

the costs involved. In order to assure proper funding levels for the Shuttle program, extraordinary flexibility for transfers was allowed by the Committee. Now that the Shuttle program has returned to regular funding patterns, the need for comprehensive transfer authority no longer exists. NASA shall abide by the guidelines provided in section 505 of this Act for future requests to reprogram funds.

The Committee is concerned that NASA has not utilized independent cost verification early in the process of estimating costs for its programs and missions or in assessing the appropriate funding levels of sole-source contracts. By not using this tool, NASA cannot be certain that potential contract costs are accurately represented. In allocating resources for current and future needs, effective cost estimation is crucial. NASA is directed to incorporate independent cost verification as part of the process by which contracts are selected. These shall be used as a guide for assessing when costs have exceeded expectations and to help identify projects for termination.

Finally, NASA shall notify the Committee 15 days prior to allocating funds, modifying, or extending existing contracts that are in excess of 15 percent of the original contract value. Within this notification, the contractor, with the concurrence of NASA, shall justify the additional expenditure of funds, and NASA shall identify the source of any additional funds. It is critical that NASA be able to control costs for its activities. The Committee will not look favorably upon the use of contractors that repeatedly have cost overruns unless these cost overruns have been justified.

NATIONAL SCIENCE FOUNDATION

Appropriations, 2005 .....	\$5,472,824,000
Budget estimate, 2006 .....	5,605,000,000
House allowance .....	5,643,370,000
Committee recommendation .....	5,530,959,000

The Committee recommends an appropriation of \$5,530,959,000. The recommendation is \$58,135,000 above the fiscal year 2005 funding level and \$74,041,000 below the budget request.

The National Science Foundation was established as an independent agency by the National Science Foundation Act of 1950 (Public Law 81-507) and is authorized to support research and education programs that promote the progress of science and engineering in the United States. The Foundation supports research and education in all major scientific and engineering disciplines through grants, cooperative agreements, contracts, and other forms of assistance awarded to more than 2,000 colleges and universities, nonprofit organizations, small businesses, and other organizations in all parts of the United States. The Foundation also supports unique, large-scale research facilities and international facilities.

The Committee notes that productivity growth, powered by new knowledge and technological innovation, makes the economic benefits of a comprehensive, fundamental research and education enterprise abundantly clear. New products, processes, entire new industries, and the employment opportunities that result depend upon rapid advances in research and their equally rapid movement into the marketplace. In today's global economy, continued progress in

science and engineering and the transfer of the knowledge developed is vital if the United States is to maintain its competitiveness. NSF is at the leading edge of the research and discoveries that will create the jobs and technologies of the future.

The Committee reiterates its long-standing requirement that NSF request reprogrammings when initiating new programs or activities or reorganizing components. The Committee directs the Foundation to notify the chairman and ranking minority member prior to each reprogramming of funds in excess of \$250,000 between programs, activities, or elements. The Committee expects to be notified of reprogramming actions which involve less than the above-mentioned amount if such actions would have the effect of changing the agency's funding requirements in future years, or if programs or projects specifically cited in the Committee's reports are affected.

To the greatest extent possible, the funding provided to NSF for activities for fiscal year 2006 is not to exceed the requested level except where otherwise recommended by the Committee.

#### RESEARCH AND RELATED ACTIVITIES

Appropriations, 2005 .....	\$4,220,556,000
Budget estimate, 2006 .....	4,333,500,000
House allowance .....	4,310,000,000
Committee recommendation .....	4,345,213,000

The Committee recommends an appropriation of \$4,345,213,000. The recommendation is \$124,657,000 above the fiscal year 2005 funding level and \$11,713,000 above the budget request.

The Research and Related Activities appropriation addresses the Foundation's three strategic goals: people—developing a diverse, internationally competitive and globally-engaged workforce of scientists, engineers, and well-prepared citizens; ideas—enabling discovery across the frontiers of science and engineering, connected to learning, innovation, and service to society; and tools—providing broadly accessible, state-of-the-art science and engineering facilities and shared research and education tools. Research activities will contribute to the achievement of these outcomes through expansion of the knowledge base; integration of research and education; stimulation of knowledge transfer among academia and public and private sectors; and international activities, and will bring the perspectives of many disciplines to bear on complex problems important to the Nation. The Foundation's discipline-oriented Research and Related Activities Account include: Biological Sciences; Computer and Information Science and Engineering; Engineering; Geosciences; Mathematical and Physical Sciences; Social, Behavioral and Economic Sciences; U.S. Polar Research Programs; U.S. Antarctica Logistical Support Activities; and Integrative Activities.

To improve planning and priority-setting for the Foundation and improve the Committee's efforts to understand NSF's long-term budgeting needs, the Committee directs NSF to continue to provide multi-year budgets for all of its multi-disciplinary activities. The Committee is concerned that NSF has taken on more significant initiatives that often require multi-year funding to meet research goals. NSF shall continue to provide the Committee with documentation that identifies these types of initiatives. Accordingly, the

Committee directs NSF to continue to include the funding requirements of all major multi-disciplinary and mid-level activities in future budget requests.

The Committee has provided the budget request of \$386,930,000 for polar research activities. Within this amount, no more than the base funding in the budget submission, as well as an additional \$48,000,000 for ice breaking, as requested by the administration, is provided for icebreaking activities. The Committee has included bill language clarifying that the Director of NSF shall procure polar ice breaking services from the Coast Guard. However, if the Coast Guard is unable to provide ice breaking services, NSF shall procure such services from alternative sources. The Committee expects the Director of NSF, the Commandant of the Coast Guard, the Director of the Office of Management and Budget, and the Director of the Office of Science and Technology Policy to work jointly to ensure that the Coast Guard ice breaking fleet is capable of meeting NSF's future polar ice breaking needs.

The Committee recommends \$100,000,000 for the Plant Genome Research Program. The Committee remains a strong supporter of this important program due to its potential impact on improving economically significant crops. The Committee also recognizes its vast potential in combating hunger in poor countries. Accordingly, the Committee directs the NSF to accelerate funding for this program as authorized under Section 8(3)(c) of the National Science Foundation Authorization Act of 2002 (Public Law 107-368).

NSF has been the lead agency for the National Nanotechnology Initiative, and will continue to contribute to this emerging technology. The Committee recommends the full funding level requested for nanotechnology. This level of funding will allow the Foundation to continue to be the leader for this initiative. NSF is encouraged to make sure that public misconceptions of this field are minimized.

The Committee is concerned that NSF continues to underfund operations for radio astronomy. The operations, maintenance, and development of new instrumentation at the Very Large Array, the Very Long Baseline Array, and the Green Bank Telescope allows these world-class facilities to provide valuable research into the origins of the universe. The Committee recommends \$51,400,000 for the operations of the National Radio Astronomy Observatories.

The Office of International Science and Engineering [OISE] has worked to ensure that U.S. researchers are involved with leading research across the globe. As research becomes more collaborative—with partnerships reaching across nations, the work of this office—identifying research opportunities around the globe—will grow. The Committee supports the fiscal year 2006 funding request for OISE in order to keep U.S. research at the forefront of global science.

The Committee notes that NSF is investing in a multi-year priority area of research in Human and Social Dynamics and recommends \$39,450,000 for this purpose.

## MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

Appropriations, 2005 .....	\$173,650,000
Budget estimate, 2006 .....	250,000,000
House allowance .....	193,350,000
Committee recommendation .....	193,350,000

The Committee recommends an appropriation of \$193,350,000. The recommendation is \$19,700,000 above the fiscal year 2005 funding level and \$56,650,000 below the budget request.

The major research equipment and facilities construction appropriation supports the acquisition, procurement, construction, and commissioning of unique national research platforms and facilities as well as major research equipment. Projects supported by this appropriation will push the boundaries of technology and offer significant expansion of opportunities, often in new directions, for the science and engineering community. Preliminary design and development activities, on-going operations, and maintenance costs of the facilities are provided through the research and related activities appropriation account.

The Committee recommends \$49,240,000 for the Atacama Large Millimeter Array [ALMA], \$50,620,000 for EarthScope, \$33,400,000 for the IceCube Neutrino Observatory, and \$57,920,000 for the Scientific Ocean Drilling Vessel.

The Committee has chosen not to fund the Rare Symmetry Violating Processes [RSVP] project. Recent developments have caused unacceptable increases in the program. NSF is directed to apply the \$14,880,000 in remaining fiscal year 2005 funds to the projects funded in fiscal year 2006, which will bring total funding for projects in this account to \$208,230,000. This will allow for full funding of the four projects receiving funds in fiscal year 2006 from the Major Research Equipment and Facilities Construction [MREFC] account.

If the Foundation chooses to alter or descope the RSVP proposal which the National Science Board has already approved, the new project shall begin the process for inclusion as an MREFC project again at the directorate level within the Research and Related Activities account.

## EDUCATION AND HUMAN RESOURCES

Appropriations, 2005 .....	\$841,421,000
Budget estimate, 2006 .....	737,000,000
House allowance .....	807,000,000
Committee recommendation .....	747,000,000

The Committee recommends an appropriation of \$747,000,000. The recommendation is \$94,421,000 below the fiscal year 2005 funding level and \$10,000,000 above the budget request.

The education and human resources appropriation supports a comprehensive set of programs across all levels of education in science, technology, engineering and mathematics [STEM]. The appropriation supports activities that unite school districts with institutions of higher learning to improve precollege education. Other precollege activities include the development of the next generation of precollege STEM education leaders; instructional materials; and the STEM instructional workforce. Undergraduate activities support curriculum, laboratory, and instructional improvement; ex-

pand the STEM talent pool; attract STEM participants to teaching; augment advanced technological education at 2-year colleges; and develop dissemination tools. Graduate support is directed to research and teaching fellowships and traineeships and instructional workforce improvement by linking precollege systems with higher education. Programs also seek to broaden the participation of groups underrepresented in the STEM enterprise, build State and regional capacity to compete successfully for research funding, and promote informal science education. Ongoing evaluation efforts and research on learning strengthen the base for these programs.

The Committee strongly encourages NSF to continue support for undergraduate science and engineering education. At a time when enrollment in STEM fields of study continues to decline, it is important that NSF use its position to support students working towards degrees in these areas.

NSF plays a significant role in attracting more of the best and brightest students in the Nation into the science, mathematics, engineering, and technology fields. The Committee urges NSF to work towards increasing the number of women, minorities, and other underrepresented groups to the greatest extent possible.

To address the importance of broadening science and technology participation to minorities, the Committee recommendation includes the amounts in the budget request for the Historically Black Colleges and Universities—Undergraduate Program [HBCU-UP], the Louis Stokes Alliance for Minority Participation program and the HBCU-Research University Science & Technology [THRUST] initiative within the Centers of Research Excellence in Science and Technology [CREST] program. The Committee also supports the budget request for the Tribal Colleges and Universities program. In past years, these programs had been routinely cut, however, NSF has chosen to keep funding these programs near prior year funding levels. The Committee is supportive of this decision and anticipates that further attempts to cut these programs will not occur.

The Committee has included \$100,000,000 for the Experimental Program to Stimulate Competitive Research [EPSCoR], of which at least \$65,000,000 shall be used for the Research Infrastructure Improvement [RII] component supporting research areas aligned with statewide EPSCoR science and technology priorities.

Finally, the Committee rejects the administration's continued request to have the Math and Science Partnership [MSP] program only exist at the Department of Education. Current activities initiated by MSP are only beginning to provide measurable results and have yet to be ready for implementation on a nationwide basis. The MSP program is an important asset in providing improved math and science education by partnering local school districts with faculty of colleges and universities. For this purpose an increase of \$4,000,000 above the budget request is provided to the MSP program to be used to fund activities that are not being addressed by the companion program at the Department of Education.

SALARIES AND EXPENSES

Appropriations, 2005 .....	\$223,200,000
Budget estimate, 2006 .....	269,000,000
House allowance .....	250,000,000
Committee recommendation .....	229,896,000

The Committee recommends an appropriation of \$229,896,000. The recommendation is \$6,696,000 above the fiscal year 2005 funding level and \$39,104,000 below the budget request.

The salaries and expenses appropriation provides funds for staff salaries, benefits, travel, training, rent, advisory and assistance services, communications and utilities expenses, supplies, equipment, and other operating expenses necessary for management of the National Science Foundation's [NSF] research and education activities.

The Committee remains concerned about the Foundation's management and oversight of its large research facilities. The Committee is especially troubled by the lack of staffing resources provided to the Office of the Deputy Director of Large Facility Projects and, accordingly, the Committee directs the Foundation to provide the staffing support necessary for the Deputy Director of no fewer than three FTE's to perform this job effectively. The Committee directs the Foundation to detail in its fiscal year 2006 operating plan the steps taken to provide additional resources for this office.

OFFICE OF THE NATIONAL SCIENCE BOARD

Appropriations, 2005 .....	\$3,968,000
Budget estimate, 2006 .....	4,000,000
House allowance .....	4,000,000
Committee recommendation .....	4,000,000

The Committee recommends an appropriation of \$4,000,000. The recommendation is \$32,000 above the fiscal year 2005 funding level and identical to the budget request.

The National Science Board is the governing body of the National Science Foundation. The Board is composed of 24 members, appointed by the President and confirmed by the Senate. The Board is also charged with serving as an independent adviser to the President and Congress on policy matters related to science and engineering research and education. By law, the Board establishes the policies of the National Science Foundation, provides oversight of its programs and activities, and approves of its strategic directions and budgets. The Board reviews and approves NSF awards at levels above its delegation of authority to the NSF Director.

Given the increasing oversight responsibilities of the Board, driven by the growth of the Foundation, the Committee wants to ensure the Board continues to carryout effectively its policy-making and oversight responsibilities. The Committee is providing funding to support the operations, activities, training, expenses, and staffing of the Board.

OFFICE OF INSPECTOR GENERAL

Appropriations, 2005 .....	\$10,029,000
Budget estimate, 2006 .....	11,500,000
House allowance .....	11,500,000
Committee recommendation .....	11,500,000

The Committee recommends an appropriation of \$11,500,000. The recommendation is \$1,471,000 above the fiscal year 2005 funding level and identical to the budget request.

The Office of Inspector General appropriation provides audit and investigation functions to identify and correct deficiencies that could create potential instances of fraud, waste, or mismanagement.

The funds provided will allow the OIG to further its efforts in several priority areas that pose the greatest risk to the agency: financial management, acquisition, information technology, human capital, award administration, awardee financial accountability and compliance, and the management of agency programs and projects.

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Appropriations, 2005 .....	\$6,328,000
Budget estimate, 2006 .....	5,564,000
House allowance .....	5,564,000
Committee recommendation .....	5,564,000

The Committee recommends an appropriation of \$5,564,000. The recommendation is \$764,000 below the fiscal year 2005 funding level and identical to the budget request.

The Office of Science and Technology Policy [OSTP] was created by the National Science and Technology Policy, Organization, and Priorities Act of 1976 (Public Law 94–282) and coordinates science and technology policy for the White House. OSTP provides authoritative scientific and technological information, analysis, and advice for the President, for the executive branch, and for Congress; participates in formulation, coordination, and implementation of national and international policies and programs that involve science and technology; maintains and promotes the health and vitality of the U.S. science and technology infrastructure; reviews and analyzes, with the Office of Management and Budget, the research and development budgets for all Federal agencies; and coordinates research and development efforts of the Federal Government to maximize the return on the public’s investment in science and technology and to ensure Federal resources are used efficiently and appropriately.

The President’s Science Advisor should continue to play an integral role in advising the President on the appropriate balance among and between disciplines and agencies in the Federal R&D portfolio. The Committee also expects the Science Advisor will conduct effective outreach to the science and engineering community and be an active and influential advisor to the President on important public policy issues grounded in science and technology.

The Committee notes that the Government share for R&D funding has declined substantially over the last 15 years. However, industry’s dependence on public R&D for innovation remains very high. Nearly three-quarters of U.S. industry patents cite publicly-funded science as the basis for the invention. The Committee is concerned that further reductions in public funding for science and engineering could result in a decrease in the private sector’s capacity to innovate.