

114TH CONGRESS  
1ST SESSION

# S. 1183

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

MAY 4, 2015

Mrs. GILLIBRAND (for herself and Mr. HEINRICH) 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:

1           (1) According to a 2013 Census Bureau study,  
2 women’s representation in STEM occupations has  
3 increased since the 1970s, but women remain sig-  
4 nificantly underrepresented in engineering and com-  
5 puting occupations that make up more than 80 per-  
6 cent of all STEM employment. Women’s representa-  
7 tion in computer occupations has declined since the  
8 1990s. In 2011, 26 percent of STEM workers were  
9 women. According to the National Action Council  
10 for Minorities in Engineering, Inc., the number of  
11 engineering degrees awarded to African-American  
12 women has steadily declined since the late 1990s.

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

1       wards supporting training below the baccalaureate  
2       degree level.

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

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

9               (5) According to the Afterschool Alliance 2014  
10      report, “America After 3pm”, children from African-  
11      American, Hispanic, and Native American popu-  
12      lations participate in afterschool programs at higher  
13      rates than the national average participation rate.  
14      Girls also participate in equal numbers to boys in  
15      such programs. Afterschool learning thus represents  
16      an intervention point to engage with populations  
17      currently underrepresented in STEM fields and ca-  
18      reers.

19 **SEC. 3. GRANT PROGRAM AUTHORIZED.**

20               (a) PROGRAM AUTHORIZED.—From the amounts ap-  
21      propriated to carry out this section, the Secretary shall  
22      award grants to eligible entities, on a competitive basis,  
23      to enable such eligible entities to carry out programs de-  
24      scribed in subsection (d) to achieve, with respect to women  
25      and girls, underrepresented minorities, and individuals

1 from all economic backgrounds (including economically  
2 disadvantaged individuals and individuals living in eco-  
3 nomically distressed areas), 1 or more of the following  
4 goals:

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

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

10           (3) Support classroom success in STEM dis-  
11           ciplines at the elementary school or secondary school  
12           levels.

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

15           (5) Improve access to career and continuing  
16           education opportunities in STEM fields at the sec-  
17           ondary school level.

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

20           (c) APPLICATION.—

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

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

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

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

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

21           (I) recruiting women and girls,  
22 underrepresented minorities, and indi-  
23 viduals from all economic backgrounds  
24 (including economically disadvantaged  
25 individuals and individuals living in

1 economically distressed areas) to par-  
2 ticipate in the programs;

3 (II) supporting educators who  
4 will lead the programs, and partici-  
5 pants in the programs;

6 (III) encouraging partnerships  
7 between in-school and out-of-school  
8 educators, such as afterschool pro-  
9 viders, science centers, and museums;

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

13 (V) planning for sustaining the  
14 programs financially beyond the grant  
15 period; and

16 (B) in the case of an eligible entity that  
17 plans to use the grant funds at the secondary  
18 school level—

19 (i) a description of the programs the  
20 eligible entity will carry out to achieve 1 or  
21 more of the goals described in paragraphs  
22 (1) through (5) of subsection (a) at the  
23 secondary school level, including the con-  
24 tent of the programs and research and  
25 models used to design the programs;

1 (ii) a description of how the programs  
2 described in clause (i) will support the suc-  
3 cess of women and girls, underrepresented  
4 minorities, and individuals from all eco-  
5 nomic backgrounds (including economically  
6 disadvantaged individuals and individuals  
7 living in economically distressed areas) in  
8 STEM education and workforce training  
9 that prepares such individuals to take ad-  
10 vantage of employment opportunities in  
11 STEM fields, such as—

12 (I) recruiting women and girls,  
13 underrepresented minorities, and indi-  
14 viduals from all economic backgrounds  
15 (including economically disadvantaged  
16 individuals and individuals living in  
17 economically distressed areas) to par-  
18 ticipate in the programs;

19 (II) supporting educators who  
20 will lead such programs, and partici-  
21 pants in the programs;

22 (III) identifying public and pri-  
23 vate partners that are able to support  
24 the programs;

1 (IV) partnering with institutions  
2 of higher education or institutions  
3 providing informal science education,  
4 such as afterschool programs and  
5 science centers and museums;

6 (V) partnering with institutions  
7 of higher education; and

8 (VI) planning for sustaining the  
9 programs financially beyond the grant  
10 period;

11 (iii) a review of the industry and busi-  
12 ness workforce needs, including the de-  
13 mand for workers with knowledge or train-  
14 ing in a STEM field; and

15 (iv) an analysis of job openings that  
16 require knowledge or training in a STEM  
17 field.

18 (d) USE OF FUNDS.—

19 (1) REQUIRED USE OF FUNDS.—An eligible en-  
20 tity that receives a grant under this section shall use  
21 such grant funds to carry out programs to achieve  
22 1 or more of the goals described in subsection (a)  
23 at the elementary school or secondary school levels,  
24 with respect to women and girls, underrepresented  
25 minorities, and students from all economic back-



1 grounds (including economically disadvantaged indi-  
2 viduals and students living in economically dis-  
3 tressed areas).

4 (2) AUTHORIZED USE OF FUNDS.—The pro-  
5 grams described in paragraph (1) may include any  
6 of the following activities, with respect to the indi-  
7 viduals described in paragraph (1):

8 (A) Carrying out the activities described in  
9 subparagraph(A)(ii) or B)(ii) of subsection  
10 (c)(2), as appropriate.

11 (B) Providing professional development for  
12 teachers, afterschool providers, and other school  
13 personnel in elementary schools or secondary  
14 schools, including professional development to  
15 encourage, through academic instruction and  
16 support, such individuals to pursue advanced  
17 classes and careers in STEM fields.

18 (C) Providing tutoring and mentoring pro-  
19 grams in STEM fields.

20 (D) Establishing partnerships with institu-  
21 tions of higher education, potential employers,  
22 and other industry stakeholders that expose  
23 such individuals to professionals in STEM  
24 fields, or providing opportunities for postsec-  
25 ondary academic credits or credentials.

1 (E) Providing after-school activities and  
2 other informal learning opportunities designed  
3 to encourage interest and develop skills in  
4 STEM fields.

5 (F) Providing summer programs to extend  
6 learning time and to deepen the skills and in-  
7 terest in STEM fields of such individuals.

8 (G) Purchasing and utilizing—

9 (i) educational or instructional mate-  
10 rials that are designed to improve edu-  
11 cational outcomes in STEM fields, and will  
12 serve to deepen the skills and interest in  
13 STEM fields of such individuals; or

14 (ii) equipment, instrumentation, or  
15 hardware used to teach and encourage in-  
16 terest in STEM fields.

17 (H) Internships or opportunities for expe-  
18 riential learning in STEM fields.

19 (e) REPORT.—

20 (1) ELIGIBLE ENTITIES.—Each eligible entity  
21 receiving a grant under this Act shall, on an annual  
22 basis, submit a report to the Secretary on the use  
23 of funds and the number of students who partici-  
24 pated in the programs carried out with the grant  
25 funds.

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

6 **SEC. 4. DEFINITIONS.**

7           In this Act:

8           (1) ESEA DEFINITIONS.—The terms “edu-  
9           cational service agency”, “elementary school”, “local  
10          educational agency”, “institution of higher edu-  
11          cation”, “secondary school”, “Secretary”, and  
12          “State” have the meanings given the terms in sec-  
13          tion 9101 of the Elementary and Secondary Edu-  
14          cation Act of 1965 (20 U.S.C. 7801).

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

19          (3) ECONOMICALLY DISADVANTAGED INDI-  
20          VIDUAL.—The term “economically disadvantaged in-  
21          dividual” has the meaning given the term in section  
22          400.4 of title 34, Code of Federal Regulations, as  
23          such section is in effect on the date of enactment of  
24          this Act.

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

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

10                   (A) a local educational agency;

11                   (B) an educational service agency serving  
12 more than 1 local educational agency;

13                   (C) a consortium of local educational agen-  
14 cies;

15                   (D) a nonprofit organization that—

16                           (i) works with elementary schools, sec-  
17 ondary schools, or institutions of higher  
18 education; and

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

22                   (E) a community college working in part-  
23 nership with secondary schools to create oppor-  
24 tunities for dual enrollment, credit transfer, or  
25 accelerated postsecondary credentialing.

1           (6) PARTNERS.—The term “partners” means  
2 organizations that employ workers in STEM-related  
3 careers or organizations with demonstrated expertise  
4 in identifying, scaling, and implementing successful  
5 practices in STEM education and workforce develop-  
6 ment.

7           (7) STEM.—The term “STEM” means—

8                   (A) science, technology, engineering, and  
9 mathematics; and

10                   (B) other academic subjects that build on  
11 the subjects described in subparagraph (A),  
12 such as computer science.

13           (8) UNDERREPRESENTED MINORITY.—The  
14 term “underrepresented minority” has the meaning  
15 given the term “minority” in section 637.4(b) of  
16 title 34, Code of Federal Regulations, as such sec-  
17 tion is in effect on the date of enactment of this Act.

○