

117TH CONGRESS
1ST SESSION

H. R. 3859

To encourage and promote further research into informal learning opportunities to engage youth in STEM fields, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 14, 2021

Mrs. KIM of California (for herself, Ms. MOORE of Wisconsin, Mr. LUCAS, and Ms. JOHNSON of Texas) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To encourage and promote further research into informal learning opportunities to engage youth in STEM fields, 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 “Innovations in Infor-
5 mal STEM Learning Act”.

6 **SEC. 2. DEFINITIONS.**

7 Section 2 of the STEM Education Act of 2015 is
8 amended as follows:

1 “(c) PREK–8 INFORMAL STEM EDUCATION PRO-
2 GRAM.—

3 “(1) IN GENERAL.—The Director of the Na-
4 tional Science Foundation shall provide grants to in-
5 stitutions of higher education or a non-profit organi-
6 zations (or a consortia of such intuitions or organi-
7 zation) on a merit-reviewed, competitive basis for re-
8 search on programming that engages students in
9 grades preK–8, including underrepresented and
10 rural students, in STEM education in order to pre-
11 pare such students to pursue degrees or careers in
12 STEM subjects.

13 “(2) USE OF FUNDS.—

14 “(A) IN GENERAL.—Grants awarded under
15 this section shall be used toward research to ad-
16 vance the engagement of students, including
17 underrepresented and rural students, in grades
18 preK–8 in STEM through providing before-
19 school, after-school, out-of-school, or summer
20 activities, including in single-gender environ-
21 ments or programming, that are designed to en-
22 courage interest, engagement, and skills devel-
23 opment for students in STEM.

1 “(B) PERMITTED ACTIVITIES.—The activi-
2 ties described in subparagraph (A) may in-
3 clude—

4 “(i) the provision of programming de-
5 scribed in such subparagraph for the pur-
6 pose of research described in such subpara-
7 graph;

8 “(ii) the use of a variety of engage-
9 ment methods, including cooperative and
10 hands-on learning;

11 “(iii) exposure of students to role
12 models in the fields of STEM and near-
13 peer mentors;

14 “(iv) training of informal learning
15 educators, youth-serving professionals, and
16 volunteers who lead informal STEM pro-
17 grams in using evidence-based methods
18 consistent with the target student popu-
19 lation being served;

20 “(v) education of students on the rel-
21 evance and significance of STEM careers,
22 provision of academic advice and assist-
23 ance, and activities designed to help stu-
24 dents make real-world connections to
25 STEM content;

1 “(vi) the attendance of students at
2 events, competitions, and academic pro-
3 grams to provide content expertise and en-
4 courage career exposure in STEM;

5 “(vii) activities designed to engage
6 parents and families of students in grades
7 preK–8 in STEM, which may include the
8 purchase of parts and supplies needed to
9 participate in such competitions;

10 “(viii) innovative strategies to engage
11 students, such as using leadership skills
12 and outcome measures to impart youth
13 with the confidence to pursue STEM
14 coursework and academic study;

15 “(ix) coordination with STEM-rich
16 environments, including other nonprofit,
17 nongovernmental organizations, out-of-
18 classroom settings, single-gender environ-
19 ments, institutions of higher education, vo-
20 cational facilities, corporations, museums,
21 or science centers; and

22 “(x) the acquisition of instructional
23 materials or technology-based tools to con-
24 duct applicable grant activity.

1 “(3) APPLICATION.—An applicant seeking
2 funding under this section shall submit an applica-
3 tion at such time, in such manner, and containing
4 such information as may be required. Applications
5 that include or partner with a nonprofit, nongovern-
6 mental organization that has extensive experience
7 and expertise in increasing the participation of stu-
8 dents in preK–8 in STEM are encouraged. The ap-
9 plication may include the following:

10 “(A) A description of the target audience
11 to be served by the research activity or activi-
12 ties for which such funding is sought.

13 “(B) A description of the process for re-
14 cruitment and selection of students to partici-
15 pate in such activities.

16 “(C) A description of how such activity or
17 activities may inform programming that en-
18 gages students in grades preK–8 in STEM.

19 “(D) A description of how such activity or
20 activities may inform programming that pro-
21 motes student academic achievement in STEM.

22 “(E) An evaluation plan that includes, at
23 a minimum, the use of outcome-oriented meas-
24 ures to determine the impact and efficacy of
25 programming being researched.

1 “(4) EVALUATIONS.—Each recipient of a grant
2 under this section shall provide, at the conclusion of
3 every year during which the grant funds are re-
4 ceived, an evaluation in a form prescribed by the Di-
5 rector.

6 “(5) ACCOUNTABILITY AND DISSEMINATION.—

7 “(A) EVALUATION REQUIRED.—The Direc-
8 tor shall evaluate the activities established
9 under this section. Such evaluation shall—

10 “(i) use a common set of benchmarks
11 and tools to assess the results of research
12 conducted under such grants; and

13 “(ii) to the extent practicable, inte-
14 grate the findings of the research resulting
15 from the activity or activities funded
16 through the grant with the current re-
17 search on serving students with respect to
18 the pursuit of degrees or careers in STEM,
19 including underrepresented and rural stu-
20 dents, in grades preK–8.

21 “(B) REPORT ON EVALUATIONS.—Not
22 later than 180 days after the completion of the
23 evaluation under subparagraph (A), the Direc-
24 tor shall submit to Congress and make widely
25 available to the public a report that includes—

1 “(i) the results of the evaluation; and

2 “(ii) any recommendations for admin-
3 istrative and legislative action that could
4 optimize the effectiveness of the program
5 under this section.

6 “(6) COORDINATION.—In carrying out this sec-
7 tion, the Director shall, for purposes of enhancing
8 program effectiveness and avoiding duplication of ac-
9 tivities, consult, cooperate, and coordinate with the
10 programs and policies of other relevant Federal
11 agencies.”.

12 **SEC. 4. SENSE OF CONGRESS REGARDING INDUSTRY IN-**
13 **VESTMENT IN STEM EDUCATION.**

14 It is the sense of Congress that—

15 (1) In order to bolster the STEM workforce
16 pipeline, many industry sectors are becoming in-
17 volved in preK–8 initiatives to educate students on
18 the relevance and significance of STEM careers and
19 expose students to role models in the fields of STEM
20 and near-peer mentors to foster their interest in
21 STEM;

22 (2) Partnerships with education providers,
23 STEM focused competitions, and academic pro-
24 grams, have become important aspects of private
25 sector efforts to strengthen the STEM workforce;

1 (3) Understanding the work that private sector
2 organizations are undertaking in STEM fields
3 should inform the Federal Government's role in
4 STEM education; and

5 (4) Successful private sector STEM initiatives,
6 as reflected by measurements of relevant outcomes,
7 should be encouraged and support by the National
8 Science Foundation.

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