations.

EARTHQUAKE PROTECTION



By applying innovative, intelligent design strategies, structural engineers at the University of California, San Diego (UCSD), have successfully shown that new light-weight construction techniques are as earthquake resistant as bulkier, more expensive methods. By erecting a seven-story test building on a giant outdoor shake table—which is part of the NSF-supported Network for Earthquake Engineering Simulation (NEES)—the engineers duplicated the force of California's devastating 1994 Northridge earthquake. Data from this test confirmed that novel designs and carefully placed reinforcements are just as effective at withstanding earthquake damage as the heavily reinforced, "hardened" buildings required by California building codes. Full-scale tests of such large buildings have previously not been possible because of weight, space, and technical limitations of smaller indoor shake tables. The NEES shake table at UCSD can actually support a building roughly 10 times heavier than the one tested in this study. The picture above shows NEES investigators at the UCSD seven-story test model.

• For more information:
www.nees.org/

Information about *Net Cost* is taken from NSF's Statement of Net Cost for Years Ended September 30, 2006 and 2005. Information about *Stewardship Investments* is taken from NSF's FY 2006 Stewardship Investments statement. Both can be found in the financial statements of NSF's *FY 2006 Performance and Accountability Report*.

Changes in Financial Position in FY 2006 (amounts in thousands)

Net Financial Condition	FY 2006	FY 2005	Increase/ Decrease	% Change
Assets	\$8,247,611	\$8,075,059	\$172,552	2%
Liabilities	\$441,720	\$377,543	\$64,177	17%
Net Position	\$7,805,891	\$7,697,516	\$108,375	1%
Net Cost	\$5,595,761	\$5,408,174	\$187,587	3%

FY 2006 Net Cost of Investment Categories (amounts in thousands)

Ideas

Fundamental Science & Engineering Centers	\$	2,333,848
Capability Enhancement		182,486
		214,013
Total Ideas Program Costs		<u>2,730,347</u>
Less: Earned Revenue		(78,944)
Net Ideas Program Costs		<u>2,651,403</u>

Tools

Large Facilities	\$	535,284
Infrastructure and Instrumentation		418,095
Polar Tools, Facilities, and Logistics		361,910
Federally Funded Research & Development Centers		227,158
Total Tools Program Costs		<u>1,542,447</u>
Less: Earned Revenue		(31,954)
Net Tools Program Costs		<u>1,510,493</u>

People

Individuals	\$	863,438
Institutions		158,259
Collaborations		427,089
Total People Program Costs		<u>1,448,786</u>
Less: Earned Revenue		(14,921)
Net People Program Costs		<u>1,433,865</u>

Net Cost of Operations \$ **5,595,761**



Stewardship Investments: Research and Human Capital
(amounts in thousands) (unaudited)

	2006	2005	2004	2003	2002
RESEARCH AND HUMAN CAPITAL ACTIVITIES					
Basic Research	\$ 3,682,266	\$ 3,564,093	\$ 3,494,302	\$ 3,519,159	\$ 3,092,060
Applied Research	339,757	291,169	209,225	218,152	193,788
Education and Training	1,378,472	1,386,952	1,224,058	867,489	767,734
Non-Investing Activities	321,085	292,426	268,298	196,363	183,887
Total Research & Human Capital Activities	\$ 5,721,580	\$ 5,534,640	\$ 5,195,883	\$ 4,801,163	\$ 4,237,469
INPUTS, OUTPUTS AND/OR OUTCOMES					
Research and Human Capital Activities					
<i>Investments in</i>					
Universities	\$ 3,994,682	\$ 3,970,851	\$ 3,705,751	\$ 3,310,365	\$ 2,919,897
Industry	199,523	223,563	196,260	178,000	185,062
Federal Agencies	221,002	143,316	107,212	144,792	106,458
Small Business	218,334	193,199	200,995	186,400	144,844
Federally Funded R&D Centers	1,088,039	1,003,711	985,665	981,606	881,208
	\$ 5,721,580	\$ 5,534,640	\$ 5,195,883	\$ 4,801,163	\$ 4,237,469
<i>Support to</i>					
Scientists	\$ 473,457	\$ 454,053	\$ 477,970	\$ 427,304	\$ 394,144
Postdoctoral Programs	158,528	162,132	175,680	163,239	148,334
Graduate Students	544,513	538,233	546,084	475,315	402,620
	\$ 1,176,498	\$ 1,154,418	\$ 1,199,734	\$ 1,065,858	\$ 945,098
Outputs & Outcomes					
<i>Number of</i>					
Awards Actions	22,000	22,000	23,000	23,000	21,000
Senior Researchers	32,000	32,000	31,000	30,000	28,000
Other Professionals	11,000	12,000	15,000	12,000	11,000
Postdoctoral Associates	5,000	6,000	6,000	6,000	6,000
Graduate Students	26,000	27,000	29,000	27,000	26,000
Undergraduate Students	27,000	33,000	35,000	32,000	32,000
K-12 Students	8,000	11,000	14,000	14,000	11,000
K-12 Teachers	59,000	74,000	86,000	85,000	84,000

NSF's mission is to support basic scientific research and research fundamental to the engineering process as well as science and engineering education programs. Toward this end, NSF's Stewardship Investments fall principally into the categories of Research and Human Capital. In Research, most NSF funding is devoted to basic research, with a relatively small share going to applied research. This funding supports both the conduct of research and the necessary supporting infrastructure, including state-of-the-art instrumentation, equipment, computing resources, and multi-user facilities such as digital libraries, observatories, and research vessels and aircraft. Basic and applied research costs are determined by prorating the program costs of *Tools* and *Ideas* reported on the *Statement of Net Cost*. The proration uses the basic and applied research percentages of total estimated research and development obligations reported in the current year Budget Request to OMB. The actual numbers are not available until later in the following fiscal year. Education and Training costs equate to *People* costs and Non-Investing Activities reflect *Organizational Excellence* costs.

The data provided for Scientists, Postdoctoral Associates, and Graduate Students are obtained from NSF's proposal system and is information reported by each Principal Investigator. The number of award actions are actual values from NSF's Enterprise Information System (EIS). The remaining outputs and outcomes are estimates obtained annually from the NSF Directorates. They are reported in the annual Budget Request to OMB.

NSF's Human Capital investments focus principally on education and training, toward a goal of creating a diverse, internationally competitive and globally engaged workforce of scientists, engineers, and well-prepared citizens. NSF supports activities to improve formal and informal science, mathematics, engineering, and technology education at all levels, as well as public science literacy projects that engage people of all ages in life-long learning. The decrease in the number of people involved in NSF activities in FY 2006 reflects decreased funding for programmatic activities related to science and engineering education.