

113TH CONGRESS
2D SESSION

H. R. 4828

To amend the Elementary and Secondary Education Act of 1965 to award grants to establish STEM Innovation Networks.

IN THE HOUSE OF REPRESENTATIVES

JUNE 10, 2014

Mr. GARCIA introduced the following bill; which was referred to the Committee on Education and the Workforce

A BILL

To amend the Elementary and Secondary Education Act of 1965 to award grants to establish STEM Innovation Networks.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Innovative STEM Net-
5 works Act” or the “I-STEM Act”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

8 (1) According to the Council on Foreign Rela-
9 tions, 60 percent of U.S. employers are having dif-

1 faculties finding qualified workers to fill vacancies at
2 their companies.

3 (2) Office of Science and Technology and Policy
4 states that “STEM occupations will grow 1.7 times
5 faster than non-STEM occupations over the period
6 from 2008 through 2018”.

7 (3) According to the National Governors Asso-
8 ciation Center for Best Practices, at all levels of
9 educational attainment, STEM job holders earn 11
10 percent higher wages compared with their same-de-
11 gree counterparts in other jobs.

12 (4) The National Governors Association Center
13 for Best Practices also states that “The top 10
14 bachelor-degree majors with the highest median
15 earnings are all in STEM fields”.

16 (5) According to the Harris STEM Survey, al-
17 though most parents of K–12 students (93 percent)
18 believe that STEM education should be a priority in
19 the U.S., only half (49 percent) agreed that it actu-
20 ally is a top priority for this country.

21 (6) The Harris STEM Survey also states that
22 “Only one in five STEM college students felt that
23 their K–12 education prepared them extremely well
24 for their college courses in STEM.”.

1 **SEC. 3. STEM INNOVATION NETWORKS.**

2 Title II of the Elementary and Secondary Education
3 Act of 1965 (20 U.S.C. 6601 et seq.) is amended by add-
4 ing at the end the following new part:

5 **“PART E—STEM INNOVATION NETWORKS**

6 **“SEC. 2501. PURPOSE.**

7 “It is the purpose of this part to authorize a program
8 to provide competitive grants to State educational agencies
9 or local educational agencies to establish STEM innova-
10 tion networks in partnership with institutions of higher
11 education, nonprofit organizations, other public agencies,
12 or businesses to increase the number of students who are
13 effectively prepared for postsecondary education and ca-
14 reers in STEM fields by—

15 “(1) working with States and local educational
16 agencies to develop comprehensive plans for identi-
17 fying, developing, testing, and implementing evi-
18 dence-based practices to provide rich STEM learning
19 opportunities for students; and

20 “(2) supporting the implementation of such
21 plans by employing of wide range of strategies, de-
22 pending on local needs, including the recruitment,
23 preparation, and professional development of effec-
24 tive STEM educators, the development and testing
25 of teaching and learning models that enable students
26 to successfully meet STEM-focused State academic

1 standards developed under section 1111, and stu-
2 dent engagement in STEM subjects.

3 **“SEC. 2502. GRANT PROGRAM.**

4 “(a) IN GENERAL.—From the amounts appropriated
5 under subsection (i), the Secretary shall award grants, on
6 a competitive basis, to eligible entities to establish STEM
7 Innovation networks to increase student achievement in
8 STEM subjects and increase the number of students who
9 are effectively prepared for postsecondary education and
10 careers in STEM fields.

11 “(b) NUMBER OF GRANTS.—The Secretary shall
12 award not less than 5 and not more than 10 grants under
13 this section for each fiscal year.

14 “(c) PRIORITY.—In awarding grants under this sec-
15 tion, the Secretary shall give priority to eligible entities
16 that include a high-need local educational agency or a
17 State educational agency that serves a high-need local
18 educational agency.

19 “(d) APPLICATION.—

20 “(1) IN GENERAL.—An eligible entity that de-
21 sires to receive a grant under this section shall sub-
22 mit to the Secretary an application at such time, in
23 such manner, and containing such information as
24 the Secretary may require.

1 “(2) CONTENTS.—An application submitted by
2 an eligible entity under paragraph (1) shall include
3 a description of the activities that will be carried out
4 with the grant received under this section, and how
5 such activities will address the needs identified by
6 the eligible entity, with respect to preparing students
7 for postsecondary education and careers in STEM
8 fields, including—

9 “(A) a description of the data for elemen-
10 tary schools and secondary schools in the State
11 or States served by the eligible entity on—

12 “(i) student achievement in the
13 STEM subjects;

14 “(ii) teacher evaluation results or rat-
15 ings in STEM subjects; and

16 “(iii) student access to STEM sub-
17 jects, especially for students enrolled in
18 high-need schools or residing in high-need
19 communities;

20 “(B) a review of the workforce needs in
21 the State or States served by the eligible entity
22 in occupations and sectors that require knowl-
23 edge or training in STEM subjects;

1 “(C) based on a review of the data de-
2 scribed in subparagraph (A) and the workforce
3 needs under subparagraph (B)—

4 “(i) an identification of the STEM
5 subjects that the eligible entity will address
6 with the grant funds; and

7 “(ii) a description of the activities the
8 eligible entity will carry out to improve in-
9 struction in such STEM subjects using evi-
10 dence-based programs of instruction that
11 are aligned with State academic standards
12 and assessments developed under section
13 1111;

14 “(D) a description of how the activities
15 carried out with the grant funds will integrate
16 with informal STEM programs;

17 “(E) results from an analysis carried out
18 before the submission of such application by the
19 eligible entity or a member of the eligible entity
20 of STEM subject education quality and out-
21 comes in the State or States served by the eligi-
22 ble entity, if available;

23 “(F) whether the eligible entity will pro-
24 vide matching funds from private sources
25 (which are not Federal, State, or local sources)

1 to carry out the activities under subsection (e);
2 and

3 “(G) a description of how the activities
4 carried out with the grant funds will be coordi-
5 nated with other Federal, State, and local pro-
6 grams and activities relating to STEM, and
7 how the activities carried out with the grant
8 funds may improve or benefit such other pro-
9 grams and activities.

10 “(e) USES OF FUNDS.—

11 “(1) REQUIRED ACTIVITIES.—An eligible entity
12 shall use a grant received under this section to es-
13 tablish and maintain STEM innovation networks to
14 effectively prepare students for postsecondary edu-
15 cation and careers in STEM fields by carrying out
16 the following:

17 “(A) Increasing student awareness about
18 STEM career pathways that reflect the STEM
19 workforce needs identified under subsection
20 (d)(2)(B).

21 “(B) Developing statewide plans that inte-
22 grate and align workforce needs with education
23 and training programs that prepare students
24 for college degree pathways and careers in
25 STEM fields, which result in 2-year degrees,

1 trade certifications, or other measures of
2 STEM-specific workforce skills.

3 “(C) Identifying points of weakness and
4 strength of State STEM education efforts,
5 prioritizing strategies for addressing problem
6 areas with respect to such efforts, and commu-
7 nicating the needs of the State or States served
8 by the eligible entity.

9 “(2) AUTHORIZED ACTIVITIES.—An eligible en-
10 tity may use a grant received under this section to
11 carry out the following:

12 “(A) Promoting and developing in school
13 and out-of-school curricular tools and profes-
14 sional development for STEM educators at the
15 elementary school and secondary school levels.

16 “(B) Providing induction and mentoring
17 services to new teachers in STEM subjects that
18 the eligible entity identifies under subsection
19 (d)(2)(C).

20 “(C) Promoting and developing rigorous
21 undergraduate preservice teacher programs at
22 institutions of higher education that emphasize
23 STEM content.

24 “(D) Supporting the participation of ele-
25 mentary school and secondary school students

1 (especially students enrolled in high-need
2 schools or residing in high-need communities)
3 in competitions, out-of-school activities, and
4 field experiences related to STEM subjects.

5 “(E) Assisting in the implementation and
6 assessment of rigorous career and college ready
7 standards in STEM education for students in
8 prekindergarten through grade 12.

9 “(F) Developing STEM-related education
10 and workforce training programs in secondary
11 schools and community colleges to reflect the
12 needs of the local community.

13 “(f) SUPPLEMENT, NOT SUPPLANT.—Funds received
14 under this part shall be used to supplement, and not sup-
15 plant, funds that would otherwise be used for activities
16 authorized under this part.

17 “(g) MAINTENANCE OF EFFORT.—A State that re-
18 ceives funds under this part for a fiscal year shall main-
19 tain the fiscal effort provided by the State for the STEM
20 subjects supported by the funds under this part at a level
21 equal to or greater than the level of such fiscal effort for
22 the preceding fiscal year.

23 “(h) DEFINITIONS.—

24 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-
25 tity’ means 1 or more State educational agencies or

1 local educational agencies in partnership with 1 or
2 more of the following entities that have a dem-
3 onstrated record of success in improving student
4 achievement in STEM subjects:

5 “(A) A nonprofit organization.

6 “(B) A business.

7 “(C) A STEM faculty or teacher training
8 department of an institution of higher edu-
9 cation.

10 “(D) An educational service agency.

11 “(E) Another entity.

12 “(2) COMMUNITY COLLEGE.—The term ‘com-
13 munity college’ has the meaning given the term in
14 section 3301.

15 “(3) HIGH-NEED COMMUNITY.—The term
16 ‘high-need community’ has the meaning given the
17 term in section 2151(e)(9).

18 “(4) HIGH-NEED LOCAL EDUCATIONAL AGEN-
19 CY.—The term ‘high-need local educational agency’
20 has the meaning given the term in section 2102.

21 “(5) HIGH-NEED SCHOOL.—The term ‘high-
22 need school’ has the meaning given the term in sec-
23 tion 2312.

24 “(6) INFORMAL STEM PROGRAM.—The term
25 ‘informal STEM program’ means a STEM program

1 that takes place outside of a standard school setting,
 2 and may include an afterschool, out-of-school, sum-
 3 mer, or other STEM education program that takes
 4 place outside of the regular school day in a school
 5 setting or other learning environment.

6 “(7) STEM.—The term ‘STEM’ means science,
 7 technology, engineering, or mathematics, including
 8 other academic subjects or fields—

9 “(A) that build on those disciplines, such
 10 as computer science; or

11 “(B) that a State identifies as important
 12 to the workforce of the State.

13 “(i) AUTHORIZATION OF APPROPRIATIONS.—There
 14 are authorized to be appropriated \$150,000,000 for fiscal
 15 year 2015 and each succeeding fiscal year.”.

16 **SEC. 4. CONFORMING AMENDMENT.**

17 The table of contents in section 2 of the Elementary
 18 and Secondary Education Act of 1965 (20 U.S.C. 6301
 19 et seq.) is amended by inserting after the item relating
 20 to part D of title II the following:

“PART E—STEM INNOVATION NETWORKS

“Sec. 2501. Purpose.

“Sec. 2502. Grant program.”.

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