112TH CONGRESS
1ST SESSION

S. 716

To establish within the Department of Education the Innovation Inspiration school grant program, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 4, 2011

Mrs. SHAHEEN (for herself, Mr. BEGICH, Mr. KERRY, Mr. FRANKEN, Ms. KLOBUCHAR, Mr. COONS, and Mr. REID) 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 establish within the Department of Education the Innovation Inspiration school grant program, 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 ''Innovation Inspiration School Grant Program Act''.

SEC. 2. FINDINGS.

Congress makes the following findings:

(1) According to the National Science Board's 2010 Science and Engineering Indicators, only 5

percent of American college graduates major in engineering. In Asia, about 20 percent of all baccalaureate degrees are in engineering and in China about 33 percent of baccalaureate degrees are in engineering.

(2) Although 4th graders in the United States score well against international competition, students in the United States fall near the bottom or dead last by 12th grade in mathematics and science, respectively.

(3) Admissions requirements for undergraduate engineering schools include a solid background in mathematics (algebra, geometry, trigonometry, and calculus) and science (biology, chemistry, and physics), in addition to courses in English, social studies, and humanities.

(4) According to the Bureau of Labor Statistics, overall engineering employment is expected to grow by 11 percent from 2008 through 2018, and, as a group, engineers earn some of the highest average starting salaries among individuals holding baccalaureate degrees.

(5) According to the Department of Labor, engineers should be creative, inquisitive, analytical, and detail-oriented. Engineers should be able to

work as part of a team and to communicate well, both orally and in writing. Communication abilities are becoming increasingly important as engineers interact more frequently with specialists in a wide range of fields outside engineering.

(6) Exposure to project- and problem-based learning, in a competitive team environment, gives 9th through 12th graders the skills that they need to be successful in engineering programs of study and engineering careers.

(7) According to Brandeis University's Center for Youth and Communities, participants in FIRST Robotics (a nonprofit organization that inspires young people to be science and technology leaders by engaging the young people in mentor-based programs)—

(A) are more likely than nonparticipants to attend an institution of higher education on a full-time basis (88 percent versus 53 percent);

(B) are nearly 2 times as likely to major in a science or engineering field; and

(C) are more than 3 times as likely to have majored specifically in engineering.

SEC. 3. DEFINITIONS.

In this Act:

(1) LOCAL EDUCATIONAL AGENCY.—The term ''local educational agency'' has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(2) LOW-INCOME STUDENT.—The term ''low-income student'' means a student who is eligible for free or reduced price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.).

(3) SECONDARY SCHOOL.—The term ''secondary school'' has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(4) SECRETARY.—The term ''Secretary'' means the Secretary of Education.

(5) STEM.—The term ''STEM'' means science, technology, engineering (including robotics), or mathematics.

(6) NON-TRADITIONAL STEM TEACHING METHOD.—The term ''non-traditional STEM teaching method'' means a STEM education method or strategy such as incorporating self-directed student learning, inquiry-based learning, cooperative learning in small groups, collaboration with mentors in the field

of study, and participation in STEM-related competitions.

SEC. 4. INNOVATIVE INSPIRATION SCHOOL GRANT PROGRAM.

(a) GOALS OF PROGRAM.—The goals of the Innovation Inspiration grant program are—

(1) to provide opportunities for local educational agencies to support non-traditional STEM education teaching methods;

(2) to support the participation of students in nonprofit STEM competitions;

(3) to foster innovation and broaden interest in, and access to, careers in the STEM fields by investing in programs supported by educators and professional mentors who receive hands-on training and ongoing communications that strengthen the interactions of the educators and mentors with—

(A) students who are involved in STEM activities; and

(B) other students in the STEM classrooms and communities of such educators and mentors; and

(4) to encourage collaboration among students, engineers, and professional mentors.

(b) PROGRAM AUTHORIZED.—

(1) IN GENERAL.—The Secretary is authorized to award grants, on a competitive basis, to local educational agencies to enable the local educational agencies—

(A) to promote STEM in secondary schools;

(B) to support the participation of secondary school students in non-traditional STEM teaching methods; and

(C) to broaden secondary school students' access to careers in STEM.

(2) DURATION.—The Secretary shall award each grant under this Act for a period of not more than 5 years.

(3) AMOUNTS.—The Secretary shall award a grant under this Act in an amount that is sufficient to carry out the goals of this Act.

(c) APPLICATION.—

(1) IN GENERAL.—Each local educational agency desiring a grant under this Act shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may reasonably require.

(2) CONTENTS.—The application shall, at a minimum, include a description of how the local educational agency will—

(A) carry out STEM teaching programs that will use a non-traditional STEM teaching method;

(B) identify and recruit partners and mentors—

(i) to help carry out the programs described in subparagraph (A); and

(ii) to assist students who participate in such programs, including through technology-supported means;

(C) support educators who lead such programs, and participants in such programs, through stipends or other incentives;

(D) recruit young women and individuals from populations historically underrepresented in the STEM fields to participate in such programs;

(E) identify public and private partners that can support such programs with cash or in-kind contributions;

(F) plan for sustaining such programs financially beyond the grant period; and

(G) evaluate the grant project and the results of the grant project among participating students, including—

(i) comparing students who participate in the grant project to similar students who do not participate; and

(ii) evaluating—

(I) secondary school graduation rates;

(II) rates of attendance at institutions of higher education;

(III) the number of students taking advanced STEM related secondary school classes; and

(IV) the ability of students participating in the grant project to partner with professional mentors.

(3) PREFERENCE.—In awarding grants under this section, the Secretary shall give priority to applications from local educational agencies that propose to carry out activities that target—

(A) a rural or urban school;

(B) a low-performing school or local educational agency; or

(C) a local educational agency or school that serves low-income students.

(d) USES OF FUNDS.—

(1) IN GENERAL.—Each local educational agency that receives a grant under this Act shall use the grant funds for any of the following:

(A) STEM EDUCATION AND CAREER ACTIVITIES.—Promotion of STEM education and career activities.

(B) PURCHASE OF PARTS.—The purchase of parts and supplies needed to support participation in non-traditional STEM teaching methods.

(C) TEACHER INCENTIVES AND STIPENDS.—Incentives and stipends for teachers involved in non-traditional STEM teaching methods outside of their regular teaching duties.

(D) SUPPORT AND EXPENSES.—Support and expenses for student participation in regional and national nonprofit STEM competitions.

(E) ADDITIONAL MATERIALS AND SUPPORT.—Additional materials and support, such as equipment, facility use, technology,

broadband access, and other expenses, directly associated with non-traditional STEM teaching and mentoring.

(F) EVALUATION.—Carrying out the evaluation described in subsection (c)(2)(G).

(G) OTHER ACTIVITIES.—Carrying out other activities that are related to the goals of the grant program, as described in subsection (a).

(2) PROHIBITION.—A local educational agency shall not use grant funds awarded under this Act to participate in any STEM competition that is not a nonprofit competition.

(3) ADMINISTRATIVE COSTS.—Each eligible entity that receives a grant under this Act may use not more than 2 percent of the grant funds for costs related to the administration of the grant project.

(e) MATCHING REQUIREMENT.—

(1) IN GENERAL.—Subject to paragraph (2), each local educational agency that receives a grant under this Act shall secure, toward the cost of the activities assisted under the grant, from non-Federal sources, an amount equal to 50 percent of the grant. The non-Federal contribution may be provided in cash or in kind.

(2) WAIVER.—The Secretary may waive all or part of the matching requirement described in paragraph (1) for a local educational agency if the Secretary determines that applying the matching requirement would result in a serious financial hardship or a financial inability to carry out the goals of the grant project.

(f) SUPPLEMENT, NOT SUPPLANT.—Grant funds provided to a local educational agency under this Act shall be used to supplement, and not supplant, funds that would otherwise be used for activities authorized under this Act.

(g) EVALUATION.—The Secretary shall establish an evaluation program to determine the efficacy of the grant program established by this Act, which shall include comparing students participating in a grant project funded under this Act to similar students who do not so participate, in order to assess the impact of student participation on—

(1) what courses a student takes in the future; and

(2) a student's postsecondary study.

(h) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to carry out this Act such sums as may

be necessary for each of the fiscal years 2012 through 2016.

(2) LIMITATIONS.—Of the amounts appropriated under paragraph (1) for a fiscal year, not more than 2 percent shall be used for the evaluation described under subsection (g).

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