

113TH CONGRESS
1ST SESSION

S. 1796

To increase the participation of women, girls, and underrepresented minorities in STEM fields, to encourage and support students from all economic backgrounds to pursue STEM career opportunities, and for other purposes.

IN THE SENATE OF THE UNITED STATES

DECEMBER 10, 2013

Mrs. GILLIBRAND introduced the following bill; which was read twice and referred to the Committee on Health, Education, Labor, and Pensions

A BILL

To increase the participation of women, girls, and underrepresented minorities in STEM fields, to encourage and support students from all economic backgrounds to pursue STEM career opportunities, and for other purposes.

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 “STEM Gateways Act”.

5 **SEC. 2. FINDINGS.**

6 Congress finds the following:

7 (1) According to a 2013 Census Bureau study,
8 women’s representation in STEM occupations has

1 increased since the 1970s, but women remain sig-
2 nificantly underrepresented in engineering and com-
3 puting occupations that make up more than 80 per-
4 cent of all STEM employment. Women’s representa-
5 tion in computer occupations has declined since the
6 1990s. In 2011, 26 percent of STEM workers were
7 women. According to the National Action Council
8 for Minorities in Engineering, Inc. (NACME), the
9 number of engineering degrees awarded to African-
10 American women has steadily declined since the late
11 1990s.

12 (2) According to the Brookings Institution
13 2013 report, “The Hidden STEM Economy”, half of
14 all STEM jobs are available to workers without a 4-
15 year college degree, and these jobs pay \$53,000 per
16 year on average. This sector of the STEM economy
17 offers job opportunities for many workers with quali-
18 fied certificates or associate’s degrees, drawing from
19 high schools, workforce training programs, voca-
20 tional schools, and community colleges. Despite
21 these opportunities, only $\frac{1}{5}$ of the \$4,300,000,000
22 spent annually by the Federal Government on
23 STEM education and training goes towards sup-
24 porting sub-bachelor’s level training.

1 (3) According to a 2011 report by the Depart-
2 ment of Commerce, underrepresented minorities ac-
3 count for only 3 out of 10 professionals in STEM
4 fields.

5 (4) STEM workers in all demographic groups
6 earn more than their non-STEM counterparts.

7 (5) According to the America After 3pm report,
8 children from African-American, Hispanic, and Na-
9 tive American populations participate in afterschool
10 programs in greater numbers than the average. Girls
11 also participate in equal numbers to boys in such
12 programs. Afterschool learning thus represents an
13 intervention point to engage with populations cur-
14 rently underrepresented in STEM fields and careers.

15 **SEC. 3. GRANT PROGRAM AUTHORIZED.**

16 (a) PROGRAM AUTHORIZED.—From the amounts ap-
17 propriated to carry out this section, the Secretary shall
18 award grants to eligible entities, on a competitive basis,
19 to enable such eligible entities to carry out programs de-
20 scribed in subsection (d) to achieve, with respect to women
21 and girls, underrepresented minorities, and individuals
22 from all economic backgrounds, (including economically
23 disadvantaged individuals and individuals living in eco-
24 nomically distressed areas), 1 or more of the following
25 goals:

1 (1) Encourage interest in the STEM fields at
2 the elementary school or secondary school levels.

3 (2) Motivate engagement in STEM fields by
4 providing relevant hands-on learning opportunities
5 at the elementary school and secondary school levels.

6 (3) Support classroom success in STEM dis-
7 ciplines at the elementary school or secondary school
8 levels.

9 (4) Support workforce training and career prep-
10 aration in STEM fields at the secondary school level.

11 (5) Improve access to career and continuing
12 education opportunities in STEM fields at the sec-
13 ondary school level.

14 (b) LIMITATION.—The Secretary may award grants
15 under this section for not longer than a 5-year period.

16 (c) APPLICATION.—

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

22 (2) CONTENTS.—An application submitted
23 under paragraph (1) shall contain—

1 (A) in the case of an eligible entity that
2 plans to use the grant funds at the elementary
3 school level—

4 (i) a description of the programs the
5 eligible entity will carry out to achieve 1 or
6 more of the goals described in paragraphs
7 (1) through (3) of subsection (a) at the el-
8 ementary school level, including the con-
9 tent of the programs and research and
10 models used to design the programs; and

11 (ii) a description of how the programs
12 described in clause (i) will support the suc-
13 cess of women and girls, underrepresented
14 minorities, and individuals from all eco-
15 nomic backgrounds (including economically
16 disadvantaged individuals and individuals
17 living in economically distressed areas) in
18 STEM education, such as—

19 (I) recruiting such individuals to
20 participate in the programs;

21 (II) supporting educators who
22 will lead the programs, and partici-
23 pants in the programs;

24 (III) encouraging partnerships
25 between in-school and out-of-school

1 educators, such as afterschool pro-
2 viders, science centers, and museums;

3 (IV) identifying public and pri-
4 vate partners that are able to support
5 the programs; and

6 (V) planning for sustaining the
7 programs financially beyond the grant
8 period; and

9 (B) in the case of an eligible entity that
10 plans to use the grant funds at the secondary
11 school level—

12 (i) a description of the programs the
13 eligible entity will carry out to achieve 1 or
14 more of the goals described in paragraphs
15 (1) through (5) of subsection (a) at the
16 secondary school level, including the con-
17 tent of the programs and research and
18 models used to design the programs;

19 (ii) a description of how the programs
20 described in clause (i) will support the suc-
21 cess of women and girls, underrepresented
22 minorities, and individuals from all eco-
23 nomic backgrounds (including economically
24 disadvantaged individuals and individuals
25 living in economically distressed areas) in

1 STEM education and workforce training
2 that prepares such individuals to take ad-
3 vantage of employment opportunities in
4 STEM fields, such as—

5 (I) recruiting such individuals to
6 participate in the programs;

7 (II) supporting educators who
8 will lead such programs, and partici-
9 pants in the programs;

10 (III) identifying public and pri-
11 vate partners that are able to support
12 the programs;

13 (IV) partnering with institutions
14 of higher education or institutions
15 providing informal science education,
16 such as afterschool programs and
17 science centers and museums;

18 (V) partnering with institutions
19 of higher education; and

20 (VI) planning for sustaining the
21 programs financially beyond the grant
22 period;

23 (iii) a review of the industry and busi-
24 ness workforce needs, including the de-

1 mand for workers with knowledge or train-
2 ing in a STEM field; and

3 (iv) an analysis of job openings that
4 require knowledge or training in a STEM
5 field.

6 (d) USE OF FUNDS.—

7 (1) REQUIRED USE OF FUNDS.—An eligible en-
8 tity that receives a grant under this section shall use
9 such grant funds to carry out programs to achieve
10 1 or more of the goals described in subsection (a)
11 at the elementary school or secondary school levels,
12 with respect to women and girls, underrepresented
13 minorities, and students from all economic back-
14 grounds (including economically disadvantaged indi-
15 viduals, and students living in economically dis-
16 tressed areas).

17 (2) AUTHORIZED USE OF FUNDS.—The pro-
18 grams described in paragraph (1) may include any
19 of the following activities, with respect to the indi-
20 viduals described in paragraph (1):

21 (A) Carrying out the activities described in
22 subparagraph (A)(ii) or (B)(ii) of subsection
23 (c)(2), as appropriate.

24 (B) Providing professional development for
25 teachers, afterschool providers, and other school

1 personnel in elementary schools or secondary
2 schools, including professional development to
3 encourage, through academic instruction and
4 support, such individuals to pursue advanced
5 classes and careers in STEM fields.

6 (C) Providing tutoring and mentoring pro-
7 grams in STEM fields.

8 (D) Establishing partnerships with institu-
9 tions of higher education, potential employers,
10 and other industry stakeholders that expose
11 such individuals to professionals in STEM
12 fields, or providing opportunities for postsec-
13 ondary academic credits or credentials.

14 (E) Providing after-school activities and
15 other informal learning opportunities designed
16 to encourage interest and develop skills in
17 STEM fields.

18 (F) Providing summer programs to extend
19 learning time and to deepen the skills and in-
20 terest in STEM fields of such individuals.

21 (G) Purchasing and utilizing—

22 (i) educational or instructional mate-
23 rials that are designed to improve edu-
24 cational outcomes in STEM fields, and will

1 serve to deepen the skills and interest in
2 STEM fields of such individuals; or

3 (ii) equipment, instrumentation, or
4 hardware used to teach and encourage in-
5 terest in STEM fields.

6 (H) Internships or opportunities for expe-
7 riential learning in STEM fields.

8 (e) REPORT.—

9 (1) ELIGIBLE ENTITIES.—Each eligible entity
10 receiving a grant under this Act shall, on an annual
11 basis, submit a report to the Secretary on the use
12 of funds and the number of students who partici-
13 pated in the programs carried out with the grant
14 funds.

15 (2) SECRETARY.—The Secretary shall, on an
16 annual basis, and using the reports received under
17 paragraph (1), report to Congress on the overall im-
18 pact and effectiveness of the grant program under
19 this Act.

20 **SEC. 4. DEFINITIONS.**

21 In this Act:

22 (1) ESEA DEFINITIONS.—The terms “edu-
23 cational service agency”, “local educational agency”,
24 “institution of higher education”, “Secretary”, and
25 “State” have the meanings given the terms in sec-

1 tion 9101 of the Elementary and Secondary Edu-
2 cation Act of 1965 (20 U.S.C. 7801).

3 (2) COMMUNITY COLLEGE.—The term “commu-
4 nity college” has the meaning given the term “junior
5 or community college” in section 312 of the Higher
6 Education Act of 1965 (20 U.S.C. 1058).

7 (3) ECONOMICALLY DISADVANTAGED INDI-
8 VIDUAL.—The term “economically disadvantaged in-
9 dividual” has the meaning given the term in section
10 400.4 of title 34, Code of Federal Regulations, as
11 such section is in effect on the date of enactment of
12 this Act.

13 (4) ECONOMICALLY DISTRESSED AREA.—The
14 term “economically distressed area” means a county
15 or equivalent division of local government of a State
16 in which, according to the most recently available
17 data from the Bureau of the Census, 40 percent or
18 more of the residents have an annual income that is
19 at or below the poverty level.

20 (5) ELIGIBLE ENTITY.—The term “eligible enti-
21 ty” means—

22 (A) a local educational agency;

23 (B) an educational service agency serving
24 more than 1 local educational agency;

1 (C) a consortium of local educational agen-
2 cies;

3 (D) a nonprofit organization that—

4 (i) works with elementary schools, sec-
5 ondary schools, or institutions of higher
6 education; and

7 (ii) has demonstrated a commitment
8 to achieving the goals described in para-
9 graphs (1) through (4) of section 3(a); or

10 (E) a community college working in part-
11 nership with secondary schools to create oppor-
12 tunities for dual enrollment, credit transfer, or
13 accelerated postsecondary credentialing.

14 (6) PARTNERS.—The term “partners” means
15 organizations that employ workers in STEM-related
16 careers or organizations with demonstrated expertise
17 in identifying, scaling, and implementing successful
18 practices in STEM education and workforce develop-
19 ment.

20 (7) STEM.—The term “STEM” means science,
21 technology, engineering, and mathematics.

22 (8) UNDERREPRESENTED MINORITY.—The
23 term “underrepresented minority” has the meaning
24 given the term “minority” in section 637.4(b) of

1 title 34, Code of Federal Regulations, as such sec-
2 tion is in effect on the date of enactment of this Act.

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