

FY2014 President's Budget Request

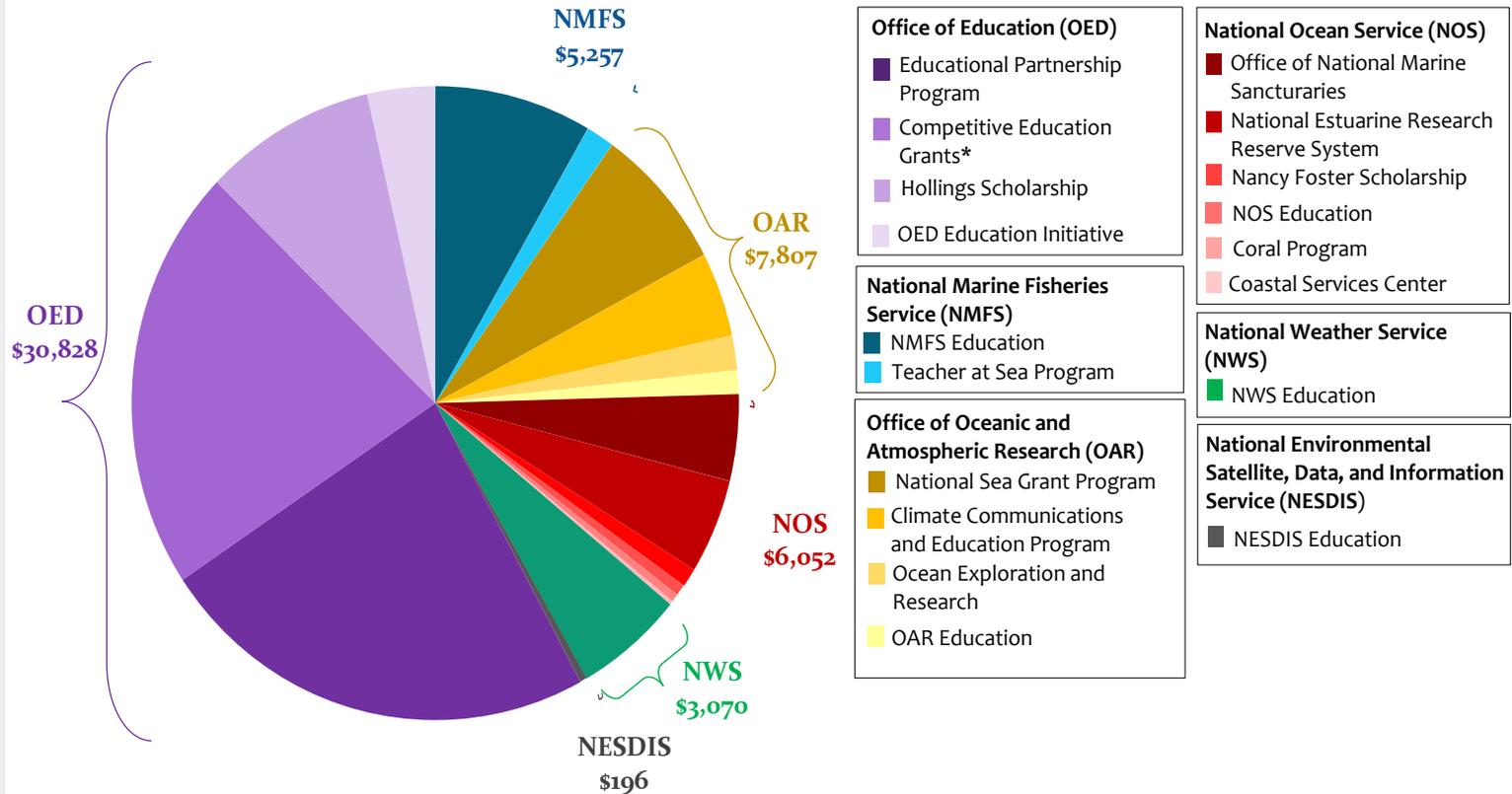
STEM Consolidation Plan Briefing for NOAA Educators

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FY 2012 Investment by Program

NOAA Education Investment by Program for FY 2012, in \$1,000s

Total Education Investment for FY 2011 = \$53.2 Million



*Includes \$980K for FY12 Great Lakes B-WET awards from EPA

FY 2012 Accomplishments

* **Support an environmentally literate public**

- * Over 350 institutions increase educational capacity through NOAA-funded interpretive/educational centers, exhibits or programs.
- * Over 74 million people visit museums, zoos, aquariums, and other informal education institutions hosting exhibits or programs.
- * Over 998,100 lifelong learners participate in informal education programs.
- * Over 168,600 preK-12 students participate in formal education programs.
- * Over 34,600 educators participate in professional development programs.
- * Over 12 million people visit NOAA Education websites that support a broad spectrum of educational activities and provide effective services and critical information to the Nation

* **Develop a diverse workforce**

- * Over 2,700 postsecondary students trained in NOAA-mission related sciences through higher education programs that prepare them for career paths at NOAA and in related organizations.
- * Over 570 postsecondary degrees in NOAA-related disciplines awarded to students who were supported in higher education programs.

STEM Education Reorganization Proposal

- * The Administration is proposing a comprehensive reorganization to facilitate a cohesive national strategy of STEM education programs to increase the impact of Federal investments in four areas:

1) Improve K-12 instruction	2) Reform undergraduate Education	4) Education activities that typically take place outside the classroom
3) Graduate Fellowships		
Department of Education	National Science Foundation	Smithsonian Institute

What will be terminated?

- * 114 Programs across 11 agencies will be consolidated or restructured as part of this initiative, a total of nearly \$180M.
- * Six NOAA education programs will be terminated in this proposal:
 - * Teacher at Sea: \$600
 - * National Sea Grant Education: \$4M
 - * Competitive Education Grants: \$3.1M
 - * Dr. Nancy Foster Scholarship Program: \$601K
 - * Ocean Exploration and Research Education: \$900K
 - * Bay Watershed Education and Training: \$5.5M

What will happen to the funds and initiatives?

- * Six NOAA programs will be terminated.
- * The funding for these programs will be redirected to the Dept. of Education, National Science Foundation, and the Smithsonian Institution to implement initiatives in the four core reform areas.
- * The Administration will ensure that all science mission agencies have input into the development and implementation of these initiatives so that they align with agency goals while improving STEM education at all levels in a streamlined way.

What is the goal of this proposal?

- * The Administration believes that a significant reorganization is necessary to greatly improve STEM education.
- * Maintaining a large number of small STEM programs makes it difficult to rigorously evaluate core functions or drive national strategies for targeting resources towards national needs.

Was NOAA consulted on this plan?

- * For the past two years, NOAA, along with all federal science mission agencies, has been participating in the Committee on STEM (CoSTEM).
- * The CoSTEM effort is called for by the America COMPETES Reauthorization Act of 2010.
- * The CoSTEM was tasked to create an inventory of federal STEM education activities and develop a 5-year strategic STEM education plan (expected in spring 2013).
- * The Administration proposal builds on the work of the CoSTEM.

Why were some programs not terminated?

- * The two STEM education programs that remain in NOAA in FY14 are the Educational Partnership with Minority Serving Institutions and the Hollings Undergraduate Scholarship Program.
- * The Administration excluded programs that directly support Minority Serving Institutions from its proposal.
- * The Hollings program was excluded because it did not fit well into the NSF consolidated portfolio for undergraduate reform.

What will happen to currently funded, multi-year projects?

- * Grant funding for FY14 will be determined by Congressional appropriations levels.

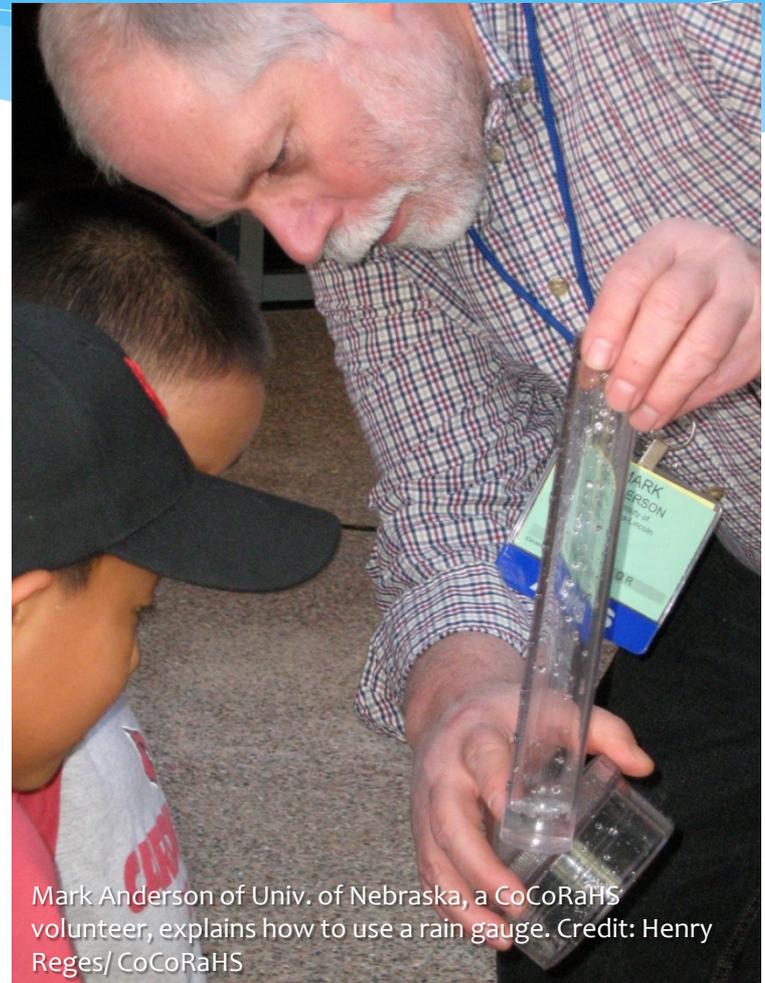
Opportunity 1: Leverage NOAA Assets

- * Use NOAA's unique assets/role to engage, excite, and educate youth, communities, and all life-long learners on NOAA mission-related issues
 - * Special places
 - * Data
 - * Ships and aircrafts
 - * Laboratories, scientists, and other NOAA personnel



Opportunity 2: Citizen Science

- * NOAA has a rich tradition of supporting citizen science
 - * Improving weather forecasting
 - * Pinpointing whale migration patterns
 - * Identifying harmful algal blooms
- * Citizen science programs empower our Nation's populace to participate in and contribute to authentic science investigations in an impactful way
 - * GLOBE Program
 - * CoCoRaHS



Mark Anderson of Univ. of Nebraska, a CoCoRaHS volunteer, explains how to use a rain gauge. Credit: Henry Reges/ CoCoRaHS

Opportunity 3: Next Generation Science Standards

July 2011
National Research Council
released framework

Framework

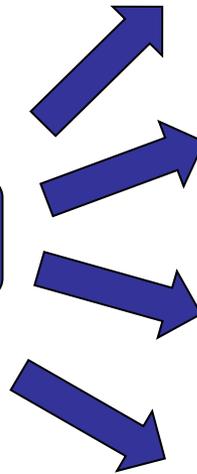
- Scientific and engineering practices
- Crosscutting concepts
- Disciplinary core ideas (Earth and Space System Science)



March 2013
Target release of
final standards

Standards

- 26 states leading
- Nat'l Research Council , AAAS, Nat'l Science Teachers Association, Achieve effort



Assessments

Curricula

Instruction

Teacher development

Opportunity 4: Environmental Literacy

- * 44 states have environmental literacy plans
- * Opportunity to utilize NOAA content, products, and infrastructure to assist states with the implementation of such plans (Chesapeake Bay example)
- * Support State efforts to infuse environmental education during NGSS implementation, as appropriate



Opportunity 5: Excited and Engaged Youth



Questions?