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2D SESSION

# H. R. 7790

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

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IN THE HOUSE OF REPRESENTATIVES

MARCH 21, 2024

Ms. STRICKLAND (for herself, Ms. BROWN, Mr. COHEN, Ms. CLARKE of New York, Mr. EVANS, Ms. CHU, Mr. HUFFMAN, Mr. SOTO, Mrs. WATSON COLEMAN, Ms. NORTON, Ms. ROSS, Mrs. BEATTY, and Mr. GRIJALVA) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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# A BILL

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

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE.**

This Act may be cited as the ''Women and Underrepresented Minorities in STEM Booster Act of 2024''.

**SEC. 2. GRANT PROGRAM TO INCREASE THE PARTICIPATION OF WOMEN AND UNDERREPRESENTED MINORITIES IN STEM FIELDS.**

(a) FINDINGS.—Congress finds the following:

(1) According to the National Academies of Sciences, Engineering, and Medicine (NASEM), science, technology, engineering, and math (referred to in this Act as ''STEM'') education is critical to ensuring the United States maintains a diverse and competitive workforce.

(2) According to NASEM and the National Institutes of Health (NIH), diverse teams of STEM professionals innovate at higher rates than teams composed of individuals with similar identities or backgrounds.

(3) According to the National Science Foundation (NSF), in 2020 women earned only 43 percent of bachelor's degrees in physical and earth sciences, 26 percent in mathematical and computer sciences, and 24 percent in engineering. By contrast, women earned 66 percent of bachelor's degrees in social and behavioral sciences and 64 percent in agricultural and biological sciences.

(4) According to the NSF, STEM degree programs that are currently underrepresented by women also receive greater Federal financial support

for education and living expenses, compared with degree programs with disproportionately high female enrollment. Thus, male graduate students receive more Federal financial support than women.

(5) According to the NSF, while Black or African Americans made up 14 percent of the population of the United States (ages 18–34 years) in 2021, only 9 percent of bachelor's degree recipients in science and engineering were awarded to that same racial group. Moreover, while 22 percent of the population of the United States (ages 18–34) were Hispanic or Latino, they comprised only 17 percent of science and engineering bachelor's degrees awarded that year.

(6) According to the National Center for Education Statistics (NCES), only 0.3 percent of bachelors' degrees and less than 0.2 percent of masters and doctoral degrees in STEM were awarded to American Indian and Alaska Native students from 2020 through 2021, less than half their representation of the total population of the United States in 2021.

(7) According to the U.S. Census Bureau, from 2017 through 2021, less than 5 percent of women who worked full-time in the United States were em-

ployed in computer, engineering, or science occupations while more than 10 percent of men who worked full-time in the United States were employed in computer, engineering, or science occupations. Only 4 percent of Black or African Americans who worked full-time in the United States were employed in computer, engineering, or science occupations and only 5 percent of American Indian and Alaska Natives who worked full-time in the United States were employed in computer, engineering, or science occupations, while the national average of the full-time workforce in the United States who were employed in computer, engineering, or science occupations was 8 percent.

(8) According to the National Center for Science and Engineering Statistics (NCSES), women leave STEM fields at much higher rates than men. In 2021, while 79 percent of women awarded STEM degrees in 2020 were employed in a STEM occupation, only 53 percent of women remained in STEM within 5 years of earning their highest degree, and only 44 percent remained after 10 years. By contrast, 86 percent of men who had earned STEM degrees in 2020 were employed in STEM occupations, 73 percent of men remained in STEM

within 5 years of earning their degree, and 70 percent of men remained in STEM after 10 years.

(9) According to NCSES, STEM retention is even lower for women of color: in 2021, only 50 percent of Black women and 44 percent of Hispanic women who received STEM degrees in 2020 were employed in a STEM occupation, compared with 82 percent of White, non-Hispanic women. Less than 30 percent of Black or Hispanic women remained in STEM after 10 years, compared with 52 percent of White, non-Hispanic women.

(10) According to NCSES, STEM retention rates for Black or Hispanic men are higher than for women of any race but lower than White, non-Hispanic men. In 2021, 87 percent of Black or Hispanic men who received STEM degrees in 2020 were employed in a STEM occupation, compared with 93 percent of White, non-Hispanic men. Only 51 percent of Black and 61 percent of Hispanic men remained in STEM after 10 years, compared with 74 percent of White, non-Hispanic men.

(11) Data from the U.S. Census Bureau indicate that certain Asian American, Native Hawaiian and Pacific Islander (AANHPI) subgroups are still underrepresented in STEM. From 2017 through

2021, while 8 percent of workers in the United States were employed in computing, engineering, and science occupations, less than 8 percent of Cambodian, Filipino, Hmong, and Laotian workers were employed in these occupations. Only 4 percent of Native Hawaiian and other Pacific Islander (NHPI) workers were employed in these occupations. These subgroups are even less represented when compared to AANHPI workers as a whole, who on average represented 17 percent of the computing, engineering, and science workforce of the United States.

(12) Also, according to NCES, Native Hawaiian and other Pacific Islander (NHPI) STEM degree recipients are underrepresented compared with their overall population (0.2 percent of all U.S. individuals). NHPI students received less than 0.2 percent of all bachelor's degrees, and less than 0.1 percent of masters and doctoral degrees, awarded in STEM from 2020 through 2021.

(13) According to research published by the American Association for the Advancement of Science (AAAS), undergraduate students identifying as Lesbian, Gay, Bisexual, or Queer (LGBQ) were 7 percent less likely to be retained in STEM programs compared with their heterosexual counter-

parts, despite the fact that LGBQ students are 10 percent more likely to participate in undergraduate research experiences, which is a significant contributor to STEM retention absent other factors such as sexual or gender identity, than their heterosexual counterparts.

(14) According to research published by the American Society for Cell Biology, transgender and gender nonconforming undergraduate students, who represent 1 in 14 adults in the United States aged 18–24, are 10 percent less likely to remain in STEM majors than their cisgender counterparts.

(15) Research published by the AAAS also indicates that 22 percent of LGBTQ professionals had thought about leaving their STEM job, compared with 15 percent of non-LGBTQ STEM professionals. Moreover, 12 percent of LGBTQ professionals planned to leave their STEM profession within the next 5 years, compared with 8 percent of non-LGBTQ professionals.

(16) Finally, according to the NSF, persons with a disability are underrepresented in the general workforce (4 percent) compared with their representation in the general U.S. population (9 percent),

and even less represented in the STEM workforce (3 percent).

(b) PROGRAM AUTHORIZED.—The Director of the National Science Foundation shall award grants to eligible entities, on a competitive basis, to enable such eligible entities to carry out the activities described in subsection (d), in order to increase the participation of women, persons underrepresented in science and engineering, and persons with disabilities in the fields of science, technology, engineering, and mathematics.

(c) APPLICATION.—Each eligible entity that desires to receive a grant under this section shall submit an application to the National Science Foundation at such time, in such manner, and containing such information as the Director of the National Science Foundation may reasonably require.

(d) AUTHORIZED ACTIVITIES.—An eligible entity that receives a grant under this section shall use such grant funds to carry out 1 or more of the following activities designed to increase the participation of women, persons underrepresented in science and engineering, or persons with disabilities, or 2 or more of such groups, in the fields of science, technology, engineering, and mathematics:

(1) Online workshops.

(2) Mentoring programs that partner science, technology, engineering, or mathematics professionals with students.

(3) Internships for undergraduate and graduate students in the fields of science, technology, engineering, and mathematics.

(4) Conducting outreach programs that provide elementary school and secondary school students with opportunities to increase their exposure to the fields of science, technology, engineering, or mathematics.

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

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

(e) DEFINITIONS.—In this Act:

(1) MINORITY.—The term ''minority'' means American Indian, Alaskan Native, Black (not of Hispanic origin), Hispanic (including persons of Mexican, Puerto Rican, Cuban, and Central or South American origin), Asian (including underrepresented subgroups), Native Hawaiian, Pacific Islander origin subgroup, or other ethnic group underrepresented in science and engineering, or Lesbian, Gay, Bisexual,

Transgender, or Queer (LGBTQ), or gender-nonconforming.

(2) UNDERREPRESENTED IN SCIENCE AND ENGINEERING.—The term ''underrepresented in science and engineering'' means a minority group whose number of scientists and engineers per 10,000 population of that group is substantially below the comparable figure for scientists and engineers who are White and not of Hispanic origin, as determined by the Secretary of Education under section 637.4(b) of title 34, Code of Federal Regulations (or a similar successor regulation).

(3) PERSON WITH A DISABILITY.—The term ''person with a disability'' means an individual with 1 or more disability types as defined by the U.S. Census Bureau's Current Population Survey (CPS).

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $15,000,000 for each of fiscal years 2024, 2025, 2026, 2027, and 2028.

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