



Overview: The FY 2011 Federal Budget Request

On February 1, President Barack Obama unveiled a \$3.83 trillion federal budget blueprint for fiscal year 2011 (which begins this October 1). Here's a detailed breakdown of how the federal agencies and programs of most interest to ASTC and its members fared...

National Science Foundation

	FY 2008	FY 2009	FY 2010	FY 2011
NSF	6,084	6,469	6,873	7,424
EHR	766	846	873	892
DRL	212	227	242	248
MSP	47.9	60.9	58.2	58.2
ISE	64.5	65.7	66	64.4
CCE	-	9.9	10	10
CTE	-	-	25.3	25.3

(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)

Generally speaking, the National Science Foundation (NSF) did remarkably well under the President's budget request for fiscal year 2011; the agency is slated to receive \$7.424 billion, a significant, \$552 million increase over the \$6.873 billion appropriated for FY 2010. Both the Directorate for Education and Human Resources (EHR) and the Division of Research on Learning in Formal and Informal Settings (DRL) would also see increases, while the Math and Science Partnership (MSP) program would be level-funded.

The Informal Science Education (ISE) program, on the other hand, was not so fortunate. The Administration is proposing \$64.4 million for FY 2011, \$1.6 million (-2.4%) less than the \$66 million available for FY 2010. The budget request includes the following language related to ISE:

The ISE program will focus its portfolio in concert with recommendations in the recent National Research Council synthesis study, Learning Science in Informal Environments: People, Places, and Pursuits, which calls for increased emphasis on research and development to build the knowledge base about learning in informal settings. It also will heighten program focus on climate change and cyberlearning.

The agency's Climate Change Education (CCE) program is referred to as an "Administration priority" in the budget request, and would receive \$10 million in funding for FY 2011. Of that amount, \$5.5 million would come from EHR, while the remainder would come from the Directorates for Geosciences and Biological Sciences and the Office of Polar Programs. From the request:

A key goal [of the CCE] will be to increase knowledge about the science of climate change in formal and informal learning settings. It will support individual investigators and multidisciplinary teams of STEM researchers and educators in a range of activities, including those local, regional, and/or global in scope.

The Cyberlearning Transforming Education (CTE) program would receive \$25 million in funding for FY 2011, with portions of that amount coming from a variety of directorates and programs, including \$2.5 million from ISE. From the request:

This new multidisciplinary program [will] fully capture the transformative potential of advanced learning technologies across the education enterprise. This will catalyze new approaches to science, technology, engineering, and mathematics learning for students and for workforce development. Additionally, it will provide the pathways and resources to study the learning process itself.

National Institutes of Health

	FY 2008	FY 2009	FY 2010	FY 2011
NIH	29,380	30,318	31,010	32,007
NCRR	1,156	1,226	1,269	1,309
SEPA	16.2	18	18.3	18.9

(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)

Like NSF, the National Institutes of Health (NIH) would receive an overall increase for FY 2011 under the President’s proposal. The \$32.007 billion requested is roughly \$1 billion more than the \$31.010 billion appropriated for FY 2010.

Of that total amount, NIH’s National Center for Research Resources (NCRR) would see \$1.309 billion in FY 2011, an increase of \$40 million above the FY 2010 level of \$1.269 billion. The Science Education Partnership Awards (SEPA) program, which is administered by NCRR, is also slated for an increase in FY 2011. The \$18.9 million requested is \$550,000 more than the amount appropriated for FY 2010. From the request:

The goals of the SEPA program are to 1) increase the pipeline of future scientists and clinicians, especially from minority, underserved, and rural K-12 students and 2) to engage and educate the general public on the health-related advances made possible by NIH-funded research. By creating relationships among educators, museum curators, and medical researchers, SEPA encourages the development of hands-on, inquiry-based curricula that inform participants about such timely issues as obesity, stem cells, and infectious diseases. In addition, SEPA provides professional development for teachers and mentoring opportunities for students.

The request also notes that in FY 2011, NCRR and SEPA will continue efforts to “encourage science museums, which reach a wide audience, to educate the public in the benefits of NIH-supported research.”

Institute of Museum and Library Services

	FY 2008	FY 2009	FY 2010	FY 2011
IMLS	263,507	274,840	282,251	265,869
Library Grants	199,963	212,179	213,523	213,523
Museum Grants	30,445	33,697	33,727	33,727
Mus. for America	16,852	19,176	19,176	19,176
MAP	434	460	460	460
21st Century MP	965	1,280	1,280	2,280
CPS	2,724	3,052	3,052	3,052
CAP	793	803	803	803
Native/Hawaii	895	945	975	975
National Ldrshp.	7,782	7,981	7,981	6,981
African Am. Hist.	827	1,310	1,485	1,485
Cong. Earmarks	18,285	10,737	16,382	-

(in thousands of dollars; numbers are rounded; FY 2011 reflects requested amount)

The Institute of Museum and Library Services (IMLS) would be – programmatically-speaking – level-funded for FY 2011 under the President’s request. Though the \$265.9 million proposed is \$16.4 million less than the total amount available for FY 2010, the difference is attributable to the lack of “earmarks,” which were included by Congress in FY 2010 but do not appear in the budget request.

Nearly all museum programs, including Museums for America, the agency’s largest, would receive FY 2010 funding levels in the upcoming fiscal year, with two exceptions: the 21st Century Museum Professionals program would see a \$1 million increase in FY 2011, and National Leadership Grants for museums would see a \$1 million reduction.

National Aeronautics and Space Administration

	FY 2008	FY 2009	FY 2010	FY 2011
NASA	17,402	17,782	18,724	19,000
Education	147	169	183	146
Sci. Mus. Grants	7.8	7	7	-
NIEO	-	-	2.1	2.1

(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)

The President's budget request also includes an increase in overall funding for the National Aeronautics and Space Administration (NASA). If enacted, the agency would receive \$19 billion for FY 2011, \$276 million more than the amount available for FY 2010.

The NASA education account would see a \$37 million reduction, from \$183 million in FY 2010 to \$146 million in FY 2011. Furthermore, funding for the Science Museums and Planetarium Grant program – which has seen at least \$7 million in each of the past three fiscal years because of Congressional interest – was not included in the request for the following reason:

NASA will be able to achieve the intended outcomes of [this] Congressionally-directed initiative[s], as well as NASA's stated education goals, through the programs for which the agency is requesting funding.

The NASA Informal Education Opportunities (NIEO) program is slated to receive \$2.1 million in FY 2011, the same amount that was appropriated for FY 2010. According to the agency's budget request:

NEIO, a project within the informal Science, Technology, Engineering, and Mathematics (STEM) Education program, will seek innovative approaches to conducting informal education in the Nation's science centers, museums, community groups, and other organizations. NASA Informal STEM Education will continue to support both the NASA Field Center[s] [and] requests from local, state, and other informal education providers who use NASA content to engage their audiences in STEM experiences that inspire STEM achievement and increase public understanding and awareness of NASA's mission achievements.

Department of Education

	FY 2008	FY 2009	FY 2010	FY 2011
Dept. of Ed.	45,000	45,358	46,222	50,700
Race to the Top	-	4,000*	-	1,350
Invest. in Innov.	-	650*	-	500
Eff. Teach: STEM	-	-	-	300
MSP	179	179	180.5	-
Promise Neigh.	-	-	10	210
21st CCLC	1,081	1,131	1,166	1,166

(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)

*funding was provided via the American Recovery and Reinvestment Act of 2009

The Department of Education (ED) would receive \$50.7 billion in discretionary funding for FY 2011 under the budget request, an increase of \$4.5 billion over the comparable amount provided for FY 2010. Included in the request is an additional \$1.35 billion for the Race to the Top (RTTT) program; \$4 billion from the American Recovery and Reinvestment Act (AARA) got the program started. According to ED:

The Race to the Top program [has] provided a significant incentive, through competitive grants, for States to develop comprehensive and innovative plans to implement major reforms related to each of the four assurances (supporting rigorous standards and assessments, improving teacher quality and effectiveness, using data to improve instruction, and turning around low-performing schools). States already have responded to Race to the Top by making essential changes, such as allowing data systems to link the achievement of individual students to their teachers and permitting more rapid expansion of effective charter schools.

In addition to funding new State awards, the agency notes that the Obama Administration will also ask for authority to run “a district-level competition for districts willing and able to tackle comprehensive reform.”

ED proposes the continuation of another initiative initially supported through the ARRA: the Investing in Innovation (i3) program, which received \$650 million in ARRA funds. According to the budget request:

[i3] makes competitive awards to develop and expand innovative strategies and practices that have been shown to be effective in improving educational outcomes for students. The [FY] 2011 request both includes a cross-cutting emphasis on technology and dedicates \$150 million to science, technology, engineering, and mathematics projects.

Also in ED’s budget request is a \$1 billion proposal for Effective Teaching and Learning for a Complete Education, a new program “designed to improve instruction to support college and career readiness standards, in part through the use of technology to deliver high-quality content.” The program would encompass the agency’s portion of the Math and Science Partnerships (MSP) program, and one of its three components is, therefore, STEM-related. The \$300 million included in the request for that particular purpose would:

...provide competitive grants to State Education Agencies (SEAs), and SEAs in partnership with outside entities (such as non-profit organizations and institutions of higher education), to improve the teaching and learning of STEM subjects, especially in high-need schools. Funds could be used to provide professional development for STEM teachers, to implement high-quality curriculum, assessments, and instructional materials, and to create or improve systems for linking student data on assessments with instructional supports such as lesson plans and intervention strategies. The reauthorization would support the identification and scaling-up of innovative methods of teaching STEM.

Funding is also proposed for the Obama Administration’s Promise Neighborhoods initiative, which received \$10 million for FY 2010 and is described as follows:

This initiative would support a second cohort of competitive 1-year planning grants and the first cohort of 5-year implementation grants to community-based organizations for the development and implementation of plans for comprehensive neighborhood programs modeled after the Harlem Children’s Zone. These programs would be designed to combat the effects of poverty and improve education and life outcomes, from birth through college and career, for children and youth within a distressed geographic area. Applicants would demonstrate their ability to sustain the Promise Neighborhood and build effective partnerships with schools, non-profit organizations, foundations, and local and State agencies.

Finally, the agency’s 21st Century Community Learning Centers (21st CCLC) afterschool program would receive level funding of \$1.17 billion under the request. The Obama Administration states that its proposal would:

...focus the 21st CCLC program on (1) providing students with additional time to engage in activities that directly improve their knowledge of core academic subjects and improve their academic achievement; (2) providing students with additional time for enrichment activities and opportunities to experience a richer, fuller curriculum; (3) providing students with access to comprehensive supports that promote academic achievement as well as mental and physical health, and (4) providing families and caregivers opportunities for active and meaningful engagement in their children’s education.

National Oceanic and Atmospheric Administration

	FY 2008	FY 2009	FY 2010	FY 2011
NOAA	3,907	4,374	4,748	5,555
Education	34.1	46.1	53.8	20.8
Comp. Ed. Grants	4.9	8.5	12	20.8

(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)

The National Oceanic and Atmospheric Administration would receive \$5.555 billion under the

President's request, an increase of \$806 million above the FY 2010 enacted level. Of that total amount, \$20.8 million is set-aside for the agency's education program. Note that while this appears to be a \$33 million reduction from the FY 2010 level of \$53.8 million, much of that is attributable to the lack of Congressional earmarks, which do not appear in the President's request.

Department of Energy

	FY 2008	FY 2009	FY 2010	FY 2011
Dept. of Energy	24,032	26,037	26,406	28,354
ARPA-E	-	415*	-	300
RE-ENERGYSE	-	-	-	50

**(in millions of dollars; numbers are rounded; FY 2011 reflects requested amount)
*most funding was provided via the American Recovery and Reinvestment Act of 2009**

The Department of Energy (DOE) is slated to receive \$28.354 billion for FY 2011 under the budget request, \$1.9 billion more than the amount appropriated for FY 2010. \$300 million of the total amount is proposed for the agency's Advanced Research Projects Agency-Energy (ARPA-E), which received \$415 million in funding for FY 2009 (\$15 million from the Omnibus Appropriations Act and \$400 million from the ARRA). According to the budget request:

ARPA-E sponsors specific high-risk and high-payoff transformational research and development projects that overcome the long-term technological barriers in the development of energy technologies to meet the Nation's energy challenges, but that industry will not support at such an early stage.

DOE also proposes \$50 million in funding for a new Regaining Our Science and Engineering Edge (RE-ENERGYSE) program, for which funding was also sought (without success) for FY 2010. The program:

...is a broad educational effort that cuts across program offices to inspire students and workers to pursue careers in science, technology, engineering, and entrepreneurship related to clean energy. RE-ENERGYSE is a new initiative to focus on a number of critical areas that will build the foundation of a vibrant American workforce to participate in the green economy.