

(1) carry out and support research based programs and activities designed to increase student interest and participation in STEM;

(2) improve public literacy in STEM;

(3) employ proven strategies and methods for improving student learning and teaching in STEM;

(4) provide curriculum support materials and other resources that—

(A) are designed to be integrated with comprehensive STEM education;

(B) are aligned with national science education standards; and

(C) promote the adoption and implementation of high-quality education practices that build toward college and career-readiness; and

(5) create and support opportunities for enhanced and ongoing professional development for teachers using best practices that improves the STEM content and knowledge of the teachers, including through programs linking STEM teachers with STEM educators at the higher education level.

(c) NOAA science education plan

The Administrator, appropriate National Oceanic and Atmospheric Administration programs, ocean atmospheric science and education experts, and interested members of the public shall maintain a science education plan setting forth education goals and strategies for the Administration, as well as programmatic actions to carry out such goals and priorities over the next 20 years, and evaluate and update such plan every 5 years.

(d) Construction

Nothing in this section may be construed to affect the application of section 1232a of title 20 or sections 794 and 794d of title 29.

(e) STEM defined

In this section, the term “STEM” means the academic and professional disciplines of science, technology, engineering, and mathematics.

(Pub. L. 110–69, title IV, § 4002, Aug. 9, 2007, 121 Stat. 600; Pub. L. 111–358, title III, § 302, Jan. 4, 2011, 124 Stat. 3997.)

AMENDMENTS

2011—Subsec. (a). Pub. L. 111–358, § 302(1), substituted “agency, with consideration given to the goal of promoting the participation of individuals from under-represented groups in STEM fields and in promoting the acquisition and retention of highly qualified and motivated young scientists to complement and supplement workforce needs.” for “the agency.”

Subsec. (b). Pub. L. 111–358, § 302(3), added subsec. (b). Former subsec. (b) redesignated (c).

Subsec. (c). Pub. L. 111–358, § 302(4), substituted “maintain” for “develop”.

Pub. L. 111–358, § 302(2), redesignated subsec. (b) as (c). Former subsec. (c) redesignated (d).

Subsec. (d). Pub. L. 111–358, § 302(2), redesignated subsec. (c) as (d).

Subsec. (e). Pub. L. 111–358, § 302(5), added subsec. (e).

§ 893b. NOAA’s contribution to innovation

(a) Participation in interagency activities

The National Oceanic and Atmospheric Administration shall be a full participant in any

interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific research and development and the promotion of science, technology, engineering, and mathematics education, consistent with the agency mission, including authorized activities.

(b) Historic foundation

In order to carry out the participation described in subsection (a), the Administrator of the National Oceanic and Atmospheric Administration shall build on the historic role of the National Oceanic and Atmospheric Administration in stimulating excellence in the advancement of ocean and atmospheric science and engineering disciplines and in providing opportunities and incentives for the pursuit of academic studies in science, technology, engineering, and mathematics.

(Pub. L. 110–69, title IV, § 4003, Aug. 9, 2007, 121 Stat. 600.)

§ 893c. Workforce study

(a) In general

The Secretary of Commerce, in cooperation with the Secretary of Education, shall request the National Academy of Sciences to conduct a study on the scientific workforce in the areas of oceanic and atmospheric research and development. The study shall investigate—

(1) whether there is a shortage in the number of individuals with advanced degrees in oceanic and atmospheric sciences who have the ability to conduct high quality scientific research in physical and chemical oceanography, meteorology, and atmospheric modeling, and related fields, for government, non-profit, and private sector entities;

(2) what Federal programs are available to help facilitate the education of students hoping to pursue these degrees;

(3) barriers to transitioning highly qualified oceanic and atmospheric scientists into Federal civil service scientist career tracks;

(4) what institutions of higher education, the private sector, and the Congress could do to increase the number of individuals with such post baccalaureate degrees;

(5) the impact of an aging Federal scientist workforce on the ability of Federal agencies to conduct high quality scientific research; and

(6) what actions the Federal government can take to assist the transition of highly qualified scientists into Federal career scientist positions and ensure that the experiences of retiring Federal scientists are adequately documented and transferred prior to retirement from Federal service.

(b) Coordination

The Secretary of Commerce and the Secretary of Education shall consult with the heads of other Federal agencies and departments with oceanic and atmospheric expertise or authority in preparing the specifications for the study.

(c) Report

No later than 18 months after January 4, 2011, the Secretary of Commerce and the Secretary of Education shall transmit a joint report to each