

**U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY**

**HEARING CHARTER**

*STEM Education: The Administration's Proposed Re-Organization*

**Tuesday, June 4, 2013  
2:00 p.m. – 4:00 p.m.  
2318 Rayburn House Office Building**

**Purpose**

On Tuesday, June 4, 2013, the House Committee on Science, Space, and Technology will hold a hearing to review the Administration's proposed consolidation and re-organization of federal science, technology, engineering, and mathematics (STEM) programs. With an eye toward COMPETES Act (P.L. 111-358) reauthorization of the National Science Foundation (NSF) and a review of the effectiveness and efficiency of interagency STEM education programs this hearing will provide an opportunity to evaluate the Administration's proposal and how it will affect federal STEM efforts across the Nation.

**Witnesses**

- **The Honorable John Holdren**, Director, Office of Science and Technology Policy (OSTP), Executive Office of the President
- **Dr. Joan Ferrini-Mundy**, Assistant Director, Directorate for Education and Human Resources, National Science Foundation (NSF)
- **Mr. Leland D. Melvin**, Associate Administrator for Education, National Aeronautics and Space Administration (NASA)

**Overview**

The Administration's FY14 budget request includes \$3.1 billion across the federal government for STEM education, a 6.7 percent increase over FY12 enacted levels. The request proposes a re-organization of STEM education programs into four key areas: K-12 instruction; undergraduate education; graduate fellowships; and education activities that typically take place outside the classroom, all with a focus on increasing participation and opportunities for individuals from groups historically underrepresented in STEM fields.

The re-organization proposed by the Administration identifies the U.S. Department of Education as the lead for K-12 instruction and the National Science Foundation (NSF) as the lead on undergraduate and graduate STEM education. The Smithsonian Institution would lead the Administration's work on informal education activities (those activities that take place outside the classroom).

The Administration’s proposal decreases the number of federal STEM programs from 226 to 112, with 114 programs either eliminated or consolidated into existing programs. The budget request grows the number of agencies with federal STEM programs from 13 to 14, to include the Smithsonian Institution.

**Table 1. Federal STEM Education Program Funding by Agency<sup>1</sup>**  
(budget authority in millions)

	FY 2012 Enacted	FY 2014 Request	Change FY12-14 Amount	Change FY12-14 Percent
Agriculture	88	85	-3	-3.7%
Commerce	41	36	-5	-12.7%
Defense	178	136	-42	-23.6%
Education	529	814	285	53.9%
Energy	47	33	-14	-29.9%
Health and Human Services	578	533	-45	-7.8%
Homeland Security	9	9	-1	-8.5%
Interior	3	3	0	-9.0%
Transportation	99	92	-8	-7.5%
Environmental Protection Agency	26	3	-22	-86.8%
NASA	149	100	-49	-32.9%
NSF	1,154	1,243	89	7.7%
Nuclear Regulatory Commission	16	1	-15	-95.5%
Smithsonian Institution	0	25	25	--
<b>Total STEM Education</b>	<b>2,918</b>	<b>3,112</b>	<b>195</b>	<b>6.7%</b>

STEM-related budgets are reduced between 3 and 86 percent among 11 agencies, including a nearly 33 percent cut at NASA. The Smithsonian Institution receives an initial \$25 million. The Department of Education and NSF experience the only STEM-related budget increases at nearly 54 percent and 8 percent respectively (see Table 1).

The proposal includes a request for \$1.24 billion for NSF as lead for the Administration’s work on undergraduate and graduate STEM education. This includes a new \$123 million Foundation-wide program, Catalyzing Advances in Undergraduate STEM Education (CAUSE). The request for NSF also includes over \$325 million for a National Graduate Research Fellowship program (to build on the current Graduate Research Fellowship (GRF) program); \$55 million for NSF Research Traineeships (building on the Integrative Graduate Education and Research Traineeship (IGERT) program); and over \$79 million to enhance Research Experiences for Undergraduates (REU) Sites and Supplements.<sup>2</sup>

The proposal includes a nearly 54 percent increase for STEM activities at the Department of Education. These activities include \$150 million for STEM Innovation Networks to help school districts build strategic partnerships with universities, government agencies, industry,

<sup>1</sup> White House Office of Science and Technology Policy, *Preparing a 21<sup>st</sup> Century Workforce*. April 10, 2013. [http://www.whitehouse.gov/sites/default/files/microsites/ostp/2014\\_R&Dbudget\\_STEM.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/2014_R&Dbudget_STEM.pdf)

<sup>2</sup> *FY14 NSF Budget Request to Congress*, p. Overview-5.

museums and other educational entities. The proposal also includes \$80 million to support evidence-based STEM teacher preparation programs.<sup>3</sup>

The request would reduce NASA's STEM education portfolio by nearly 1/3<sup>rd</sup> to \$100 million. This includes a \$16 million reduction in the NASA Space Grant program and a \$9 million reduction in the NASA Experimental Program to Stimulate Competitive Research (EPSCoR) program. The NASA STEM Education and Accountability programs, including the Minority University Research and Education Program (MUREP) and STEM Education and Accountability Projects (SEA) would be reduced by nearly \$20 million. Education activities within the Mission Directorates are zeroed out in all but the Space Technology Directorate, which would receive over \$15 million for fellowships.<sup>4</sup>

The 2010 COMPETES Act (P.L. 111-358) included a number of requirements for the review and coordination of federal STEM programs. The Act required the National Science and Technology Council, an interagency group led by the White House Office of Science and Technology Policy, to form a Committee on STEM (CoSTEM) to develop and implement a 5-year strategic plan. CoSTEM released an inventory of federal STEM programs in December 2011 and a progress report on its work towards a Strategic Plan in February 2012. The final Strategic Plan has not yet been released, although it was originally expected in early May as required by the Continuing Appropriations Act (P.L. 113-6) and may be released on or about May 31, 2013.

Since the Administration's STEM education reorganization proposal and budget request were released in April, the Administration conducted an additional review of programs targeted for consolidation. According to information received by the Committee staff on May 14th, 78 programs have been slated for consolidation with funding to be redirected outside the original funding agency (including 37 programs at NASA), 49 programs are slated for internal consolidation, and 110 programs remain in their original form or are new to the respective agencies.<sup>5</sup> This is a significant re-organization of STEM education programs across many different agencies.

Witnesses for today's hearing were asked to discuss the National Science and Technology Council's process for reviewing the STEM education portfolio across many different agencies and the role of CoSTEM in drafting the Administration's proposed re-organization. They were also asked to discuss how decisions were made about program consolidations and cuts. Finally, they were asked how the proposed re-organization affects STEM programs nationwide.

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<sup>3</sup> White House Office of Science and Technology Policy, *Preparing a 21<sup>st</sup> Century Workforce*. April 10, 2013. [http://www.whitehouse.gov/sites/default/files/microsites/ostp/2014\\_R&Dbudget\\_STEM.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/2014_R&Dbudget_STEM.pdf)

<sup>4</sup> *FY14 NASA Budget Request to Congress*, p. EDUC-1.

<sup>5</sup> FY2012 Inventory of STEM Programs, handed out at the OSTP and OMB staff briefing on the Administration's proposal.