

114TH CONGRESS
2D SESSION

S. _____

To increase the participation of historically underrepresented demographic groups in science, technology, engineering, and mathematics education and industry.

IN THE SENATE OF THE UNITED STATES

Ms. HIRONO (for herself, Mrs. GILLIBRAND, Mrs. FEINSTEIN, Mr. HEINRICH, Mrs. MURRAY, Ms. BALDWIN, Ms. STABENOW, and Mr. BROWN) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To increase the participation of historically underrepresented demographic groups in science, technology, engineering, and mathematics education and industry.

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 “Women and Minorities
5 in STEM Booster Act of 2016”.

1 **SEC. 2. GRANT PROGRAM TO INCREASE THE PARTICIPA-**
2 **TION OF WOMEN AND UNDERREPRESENTED**
3 **MINORITIES IN STEM FIELDS.**

4 (a) FINDINGS.—Congress finds the following:

5 (1) According to the National Academy of
6 Sciences, STEM education at the undergraduate
7 level is vital to developing a workforce that will allow
8 the United States to remain the leader in the 21st
9 century global economy.

10 (2) According to the 2013 American Commu-
11 nity Survey Report on disparities in STEM employ-
12 ment, women comprise about half of the United
13 States workforce but only make up 26 percent of
14 STEM workers.

15 (3) According to the National Center of Edu-
16 cation Statistics, women were more likely than men
17 to switch out of STEM majors – 32 percent vs. 26
18 percent.

19 (4) According to the 2010 Association of Amer-
20 ican University Women report “Why So Few?” ap-
21 proximately 52 percent of women in STEM fields
22 quit their jobs about 10 years into their careers. It
23 is important for gender equality to increase the re-
24 tention of women in STEM fields, as women in
25 STEM careers earn 33 percent more than those in

1 non-STEM jobs, and have a smaller wage gap relative to men.
2

3 (5) According to recent Census Bureau projections, minorities will account for 57 percent of the
4 United States population by 2060. According to the
5 National Action Council for Minorities in Engineering, Inc., as the United States works to remain competitive in the world of technological innovation, the
6 United States should address the need to increase
7 the number of individuals from underrepresented minority segments of the population who work in engineering.
8
9
10
11
12

13 (6) The Higher Education Research Institute at
14 the University of California, Los Angeles, found
15 that, while freshmen from underrepresented minority
16 groups express an interest in pursuing a STEM undergraduate degree at the same rate as all other
17 freshmen, only 22.1 percent of Latino students, 18.4
18 percent of African-American students, and 18.8 percent of Native American students studying in STEM
19 fields complete their degree within 5 years, compared to an approximate 33 percent and 42 percent
20 5-year completion rate for White and Asian students, respectively.
21
22
23
24

1 (7) According to the 2015 Asian Americans Advancing Justice report “Making America Work”,
2 vancing Justice report “Making America Work”,
3 data on Asian Americans and Pacific Islanders
4 (AAPIs) on average hide the fact that some sub-
5 groups are underrepresented in STEM fields. For
6 example: only 9 percent of Cambodian, 8 percent of
7 Laotian, 8 percent of Hmong, and 7 percent of Na-
8 tive Hawaiian and Pacific Islander workers hold
9 STEM jobs, compared to 12 percent of the total
10 American population holding STEM jobs.

11 (8) According to 3-year estimates from the
12 2013 American Community Survey, Southeast Asian
13 Americans and Pacific Islanders have higher poverty
14 rates and lower educational attainment rates com-
15 pared to the overall population. Fifteen percent of
16 the overall population lives below the Federal pov-
17 erty level, while 21 percent of Pacific Islanders, 21
18 percent of Cambodian, 26 percent of Hmong, 17
19 percent of Laotian, and 16 percent of Vietnamese
20 community members live in poverty. Compared to 29
21 percent of the overall population with a bachelor’s
22 degree or higher, members of Pacific Islanders,
23 Cambodian, Hmong, Lao, and Vietnamese commu-
24 nities only have a bachelor’s degree or higher at
25 rates of 15 percent, 16 percent, 16 percent, 13 per-

1 cent, and 27 percent, respectively. Levels of poverty
2 and postsecondary educational attainment correlate
3 with these groups' underrepresentation in STEM
4 employment. Other Asian American and Pacific Is-
5 lander subgroups with similar poverty and edu-
6 cational attainment rates are similarly underrep-
7 resented in STEM employment.

8 (9) A 2014 National Center for Education Sta-
9 tistics study found that women and underrep-
10 resented minorities leave the STEM fields at higher
11 rates than their counterparts, leading to a need to
12 develop resources to retain these groups in the
13 STEM fields.

14 (b) PROGRAM AUTHORIZED.—The Director of the
15 National Science Foundation shall award grants to eligible
16 entities, on a competitive basis, to enable such eligible en-
17 tities to carry out the activities described in subsection (d),
18 in order to increase the participation of women and under-
19 represented minorities in the fields of science, technology,
20 engineering, and mathematics.

21 (c) APPLICATION.—Each eligible entity that desires
22 to receive a grant under this section shall submit an appli-
23 cation to the National Science Foundation at such time,
24 in such manner, and containing such information as the

1 Director of the National Science Foundation may reason-
2 ably require.

3 (d) AUTHORIZED ACTIVITIES.—An eligible entity
4 that receives a grant under this section shall use such
5 grant funds to carry out one or more of the following ac-
6 tivities designed to increase the participation of women or
7 minorities underrepresented in science and engineering, or
8 both:

9 (1) Online workshops.

10 (2) Mentoring programs that partner science,
11 technology, engineering, or mathematics profes-
12 sionals with students.

13 (3) Internships for undergraduate and graduate
14 students in the fields of science, technology, engi-
15 neering, and mathematics.

16 (4) Conducting outreach programs that provide
17 elementary school and secondary school students
18 with opportunities to increase their exposure to the
19 fields of science, technology, engineering, or mathe-
20 matics.

21 (5) Programs to increase the recruitment and
22 retention of underrepresented faculty.

23 (6) Such additional programs as the Director of
24 the National Science Foundation may determine.

25 (e) DEFINITIONS.—In this Act—

1 (1) the term “minority” means American In-
2 dian, Alaskan Native, Black (not of Hispanic ori-
3 gin), Hispanic (including persons of Mexican, Puerto
4 Rican, Cuban, and Central or South American ori-
5 gin), Asian (including underrepresented subgroups),
6 Native Hawaiian, Pacific Islander origin subgroup,
7 or other ethnic group underrepresented in science
8 and engineering; and

9 (2) the term “underrepresented in science and
10 engineering” means a minority group whose number
11 of scientists and engineers per 10,000 population of
12 that group is substantially below the comparable fig-
13 ure for scientists and engineers who are White and
14 not of Hispanic origin, as determined by the Sec-
15 retary of Education under section 637.4(b) of title
16 34, Code of Federal Regulations.

17 (f) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to carry out this section
19 \$15,000,000 for each of fiscal years 2017, 2018, 2019,
20 2020, and 2021.