

116TH CONGRESS
1ST SESSION

H. R. 4528

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

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 26, 2019

Mrs. CAROLYN B. MALONEY of New York introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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 2019”.

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

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

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

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

11 (3) According to the National Center of Edu-
12 cation Statistics, women were more likely than men
13 to switch out of STEM majors—32 percent vs. 26
14 percent.

15 (4) According to the 2010 Association of Amer-
16 ican University Women report “Why So Few?” ap-
17 proximately 52 percent of women in STEM fields
18 quit their jobs about 10 years into their careers. It
19 is important for gender equality to increase the re-
20 tention of women in STEM fields, as women in
21 STEM careers earn 33 percent more than those in
22 non-STEM jobs, and have a smaller wage gap rel-
23 ative to men.

24 (5) According to recent Census Bureau projec-
25 tions, minorities will account for 57 percent of the

1 United States population by 2060. According to the
2 National Action Council for Minorities in Engineer-
3 ing, Inc., as the United States works to remain com-
4 petitive in the world of technological innovation, the
5 United States should address the need to increase
6 the number of individuals from underrepresented mi-
7 nority segments of the population who work in engi-
8 neering.

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

21 (7) According to the 2015 Asian Americans Ad-
22 vancing Justice report “Making America Work”,
23 data on Asian Americans and Pacific Islanders
24 (AAPIs) on average hide the fact that some sub-
25 groups are underrepresented in STEM fields. For

1 example: only 9 percent of Cambodian, 8 percent of
2 Laotian, 8 percent of Hmong, and 7 percent of Na-
3 tive Hawaiian and Pacific Islander workers hold
4 STEM jobs, compared to 12 percent of the total
5 American population holding STEM jobs.

6 (8) According to 3-year estimates from the
7 2013 American Community Survey, Southeast Asian
8 Americans and Pacific Islanders have higher poverty
9 rates and lower educational attainment rates com-
10 pared to the overall population. Fifteen percent of
11 the overall population lives below the Federal pov-
12 erty level, while 21 percent of Pacific Islanders, 21
13 percent of Cambodian, 26 percent of Hmong, 17
14 percent of Laotian, and 16 percent of Vietnamese
15 community members live in poverty. Compared to 29
16 percent of the overall population with a bachelor's
17 degree or higher, members of Pacific Islanders,
18 Cambodian, Hmong, Lao, and Vietnamese commu-
19 nities only have a bachelor's degree or higher at
20 rates of 15 percent, 16 percent, 16 percent, 13 per-
21 cent, and 27 percent, respectively. Levels of poverty
22 and postsecondary educational attainment correlate
23 with these groups' underrepresentation in STEM
24 employment. Other Asian American and Pacific Is-
25 lander subgroups with similar poverty and edu-

1 cational attainment rates are similarly underrep-
2 resented in STEM employment.

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

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

16 (c) APPLICATION.—Each eligible entity that desires
17 to receive a grant under this section shall submit an appli-
18 cation to the National Science Foundation at such time,
19 in such manner, and containing such information as the
20 Director of the National Science Foundation may reason-
21 ably require.

22 (d) AUTHORIZED ACTIVITIES.—An eligible entity
23 that receives a grant under this section shall use such
24 grant funds to carry out one or more of the following ac-
25 tivities designed to increase the participation of women or

1 minorities underrepresented in science and engineering, or
2 both:

3 (1) Online workshops.

4 (2) Mentoring programs that partner science,
5 technology, engineering, or mathematics profes-
6 sionals with students.

7 (3) Internships for undergraduate and graduate
8 students in the fields of science, technology, engi-
9 neering, and mathematics.

10 (4) Conducting outreach programs that provide
11 elementary school and secondary school students
12 with opportunities to increase their exposure to the
13 fields of science, technology, engineering, or mathe-
14 matics.

15 (5) Programs to increase the recruitment and
16 retention of underrepresented faculty.

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

19 (e) DEFINITIONS.—In this Act—

20 (1) the term “minority” means American In-
21 dian, Alaskan Native, Black (not of Hispanic ori-
22 gin), Hispanic (including persons of Mexican, Puerto
23 Rican, Cuban, and Central or South American ori-
24 gin), Asian (including underrepresented subgroups),
25 Native Hawaiian, Pacific Islander origin subgroup,

1 or other ethnic group underrepresented in science
2 and engineering; and

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

11 (f) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated to carry out this section
13 \$15,000,000 for each of fiscal years 2020, 2021, 2022,
14 2023, and 2024.

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