



ASTC Legislative Update

June 5, 2008

Fiscal Year 2009 Budget Release

President Bush released a \$3.1 trillion federal budget for fiscal year (FY) 2009 on February 4, saying that it achieves important objectives like defending the country, keeping the economy growing, and making tax relief permanent. In addition, he touted the budget—the last one he will submit—as one that holds discretionary spending at less than 1%, eliminates 151 “wasteful or bloated programs” that will save taxpayers \$18 billion, and helps achieve a balanced budget by 2012.

Status of Fiscal Year 2009 Appropriations Bills

Despite the claims above, the outlook for the passage of this budget by Congress is unlikely at best. According to an article in the June 2 issue of *CongressDailyAM*, “key lawmakers on both sides of the aisle are resigned to the idea that few, if any, of the 12 FY 09 appropriations bills will be separately enacted and fear they will be packaged into an omnibus measure as congressional leaders formulate a post-election strategy that looks toward a new president and Congress.” The article indicates that House Defense Appropriations Subcommittee ranking member C.W. (Bill) Young (R-FL-10th) believes “most, if not all” appropriations bills will be “settled with a continuing resolution that would put off spending decisions until after the election.”

While the House and Senate each passed versions of a budget resolution in mid-March, none of the aforementioned FY 09 appropriations bills that fund federal agencies have yet been approved on any level.

National Science Foundation

	FY 2006	FY 2007	FY 2008	FY 2009
NSF	5,646	5,916	6,065	6,854
EHR	797	797	725.6	790.4
DRL	216	216	214	226.5
MSP	63.17	46	48.5	51
ISE	62.65	63.93	65	66

(in millions of dollars; FY 2009 reflects levels as *proposed*)

NSF fared quite well overall under the president’s FY 09 request, and would receive \$6.85 billion in total funding, an increase of \$789.1 million (13%) over the FY 08 level. During the NSF budget presentation (which ASTC attended), director Arden Bement stated that “increased federal investments in research and education are imperative now to sustain our comparative advantages in a flattening world,” adding that the FY 09 budget “reflects that commitment.” It should be noted that Dr. Bement also highlighted the agency’s support for an “enduring strategy for education” during the presentation, even stating that the agency is able to “reach a broader public through informal education.”

The agency’s Directorate for Education and Human Resources (EHR) would receive \$790.4 million for FY 09, an increase of \$64.8 million (8.9%) over the FY 08 level. EHR’s Division of Research on Learning in Formal and Informal Settings (DRL)—where the Informal Science Education (ISE) program resides—would receive \$226.5 million for FY 09, \$12.5 million (5.8%) more than the FY

08 level. ISE would receive \$66 million for FY 09 under the request, \$1 million (1.5%) more than it has available for FY 08. According to NSF, this increase would result in 1-3 additional awards in FY 09. From the budget request:

ISE supports the design and development of experiences that encourage learning in informal settings and that promote public engagement with, and understanding of, the STEM disciplines. ISE projects advance leading-edge, state-of-the-art efforts to expand the venues and opportunities for science learning, for learners at all ages. Projects that strengthen infrastructure, engage underserved audiences, involve the public, and introduce innovative uses of technologies will be of highest priority.

NSF's portion of the Math and Science Partnership (MSP) program (overseen by the Division of Undergraduate Education) would receive \$51 million for FY 09, \$2.5 million (5.2%) more than it received for FY 08. Also from the budget request:

MSP at NSF is a research and development effort to build capacity and integrate the work of higher education, especially its STEM disciplinary faculty, with that of K-12 to strengthen and reform science and mathematics education. MSP will continue to coordinate its efforts with other education programs at NSF, the Department of Education, and in states.

The House Science and Technology Committee, which has authorizing jurisdiction over NSF, held a hearing on the agency's FY 09 budget on February 26. Dr. Bement highlighted the importance of informal science education during his opening statement, specifically mentioning museums and the role they play in reaching "millions of Americans." He also stated that the ISE program offered a "tremendous return on its investment."

The following morning, the House Commerce, Justice, and Science (CJS) Appropriations Subcommittee, which is primarily responsible for determining how much funding NSF receives, held its FY 09 NSF budget hearing. Members of the subcommittee expressed strong support for the agency, but clearly viewed the budget request as a "mixed bag," in the words of Chairman Tom Mollohan (D-WV-1st). During his opening remarks, the chairman noted that the request fell far short of the authorized level, specifically mentioning EHR in that context. Dr. Bement once again mentioned the role museums play in science education during his opening statement, and referred to museums when responding to a question during the hearing. In addition, EHR Deputy Assistant Director Wanda Ward told the committee that the ISE program was "very important" and touted the exhibits and films it helps fund.

The Senate CJS Appropriations Subcommittee cancelled a March 13 hearing on NSF's FY 09 budget and it may not be rescheduled; Dr. Bement submitted testimony for the record.

Institute of Museum and Library Services

	FY 2006	FY 2007	FY 2008	FY 2009
IMLS	247,144	247,205	263,507	271,246
Library Grants	203,519	203,519	199,963	214,432
Museum Grants	30,986	30,986	30,445	38,547
Mus. for America	17,152	17,152	16,852	22,165
MAP	442	442	434	500
MP 21st Century	982	982	965	2,141
CPS	2,772	2,772	2,724	3,801
CAP	807	807	793	814
Native/Hawaii	911	911	895	945
National Ldrshp.	7,920	7,920	7,782	8,181
African Am. Hist.	842	842	827	1,350
Mus. Data Collect.	N/A	N/A	N/A	500
Lib. & Mus. Rept.	N/A	N/A	N/A	1,000

(in thousands of dollars; FY 2009 reflects levels as *proposed*)

IMLS would receive \$271.25 million in overall funding for FY 09 under the budget request, \$26.02 million more than the FY 08 enacted level of \$245.2 million (10.6%) and \$7.74 million more than the \$263.5 million it ultimately received for FY 08 when Congressional “earmarks” or “member projects” are also taken into consideration. The FY 09 request includes \$214.4 million for library grant programs (\$14.47 million more than the FY 08 level) and \$38.5 million for museum grant programs (\$8.1 million more than the FY 08 level).

On the museum side, increases are proposed for all major programs: Museums for America, Museum Assessment Program (MAP), Museum Professionals for the 21st Century, Conservation Project Support (CPS), Conservation Assessment Program (CAP), Native American and Native Hawaiian Museum Services, National Leadership Grants for Museums, and Museum Grants for African American History and Culture. The IMLS budget request also includes \$500,000 to launch a pilot program on museum data collection, and an additional \$1 million to study and report on the state of libraries and museums in the United States. From the budget request:

...the Institute is also requesting funding to begin ongoing national data collection about museums. Over the years, the Institute has supported a number of studies to document the state of collections care in the nation's museums, libraries, and archives; the status of museum-school partnerships; and the use of technology and digitization in the nation's museums. There is no consistent ongoing data collection about museums, however. We do not know from year to year such basic information as how many museums there are in the United States, how many people they serve, where they are, or how their collections are digitized and made available online. We need more data to know how the American public is being served by museums and where the gaps are.

The House and Senate Labor, Health and Human Services, and Education (L-HHS) Appropriations Subcommittees are primarily responsible for funding IMLS. Due to the size of the agency, they typically do not hold budget hearings, and this year is no exception.

National Institutes of Health

	FY 2006	FY 2007	FY 2008	FY 2009
NIH	28,524	29,137	29,465	29,465
NCRR	1,089	1,132	1,149	1,160
SEPA	15.98	16.01	16.01	16.01

(in millions of dollars; FY 2009 reflects levels as *proposed*)

Unlike NSF and IMLS, NIH is not in line for an increase under the president’s budget request for FY 09. In fact, the administration’s proposal for level funding of \$29.46 billion for the agency could be viewed as a net loss if increased cost-of-living expenses and inflation are also factored into the equation.

NIH’s National Center for Research Resources (NCRR), which oversees the Science Education Partnership Award (SEPA) program, would receive \$1.16 billion under the request, slightly more than the \$1.15 billion it received for FY 08. The SEPA program itself is slated for level funding of just over \$16 million for FY 09, continuing a trend that has been evident over the past several years. From the budget request:

The two major goals of the SEPA program are to (1) increase the pipeline of future scientists and clinicians, especially from minority, underserved, and rural kindergarten to grade 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.

In FY 2007, NCRR funded 10 SEPAs to engage students and the public in health sciences. This round of new awards brings the SEPA portfolio to 62 active grants. The program continues its emphasis on rural and underserved populations with 16 out of the 23 Institutional Development Award (IDeA) states and Puerto Rico receiving current SEPA funding.

The House and Senate L-HHS Subcommittees are also responsible for determining the size of NIH's budget. The House subcommittee held its hearing on the NIH budget on March 5; the Senate subcommittee has not yet followed suit.

National Aeronautics and Space Administration

	FY 2006	FY 2007	FY 2008	FY 2009
NASA	16,246	16,285	17,309	17,614
Education	162.4	115.9	146.8	115.6
Informal Ed.	34	1.6	0	2
Sci. Mus. Grants	N/A	N/A	7.8	N/A

(in millions of dollars; FY 2009 reflects levels as *proposed*)

NASA would receive \$17.61 billion in overall funding for FY 09 under the budget request, an increase of \$305 million over the FY 08 level of \$17.31 billion. The request includes \$115.6 million for education activities, a significant reduction from the FY 08 level, mostly due to (in NASA's words) "four Congressionally-directed initiatives that NASA does not intend to continue in FY 2009." Among these FY 08 initiatives is a \$7.8 million grant program for science museums and planetariums that "will enhance programs related to space exploration, aeronautics, space science, or microgravity."

NASA's FY 09 budget request also includes \$2 million for informal education; the program was not funded in FY 08. The agency's informal education plans call for a focus on NASA Explorer Institutes (NEI). From the budget request:

Four categories of NEI projects will be considered for funding in FY 2009 including: Professional Development Workshops; STEM Learning Tools and Products; Infrastructure Development; and Partnerships for Sustainability.

The House Science and Technology Committee, which has authorizing jurisdiction over NASA, held a hearing on the agency's FY 09 budget on February 13, while the House and Senate CJS Subcommittees held similar hearings on March 5-6 and April 3, respectively. In his written Senate testimony, NASA Administrator Michael Griffin highlighted the educational components of the August 2007 Space Shuttle mission that included Educator Astronaut Barbara Morgan and also assured the committee that NASA is committed to STEM education.

Department of Education

	FY 2006	FY 2007	FY 2008	FY 2009
ED	56,553	57,469	59,183	59,210
21st CCLC/LO	981.2	981.2	1,081.2	800
TQ State Grants	2,887	2,887	2,935	2,835
MSP	182.2	182.2	179	179
Math Now	N/A	N/A	N/A	95

(in millions of dollars; FY 2009 reflects levels as *proposed*)

The Department of Education would receive over \$59 billion in total funding under the FY 09 budget request, a slight increase over the FY 08 enacted level. The request includes \$800 million for the 21st Century Learning Opportunities (formerly the 21st Century Community Learning Centers) program, \$281.2 million less than the amount available for FY 08. The agency's budget

request offers more detail on the proposed changes that will coincide with the change in name:

As currently authorized, this program helps communities establish or expand centers that provide extended learning opportunities for students and related services to their families. From their formula grants, states make competitive awards to school districts, community-based organizations, faith-based organizations, and other public or private entities for projects that primarily serve students attending high-poverty schools.

...a national evaluation of the program and the program's performance data to date cast doubt on whether the program is achieving results; in particular, performance data indicate that there has been little improvement in key academic outcomes since 2004.

The request is based on a proposal to transform the program into an after-school and summer-school scholarship program...that would give parents greater choices in the selection of extended-learning opportunities for their children and focus the program more precisely on using the time outside of school to improve educational achievement consistent with State standards.

The request also includes \$95 million for the Math Now program, which:

...authorizes competitive grants to improve instruction in mathematics for students in kindergarten through 9th grade. Grantees will implement research-based mathematics programs to enable all students to reach or exceed grade-level achievement standards and prepare them to enroll in and pass algebra courses.

School districts that receive funds would use them to: (1) implement mathematics programs that are research-based and reflect a demonstrated record of effectiveness; (2) provide professional development to teachers and, if appropriate, administrators and other school staff, on the implementation of mathematics initiatives designed to improve student achievement, improve mathematical content knowledge, increase the use of effective instructional practices, and monitor student progress; and (3) conduct continuous progress monitoring to measure student progress and identify areas in which students need help learning mathematics. School districts could also use their funds to adopt and use mathematics instructional materials and assessments, implement classroom-based assessments, provide remedial coursework and interventions for students, provide small groups of students with individualized instruction, conduct activities to improve teachers' content knowledge, and collect and report performance data.

In addition, the budget request includes \$2.84 billion for Teacher Quality State Grants (\$100 million less than the program received for FY 08) and \$179 million for the Department of Education's Math and Science Partnerships (the same amount the program received for FY 08).

Education Secretary Margaret Spellings delivered FY 09 budget testimony before the House L-HHS Subcommittee on February 26; she has not yet done so before the Senate L-HHS Subcommittee.

National Oceanic and Atmospheric Administration

	FY 2006	FY 2007	FY 2008	FY 2009
NOAA	3,911	3,895	3,907	4,109.8
Education	37.51	30.45	34.06	16.53
Comp. Ed. Grants	N/A	N/A	4.88	1

(in millions of dollars; FY 2009 reflects levels as *proposed*)

The National Oceanic and Atmospheric Administration (NOAA) would receive nearly \$4.11 billion in overall funding under the FY 09 budget request, \$202.5 million more than the \$3.9 billion it received for FY 08. The budget request for NOAA includes \$16.53 million for the NOAA Education Program, \$17.53 million less than the \$34.06 million available for FY 08. It appears that this reduction in funding is the result of the agency's decision not to request funds for Congressionally-directed projects that received funding for FY 08. In its budget request, NOAA does note that it is

requesting \$1 million in funding for an educational program that will:

...leverage external capability through competitive grant awards that promote environmental literacy in NOAA related fields and the use of NOAA data and products in formal and informal education settings.

The Senate CJS Subcommittee held its hearing on NOAA's FY 09 budget on March 13; their Senate counterparts have yet to do the same.

Other Legislation

A number of bills related to STEM education—and, therefore, of interest to ASTC and its members—have been introduced during the 1st and 2nd sessions of the 110th Congress:

On January 4, 2007, Senator Edward Kennedy (D-MA) introduced the **States Using Collaboration and Coordination to Enhance Standards for Students (SUCCESS) Act** (S. 164), which would require a biennial national assessment of student achievement in grades four and eight—and grade 12 student preparedness—in reading, math and science. Currently, science is not included in such assessments and grade 12 assessments need not be biennial. Among other things, the legislation would also require that U.S. standards be comparable to rigorous international standards. The bill currently has no co-sponsors and has been referred to the Senate Committee on Health, Education, Labor and Pensions (HELP) for review.

On January 9, 2007, Representative Vernon Ehlers (R-MI-3rd) introduced the **Standards to Provide Educational Achievement for Kids (SPEAK) Act** (H.R. 325), which would create, adopt and implement rigorous and voluntary education content standards in math and science for grades K-12 and would provide for the assessment of student proficiency benchmarked against these standards. The bill currently has 9 co-sponsors and has been referred to the House Committee on Education and Labor for review. A companion bill (S. 224) was introduced in the Senate on the same day by Senator Christopher Dodd (D-CT). It currently has one co-sponsor and has been referred to the HELP Committee for review.

On January 10, 2007, Representative Bart Gordon (D-TN-6th), Chairman of the House Committee on Science and Technology, introduced the **10,000 Teachers, 10 Million Minds Science and Math Scholarship Act** (H.R. 362). The legislation would revise the requirements and stipend levels for NSF's Robert Noyce Scholarship program, revise requirements for NSF's Math and Science Education Partnerships program, authorize NSF funding for workshops and professional development and require NSF's Director to convene a panel of experts to identify, collect and recommend the development of K-12 math and science teaching materials. After approval by the House Committee on Science and Technology, the bill passed the full House by a 389-22 margin and was referred to the Senate HELP Committee before eventually being incorporated into H.R. 2272, which became Public Law 110-069 on August 9 (see below). ASTC joined other members of the STEM Education Coalition in signing a letter to Chairman Gordon and Ranking Member Ralph Hall (R-TX-4th) to express support for the bill.

On January 17, 2007, Representative Reuben Hinojosa (D-TX-15th) introduced the **Partnerships for Access to Laboratory Science (PALS) Act** (H.R. 524). The legislation would help create an NSF pilot program designed to explore the best ways to improve high school science laboratory facilities in high-need schools. The bill currently has 80 co-sponsors and has been referred to the House Committee on Science and Technology for review. A companion bill (S. 810) was introduced in the Senate by Senator Robert Menendez (D-NJ) on March 8 and referred to the HELP Committee for review. It currently has no co-sponsors.

On March 5, 2007, Senator Hillary Clinton (D-NY) introduced the **National Mathematics and Science Consistency Act** (S. 757), which is designed to create a set of effective voluntary national expectations for math and science education from grades K-12. The bill currently has no co-sponsors and has been referred to the HELP Committee for review.

Also on March 5, 2007, Senator Harry Reid (D-NV) introduced the **America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education and Science (COMPETES) Act** (S. 761), a lengthy bill that addresses programs at the Departments of Commerce, Energy, Education and NSF. Among other things, the bill would strengthen the EHR Directorate at NSF through equitable distribution of new funds and increase support for science education. The bill had 69 co-sponsors when it passed the Senate by an 88-8 vote. After passage there, it was incorporated into a House competitiveness bill (H.R. 2272) that was introduced on May 10. The final version of the bill (its Conference Report) was ultimately approved by both the House and Senate on August 2 and signed into law by the President on August 9. **The Public Law also reauthorized NSF for fiscal years 2008, 2009, and 2010.**

On May 22, 2007, Representative Darlene Hooley (D-OR-5th) introduced the **Nanotechnology in the Schools Act** (H.R. 2436), designed to strengthen the capacity of eligible institutions to provide instruction in nanotechnology. It should be noted that “informal learning science and technology centers” are specifically mentioned as “eligible institutions.” The bill currently has 11 co-sponsors and was referred to the House Subcommittee on Research and Science Education, where related hearings were held. A companion bill (S. 1199) was introduced in the Senate by Senator Ron Wyden (D-OR). That bill currently has 4 co-sponsors and has been referred to the HELP Committee.

On October 24, 2007, Representative Dan Lipinski (D-IL-3rd) introduced the **Science Museum and National Laboratory Partnership Demonstration Act** (H.R. 3955), which would provide competitive grants for educational partnerships between science museums and national laboratories to: (1) increase the public understanding of the work done at the national labs; (2) develop exhibits and informal programs on physical sciences; and (3) increase the public understanding of STEM disciplines. The bill currently has 16 co-sponsors and has been referred to the House Science and Technology Committee’s Subcommittee on Energy and Environment for review. ASTC is generally supportive of the bill, and met with Representative Lipinski’s staff to explore possible improvements and future steps.

On May 1, 2008, Representative Bart Gordon (D-TN-6th) introduced the **National Nanotechnology Initiative Amendments Act** (H.R. 5940), which would authorize activities for support of nanotechnology research, development, and education by reauthorizing the National Nanotechnology Initiative. The bill currently has 31 co-sponsors and saw limited floor action in the House on June 4. ASTC submitted its thoughts on the bill to the House Science and Technology Committee and has joined other members of the STEM Education Coalition to express support for its passage.

On May 21, 2008, Representative Mike Honda (D-CA-15th) introduced the **Enhancing Science, Technology, Engineering, and Mathematics Education Act** (H.R. 6104), which would provide for the coordination of the nation’s science, technology, engineering, and mathematics education initiatives. The bill currently has 39 co-sponsors and has been referred to the House Science and Technology Committee’s Subcommittee on Research and Science Education for review. Before the bill was introduced, ASTC worked with Representative Honda’s staff on provisions related to informal education and has joined with other stakeholders to express support for the legislation. A companion bill (S. 6104) was introduced in the Senate by Senator Barack Obama (D-IL) on the same day. That version currently has 3 co-sponsors and has been referred to the Senate Committee on Health, Education, Labor, and Pensions for review.

It should be noted that the **No Child Left Behind Act** and the **Higher Education Act** may also see action during this session of Congress; both are due for reauthorization.