

**NATIONAL SCIENCE BOARD****\$4,340,000**  
**+\$310,000 / 7.7%**

The FY 2010 Request for the National Science Board is \$4.34 million, an increase of \$310,000, or 7.7 percent, over the FY 2009 Current Plan of \$4.03 million. The FY 2010 Budget Request will enable the Board to fulfill its policy-making responsibilities for NSF and provide advice to the President and the Congress on significant national policy issues in science and engineering (S&E) research and education. This increased funding will allow the Board to enhance its actions related to its responsibilities under the American Recovery and Reinvestment Act of 2009, increase activities in the review of major research facility projects, and continue efforts to assure transparency of Board policy decisions and meetings.

**National Science Board Funding**

(Dollars in Millions)

	FY 2008 Actual	FY 2009 Current Plan	FY 2010 Request	Change over FY 2009 Plan	
				Amount	Percent
Personnel Compensation and Benefits	\$2.11	\$2.62	\$2.83	\$0.21	8.0%
Other Operating Expenses	1.72	1.41	1.51	0.10	7.1%
<b>Total</b>	<b>\$3.83</b>	<b>\$4.03</b>	<b>\$4.34</b>	<b>\$0.31</b>	<b>7.7%</b>
Full-Time Equivalent Employment	16	16	17	1	6.3%

**Appropriation Language**

For necessary expenses (including payment of salaries, authorized travel, hire of passenger motor vehicles, the rental of conference rooms in the District of Columbia, and the employment of experts and consultants under section 3109 of title 5, United States Code) involved in carrying out section 4 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1863) and Public Law 86-209 (42 U.S.C. 1880 et seq.), ~~\$4,030,000~~: *Provided*, That not to exceed \$2,500 shall be available for official reception and representation expenses.

**National Science Board  
FY 2010 Summary Statement**

(Dollars in Millions)

	Enacted/ Request	Rescission	Expired	Total Resources	Obligations Incurred/Est.
FY 2008 Appropriation	\$3.97	-	-\$0.14	\$3.83	\$3.82
FY 2009 Current Plan (CP)	4.03	-	-	4.03	4.03
FY 2009 ARRA	-	-	-	-	-
FY 2010 Request	4.34	-	-	4.34	4.34
\$ Change from FY 2009 CP					\$0.31
% Change from FY 2009 CP					7.7%

Totals may not add due to rounding.

## **National Science Board in Context**

As an independent federal agency, NSF does not fall under any cabinet department; rather NSF's activities are guided by the National Science Board within guidelines provided by the President and Congress. The Board, established by the Congress in 1950, has dual responsibilities to: a) provide independent national science policy advice to the President and the Congress; and b) establish policies for NSF. The Board is composed of 25 presidentially appointed, Senate-confirmed members, including the Director of the National Science Foundation, representing the broad U.S. science and engineering community. Board members, who serve 6-year terms on staggered appointments, are drawn from industry, academe, non-profit organizations and professional scientific societies, and represent the breadth of S&E disciplines and geographic areas. They are selected for their eminence in research, education, or public service.

The Board meets several times a year to review and approve major NSF awards and new programs, provide policy direction to NSF, and to report to the President, Congress and the public on significant science and engineering related national policy issues. The Board conducts studies on a broad range of policy topics, analyzes NSF's budget to ensure progress and consistency along the strategic direction set for NSF, and also identifies issues that are critical to NSF's future.

## **National Science Board Activities**

### **Policy Guidance to the President and Congress**

The Board issues policy guidance in the form of official statements, resolutions, and reports to the President and Congress. Recent reports have examined topics such as cost sharing, science and engineering education, the science and technology workforce, and major research infrastructure projects. Another Board project, regarding the research and development efforts in alternative sustainable energy, will be released in FY 2009. For FY 2010, the Board expects to release findings on factors impacting the next generation of STEM (Science, Technology, Engineering and Mathematics) Innovators, and a policy statement Companion Piece to *Science and Engineering Indicators 2010, Digest of Key Science and Engineering Indicators 2010*, and its statutory biennial statistical report, *Science and Engineering Indicators 2010 (Indicators)*.

Experience has shown that the Board will receive requests from the President and/or Congress asking it to examine and report quickly on a wide range of national policy topics related to S&E research and education. The Board will also continue to identify high priority topics for FY 2010.

### **Establishing Policies for the National Science Foundation**

Enhanced Board responsibilities established by statute include the expanding role in prioritizing and approving Major Research Equipment and Facilities Construction (MREFC) projects, review of NSF policy with respect to cost sharing requirements in NSF awards, large facility pre-construction development, construction and post-construction operations and management costs, support for interdisciplinary research, and review of NSF policies limiting proposal submissions by institutions. In addition, by August 2010 the Board must submit to Congress a summary report of its findings, including any recommendations regarding changes to, the termination of, or the continuation of the NSF pilot program of grants for new investigators established under the America COMPETES Act of 2007.

The Board also expects to continue to be significantly engaged with assisting the agency in its activities related to the American Recovery and Reinvestment Act of 2009. Additional responsibilities specific to FY 2010 include NSF's implementation of components of the Board's Action Plan for STEM Education

and new efforts to be implemented regarding enhancement of NSF support for potentially transformative research as a result of Board guidance.

The Board's annual responsibilities include review of the following:

- NSF management tables and response to the OIG Semi-annual Reports to Congress;
- Annual NSF Budget Submission for transmittal to OMB;
- Foundation's annual Merit Review Report; and
- Large awards or proposal funding requests.

The Board has established several standing committees to assist with its responsibilities. The Committee on Audit and Oversight oversees the operations of the Foundation's Office of Inspector General (OIG), as well as NSF compliance with procedures for financial accountability and information technology security. The Committee on Strategy and Budget (CSB) focuses on strategic planning and new investments for NSF. Review of the Foundation's budget request is also vested in CSB. The Committee on Education and Human Resources (CEH) focuses on Foundation activities in such priority areas as S&E workforce development, math and science education, and underrepresented populations and regions in S&E programs. The newly constituted Committee on Science and Engineering Indicators (SEI) manages the process for development and review of the Board's biennial statistical report, *Science and Engineering Indicators* and associated products.

The Board is responsible for direct review and approval of the largest Foundation awards, and is responsible for the review and approval of major research infrastructure projects at all stages of development, including budget planning, review of proposals and management effectiveness, and approval of awards. The members of the Committee on Programs and Plans (CPP) review proposals for major awards, the health of the Foundation's merit review system, and program performance and accountability. The Board monitors the critical infrastructure that supports research in Antarctica through the CPP Subcommittee on Polar Issues.

The Executive Committee acts on behalf of the Board between meetings on grants, contracts, and other instances where an immediate decision is required. In addition, the Committee is developing a prioritization process for the full Board to determine major Board policy activities for subsequent fiscal years. This prioritization process is expected to be finalized and approved in May 2009.

## **Summary of FY 2010 Request**

### **Staffing**

Most of the Board's FY 2010 Budget Request supports a small and independent core of full-time policy, administrative, and operations staff. Over 65 percent of the FY 2010 request, or \$2.83 million, is for Board member and staff salaries and benefits. The Board Office staff members provide the independent resources and capabilities for coordinating and implementing S&E policy analyses and development, and the operational support that is essential for the Board to fulfill its mission. The one additional FTE requested in the FY 2010 request is for the Board's Administrative Manager who is returning from leave after five years of military service. Increased staff support will also be applied to the new Subcommittee on Facilities, the increasing number of awards coming to the Board for reviews, and support for Science and Engineering Indicators.

### **Science and Engineering Indicators**

In FY 2010, the Board will deliver *Science and Engineering Indicators (Indicators) 2010* to the President and to Congress, in keeping with its statutory responsibility. *Indicators* is an important biennial statutory

publication of the major, high quality quantitative data on the status of U.S. science and engineering. Over the past several years, the Board has heightened its efforts to expand the audience for Indicators, implementing several enhancements that encourage audiences outside the normal community of users to become familiar with the data resources in Indicators and to facilitate the use of Indicators data in policy decisions and analyses. With the last cycle of Indicators, in 2008, the Board prepared a short *Digest of Key Science and Engineering Indicators* that provided selected graphical summaries of important trends and data points relevant to U.S. science and technology, with an explanation of why the U.S. public should be interested in these data. The Board plans to enhance the graphical capabilities of the web version of the *Digest* and other statistical resources to enable the analysis and interpretation of data by students, teachers, professionals and policy makers.

### **The Next Generation of STEM Innovators Report**

In FY 2010, the Board will deliver a report on future STEM Innovators. Gathering national experts, the Board plans to:

- Identify strategies for nurturing the talents of those individuals in adolescence and early adulthood who are likely to become the next generation of high level STEM professionals and innovators;
- Explore the possible existence of pools of potential talent in our society that currently are overlooked, under-developed, and under-utilized, but who could become a source of adults productive in STEM to fuel innovation in this country;
- Develop a research agenda on effective means for nurturing and developing the STEM talent in youth and early adulthood in order to accelerate the STEM productivity and creativity of such individuals over their careers; and
- Suggest development of policies that could help ensure a strong pipeline of STEM talent and nurture innovation in the STEM workforce.

### **Policy for Research Facilities**

In FY 2010, the Board will staff and fully implement a Subcommittee on Facilities to provide recommendations on the development, construction, operations, maintenance, and decommissioning of research equipment and facilities supported by NSF. This is an essential component of annual and long-term budget planning undertaken by the National Science Board.

The Subcommittee on Facilities reports to the Committee on Strategy and Budget (CSB) and assists the Board in strategic budget planning for the NSF-funded research equipment and facilities portfolio. Subcommittee responsibilities include:

- Undertaking an annual review of the portfolio of all NSF-funded research facilities. This review considers projects from the MREFC account, as well as large and mid-size research facilities and infrastructure funded by the Research and Related Activities (R&RA) account. The review considers currently operating facilities, as well as those under construction and in early and late-stage planning. The review further considers impacts on the long-term budgets of NSF divisions, directorates, and the Foundation as a whole and potential partnerships among NSF directorates and offices and with other organizations.
- Providing to the Board a clear assessment of the impact that specific projects and the overall facilities portfolio will have on long-term budget planning at NSF. This includes consideration of whether existing facilities continue to be the best use of NSF's limited resources given alternative potential uses of funding for research facilities and individual investigator-led research.
- Recommending to the Board guidance to be provided to NSF management on the prioritization of all projects that have completed a Conceptual Design Review (CDR) and are being considered for further funding to develop Preliminary Designs.

### **Effective Communication with the Public**

Effective communications and interactions with our constituencies contribute to the Board's ability to identify priority science and technology issues, and to develop policy advice and recommendations to the President and Congress. To this end, the Board will continue to increase communication and outreach with the university, industry, professional scientific societies, the broader science and engineering research and education community, Congress, federal science and technology agencies, and the public. To enhance and improve upon outreach activities, it is important to make the Board's discussions on policy and recommendations more accessible, transparent, and widely available.

One of the major functions of the Board Office is to store and maintain records of Board decisions and policy pronouncements. The records of these decisions, and policy statements and reports on national science and engineering policy issues prepared for the President and Congress, are currently housed in various formats and media. Electronic and paper documents are not easily accessible to the public, other Federal agencies, or staff of the Foundation because they are maintained in inconsistent systems of records, as individual reports and statements, or in testimony, letters and other communications with Congress and other agencies. For older records, many have been archived as paper documents and their existence relies on the memory of staff who participated in the policy discussions. This situation creates substantial barriers to the Board Office's ability to respond to frequent requests from interested members of the public, science historians, and NSF staff who wish or need to understand the underlying process for particular decisions or to obtain original documents relevant to a policy position.

In FY 2010, the Board will begin development of electronic resources to search, identify and retrieve relevant electronic documents, in a common electronic format, for use by stakeholders including members of the public, Congress, other agencies, and NSF staff. This work will start with Board resolutions establishing NSF policy and will determine the extent of necessary future resources to permit historians, the media, policy analysts, and other members of the public and Federal establishment to feel confident in the completeness of the information they are obtaining on Board discussions and decisions, facilitate NSF staff implementation of Board policies within the Foundation, and reduce the administrative cost and effort associated with information retrieval.

Other costs associated with supporting Board activities include website maintenance; transcription services; report printing and distribution; and logistical support for Board meetings, workshops and roundtables. The Board's logistical support provides limited services for events including: travel planning assistance for invited speakers and participants; mailing of announcements and invitations; local transportation planning, printing, audio-visual and other services for off-site events; and additional low-level meeting, workshop and roundtable support.

**Personnel Compensation and Benefits and General Operating Expenses**

(Dollars in Thousands)

	FY 2008	FY 2009	FY 2010	Change over	
	Actual	Current Plan	Request	FY 2009 Plan Amount	Percent
Personnel Compensation and Benefits	\$2,108	\$2,620	\$2,830	\$210	8.0%
Staff Development & Training	28	45	47	2	4.4%
Advisory & Assistance Services	1,040	723	781	58	8.0%
Travel & Transportation of Persons	480	449	480	31	6.9%
Communications, Supplies and Equipment	161	190	199	9	4.7%
Representation Costs	8	3	3	-	-
<b>Total</b>	<b>\$3,825</b>	<b>\$4,030</b>	<b>\$4,340</b>	<b>\$310</b>	<b>7.7%</b>
<b>FTE</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>1</b>	<b>6.3%</b>

Totals may not add due to rounding.