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113TH CONGRESS
1ST SESSION

S. 1129

To assist coordination among science, technology, engineering, and mathematics efforts in the States, to strengthen the capacity of elementary schools, middle schools, and secondary schools to prepare students in science, technology, engineering, and mathematics, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 11, 2013

Mr. UDALL of New Mexico (for himself and Mr. HEINRICH) introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

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A BILL

To assist coordination among science, technology, engineering, and mathematics efforts in the States, to strengthen the capacity of elementary schools, middle schools, and secondary schools to prepare students in science, technology, engineering, and mathematics, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''STEM Support for Teachers in Education and Mentoring (STEM) Act'' or the ''STEM^2 Act''.

SEC. 2. STEM EDUCATION PLANNING AND TRAINING.

(a) IN GENERAL.—Title II of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6601 et seq.) is amended by adding at the end the following:

''PART E—STEM EDUCATION PLANNING AND TRAINING

''SEC. 2501. DEFINITIONS.

''In this part:

''(1) INDIAN TRIBE; TRIBAL ORGANIZATION.—The terms 'Indian tribe' and 'tribal organization' have the meanings given those terms in section 4 of the Indian Self-Determination and Education Assistance Act.

''(2) STEM.—The term 'STEM' means science, technology, engineering, and mathematics.

''SEC. 2502. PLANNING GRANTS.

''(a) PURPOSE.—The purpose of this section is to address the lack of coordination among STEM education efforts in the States.

''(b) DEFINITION OF ELIGIBLE ENTITY.—In this section, the term 'eligible entity' means a State, Indian tribe, tribal organization, nonprofit organization, or institution

of higher education that identifies a coalition of related entities to participate in the grant application process under this section and subsequent STEM network activities funded with a grant awarded under this section.

''(c) GRANTS AUTHORIZED.—

''(1) IN GENERAL.—From amounts made available to carry out this section, the Secretary shall carry out a program of awarding, on a competitive basis, planning grants to eligible entities to enable the eligible entities to—

''(A) develop effective State or tribal STEM networks for communication and collaboration that include school teachers, institutions of higher education, nonprofit organizations, businesses, Federal, State, and local governments, and any other relevant entities; and

''(B) through such State STEM networks, identify future STEM skills needed for STEM and non-STEM occupations.

''(2) PROPORTIONALITY.—In awarding grants under this section, the Secretary shall, to the extent practicable, ensure a distribution of grant funds focused on high-need and high-poverty eligible entities.

''(d) APPLICATION.—An eligible entity desiring a grant under this section shall submit an application to the

Secretary at such time, in such manner, and containing such information as the Secretary may require.

''(e) REPORTS.—

''(1) REPORTS TO THE SECRETARY.—An eligible entity receiving a grant under this section shall submit to the Secretary an annual report describing the progress made on the grant.

''(2) REPORTS TO CONGRESS.—Not later than 3 years after the date of enactment of the STEM Support for Teachers in Education and Mentoring (STEM) Act, and every 3 years thereafter, the Secretary shall submit a report to Congress regarding the program supported under this section.

''SEC. 2503. TRAINING PROGRAM GRANTS.

''(a) PURPOSE.—The purpose of this section is to strengthen the capacity of preservice and existing teachers, elementary schools, middle schools, and secondary schools to use proven methods, including inquiry or project-based learning, to inspire and prepare students for STEM careers and build STEM literacy.

''(b) DEFINITION OF ELIGIBLE ENTITY.—In this section, the term 'eligible entity' means a State, Indian tribe, tribal organization, local educational agency, institution of higher education, or nonprofit organization.

''(c) GRANTS AUTHORIZED.—

''(1) IN GENERAL.—From amounts made available to carry out this section, the Secretary shall carry out a program of awarding grants, on a competitive basis, to eligible entities to enable the eligible entities to develop, carry out, and evaluate training programs for STEM education—

''(A) in elementary schools, middle schools, and secondary schools for existing teachers; and

''(B) in postsecondary schools for preservice teachers.

''(2) PROPORTIONALITY.—In awarding grants under this section, the Secretary shall, to the extent practicable, ensure an equitable distribution—

''(A) between eligible entities serving urban areas and eligible entities serving rural areas; and

''(B) of grant funds focused on high-need and high-poverty eligible entities.

''(d) APPLICATION.—An eligible entity desiring a grant under this section shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require. Such application shall include—

''(1) a description of how the eligible entity will monitor and evaluate the effectiveness of the train-

ing program, including how the eligible entity plans to measure the impact of the training on—

"(A) teachers who attended the training after the teachers return to the classroom; or

"(B) preservice teachers; and

"(2) any other information the Secretary determines appropriate.

"(e) USE OF FUNDS.—An eligible entity receiving a grant under this section shall use grant funds to carry out a training program, using best practice models (including inquiry and project-based models) and through summer institutes or other professional development enrichment programs, that provides professional development regarding STEM education to existing and preservice STEM teachers (including STEM teachers who are master teachers or have otherwise demonstrated mastery of STEM teaching) and administrators who are employed as teachers and administrators, respectively, as of the time of the program.

"(f) REPORTS.—

"(1) REPORTS TO THE SECRETARY.—An eligible entity receiving a grant under this section shall submit to the Secretary an annual report that describes the progress made on the grant and includes

the results from the evaluation described in the application under subsection (d).

''(2) REPORTS TO CONGRESS.—Not later than 3 years after the date of enactment of this part, and every 3 years thereafter, the Secretary shall submit a report to Congress regarding the program supported under this section.

''SEC. 2504. ACADEMIC STANDARDS GRANTS.

''(a) PURPOSE.—The purpose of this section is to strengthen the capacity of States to implement new mathematics and science academic standards.

''(b) DEFINITION OF ELIGIBLE ENTITY.—In this section, the term 'eligible entity' means a State, Indian tribe, tribal organization, local educational agency, public charter school, institution of higher education, or nonprofit organization.

''(c) GRANTS AUTHORIZED.—

''(1) IN GENERAL.—From amounts made available to carry out this section, the Secretary shall award grants, on a competitive basis, to eligible entities to enable the eligible entities to support curriculum development, assessments, or related activities that would enable States to adopt new mathematics and science academic standards.

''(2) PROPORTIONALITY.—In awarding grants under this section, the Secretary shall, to the extent practicable, ensure a distribution of grant funds focused on high-need and high-poverty eligible entities.

''(d) APPLICATION.—An eligible entity desiring a grant under this section shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require. Such application shall include—

''(1) a description of how the eligible entity will monitor and evaluate the effectiveness of curriculum development, assessments, or related activities that would enable States to adopt new mathematics and science academic standards; and

''(2) any other information the Secretary determines appropriate.

''(e) USE OF FUNDS.—An eligible entity receiving a grant under this section shall use grant funds to carry out curriculum development, assessments, or related activities that would enable States to adopt new mathematics and science academic standards and provide professional development regarding STEM education standards and national tests for administrators who are employed as teachers and administrators, respectively, as of the time of the program.

''(f) REPORTS TO THE SECRETARY.—An eligible entity receiving a grant under this section shall submit to the Secretary an annual report that describes the progress made on the grant and includes the results from the evaluation described in the application under subsection (d).

''SEC. 2505. NATIONAL PANEL.

''(a) IN GENERAL.—The Secretary shall establish a national panel to review, evaluate, and identify—

''(1) rigorous kindergarten through grade 12 STEM curricula models, including computer or web-based simulation education programs, kinesthetic learning, and inquiry- or project-based learning techniques; and

''(2) best practices with respect to STEM curricula.

''(b) MEMBERS.—The Secretary shall determine the membership of the national panel described in subsection (a), which shall be comprised of individuals who have the wisdom and experience to identify and recommend the most effective STEM curricula models, such as—

''(1) representatives of technology industries and business;

''(2) teachers and school administrators;

''(3) representatives of nonprofit organizations and community organizations;

''(4) faculty members of institutions of higher education;

''(5) research specialists and curricula specialists;

''(6) at least 1 rural education expert;

''(7) at least 1 high school or college student to provide a youth perspective; and

''(8) other individuals, as determined appropriate by the Secretary.

''(c) REPORTS.—The panel shall prepare reports and recommendations regarding the panel's findings as requested by the Secretary.

''SEC. 2506. AUTHORIZATION OF APPROPRIATIONS.

''There is authorized to be appropriated to carry out this part such sums as may be necessary for fiscal year 2014 and each of the 5 succeeding fiscal years.''.

(b) TABLE OF CONTENTS.—The table of contents in section 2 of the Elementary and Secondary Education Act of 1965 is amended by inserting after the item relating to section 2441 the following:

''PART E—STEM EDUCATION PLANNING AND TRAINING

''Sec. 2501. Definitions.
''Sec. 2502. Planning grants.
''Sec. 2503. Training program grants.
''Sec. 2504. Academic standards grants.
''Sec. 2505. National panel.
''Sec. 2506. Authorization of appropriations.''.

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