

**National Science Foundation FY 2007 Request**  
**Summary of Major Changes by Account**

(Dollars in Millions)

<b>NSF FY 2006 Current Plan</b>	<b>\$5,581</b>
<b>Research and Related Activities</b>	
Biological Sciences	<b>+31</b>
Increases funding for research with emphases on enhancements for biological databases and informatics, continued planning for the National Ecological Observatory Network, broadening participation activities, Frontiers in Biological Research support on complex, multidimensional biology, and an increased number of awards.	
Computer and Information Science and Engineering	<b>+30</b>
Support for cybersecurity research and education increases substantially. Support is provided for the Center for Embedded Networked Sensing and the Center for Ubiquitous Secure Technology. Funding is also provided for the design and pre-construction development of the Global Environment for Network Innovations (GENI), which would allow for experimental research on a “clean-slate” reinvention of the internet that builds in security and robustness and that creates new applications capabilities.	
Engineering	<b>+48</b>
Increases funding for added support of disciplinary and interdisciplinary research projects; strengthens investment in Industry and University Cooperative Research Centers; and provides new funding for Emerging Frontiers in Engineering Research and Education. Within the increase is \$20.0 million to support sensor research that is relevant to the detection of explosive devices and related threats.	
Geosciences	<b>+42</b>
Increases funding for preparation of the Ocean Observatories Initiative, supports two Science and Technology Centers initiated in FY 2006 -- the Center for Atmospheric Process Modeling and the Center for Coastal Margin Observation / Prediction. Increased funding will enable 65 new research grants while maintaining award size and duration of existing grants. Support for cyberinfrastructure initiatives increases.	
Mathematical and Physical Sciences	<b>+65</b>
Emphasis is on strengthening investments across the MPS portfolio. Themes to be emphasized include: Physics of the Universe, Fundamental Mathematical and Statistical Science, Physical Sciences at the Nanoscale, Cyberinfrastructure and the Cyberscience it Enables, and the Molecular Basis of Life Processes. Includes a \$15 million investment to reinforce NSF support for university-based research in elementary particle physics.	

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Social, Behavioral and Economic Sciences		<b>+14</b>
	Increases funding for Science Metrics and maintains or increases support for core research such as the Innovation and Organizational Change program and for the Human and Social Dynamics priority area. Added funding for core programs will allow a greater number of proposals to be supported and funding rates to increase.	
Office of Cyberinfrastructure		<b>+55</b>
	Initiates the four-year acquisition, at \$50 million per year, of a leadership-class high performance computing (HPC) system, complementing ongoing investments in mid-range HPC platforms. Funding is also increased to support the development and provision of production-quality software services focused on strategic data- and collaboration-intensive functionalities.	
Office of International Science and Engineering		<b>+6</b>
	Funding is increased for OISE's Partnerships for International Research and Education program and for the International Research Experiences for Students program. These increases are offset partly by reduced support for workshops, planning visits, and co-funding with other NSF directorates and offices.	
Office of Polar Programs		<b>+49</b>
	Support increases for research, especially for International Polar Year (IPY) activities focusing on Study of Environmental Arctic Change (SEARCH), Polar Ice Sheet Dynamics and Stability, and Life in the Cold and Dark. Provides support for a new Science and Technology Center -- the Center for the Remote Sensing of Ice Sheets. Support for facilities and infrastructure increases, principally to support IPY activities and to explore Antarctic resupply options. Funding for polar icebreaking declines slightly.	
Integrative Activities		<b>-6</b>
	Decreased funding reflects the transfer of \$11.84 million in start-up funding for four Science and Technology Centers to the managing directorates (BIO-1), (GEO-2), and (MPS-1); provides additional support to existing Science of Learning Centers; and increases funding for the Partnerships for Innovation program, and for the acquisition of research instrumentation.	
Arctic Research Commission		<b>0</b>
	Increased support of \$280,000 reflects funding for one additional FTE, bringing the total FTE to four, and for increased administrative costs.	
<b>Subtotal, R&amp;RA</b>		<b>+334</b>

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<b>Education and Human Resources</b>	<b>+20</b>
<p>Funding for the new Discovery Research K-12 program increases significantly from the FY 2006 Current Plan, as does support for EHR's broadening participation portfolio. Support for the Graduate Teaching Fellows in K-12 Education program, the Integrative Graduate Education and Research Traineeships program and the Graduate Research Fellowships program all increase above the FY 2006 Current Plan. Support also increases for the new Excellence Awards in Science and Engineering program, and for the Scholarships for Service program. Math and Science Partnership funding will be continued for all existing projects including new awards made in FY 2006. Funding decreases from the FY 2006 Current Plan level for the Research and Evaluation on Education in Science and Engineering program and the Course, Curriculum and Laboratory Improvement program. As planned, support for the Higher Education Centers of Learning and Teaching ends in FY 2006. No funds are requested for the Academies for Young Scientists program, which will be piloted in FY 2006.</p>	
<b>Major Research Equipment and Facilities Construction</b>	<b>+50</b>
<p>Provides funding for two new starts: Alaska Region Research Vessel (ARRV) and the Ocean Observatories Initiative (OOI) and provides FY 2007 funding for six ongoing projects: ALMA, EarthScope, IceCube, NEON, Scientific Ocean Drilling Vessel and South Pole Station Modernization. Also provides funding to reimburse the DOJ Judgment Fund for a settlement related to the Polar Aircraft Upgrades project.</p>	
<b>Salaries and Expenses</b>	<b>+35</b>
<p>Requests an additional 22 FTE to address increased workload and strengthen post-award monitoring and oversight of large facility projects. Funding increases for IT include support for NSF as a Grants Management Line of Business consortia provider. The Business Analysis study concludes in FY 2006, so no funds are requested in FY 2007 for this effort.</p>	
<b>National Science Board</b>	<b>0</b>
<b>Office of Inspector General</b>	<b>+1</b>
<p>Increased funding supports anticipated increases in personnel cost-of-living expenses and two additional FTE.</p>	
<b>Total Change, NSF</b>	<b>+439</b>
<b>NSF FY 2007 Request Level</b>	<b>\$6,020</b>

Totals may not add due to rounding.