

116TH CONGRESS  
1ST SESSION

# H. R. 2518

To direct the Director of the National Science Foundation to award grants for, and support research on, the development of makerspaces, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 3, 2019

Mr. DAVID SCOTT of Georgia (for himself, Mr. TAKANO, and Mr. FERGUSON) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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## A BILL

To direct the Director of the National Science Foundation to award grants for, and support research on, the development of makerspaces, 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 “Making Advances Ki-  
5 netic Education, Research, and Skills Act” or the “MAK-  
6 ERS Act”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

1           (1) Maker communities can be found in both  
2 rural and urban communities throughout the Na-  
3 tion.

4           (2) Making has been shown to engage and mo-  
5 tivate children and adults in STEM disciplines.

6           (3) Informal education and makerspaces pro-  
7 mote skills that employers desire, such as technical  
8 skills, problem-solving skills, teamwork, and analyt-  
9 ical skills.

10          (4) Studies have shown that underrepresented  
11 populations often have better successes in informal  
12 and out-of-school STEM than in formal STEM pro-  
13 grams.

14          (5) Some studies have shown that makerspaces  
15 help to build not only technical hard skills but also  
16 collaboration and other soft skills that employers de-  
17 sire.

18 **SEC. 3. PURPOSE.**

19          The purpose of this Act is to encourage the formation  
20 and study of makerspaces to—

21           (1) engage populations within community col-  
22 leges and community environments in STEM pro-  
23 grams;

24           (2) develop desirable STEM technical and other  
25 skills including collaboration; and

1 (3) build a STEM-capable workforce.

2 **SEC. 4. DEFINITIONS.**

3 In this Act, the following definitions apply:

4 (1) HISTORICALLY BLACK COLLEGE OR UNI-  
5 VERSITY.—The term “historically Black college or  
6 university” has the meaning given the term “part B  
7 institution” under section 322 of the Higher Edu-  
8 cation Act of 1965 (20 U.S.C. 1061).

9 (2) MAKERSPACE.—The term “makerspace”  
10 means a community space that—

11 (A) provides access to tools, technology,  
12 and knowledge for learners and entrepreneurs;

13 (B) results in the prototyping or creation  
14 of physical goods, interdisciplinary learning,  
15 and educational innovation; and

16 (C) supports the development of edu-  
17 cational opportunities for personal growth,  
18 workforce training, and early stage business  
19 ventures.

20 (3) MINORITY-SERVING INSTITUTION.—The  
21 term “minority-serving institution” means an insti-  
22 tution listed in section 371(a) of the Higher Edu-  
23 cation Act of 1965 (20 U.S.C. 1067q(a)).

24 (4) RURAL COMMUNITY.—The term “rural  
25 community” has the meaning given the term “rural

1 area” in section 520 of the Housing Act of 1949 (42  
2 U.S.C. 1490).

3 (5) STEM.—The term “STEM” means the  
4 subjects of science, technology, engineering, and  
5 mathematics.

6 (6) WORKFORCE DEVELOPMENT COMPO-  
7 NENT.—The term “workforce development compo-  
8 nent” means—

9 (A) an economic development board or cor-  
10 poration, including a State board or local work-  
11 force board;

12 (B) an internship program;

13 (C) a certificate program;

14 (D) employers or an employer or industry  
15 partnership representing multiple employers;

16 (E) a community-based organization; or

17 (F) any other program considered accept-  
18 able by the Director of the National Science  
19 Foundation.

20 **SEC. 5. GRANT PROGRAM FOR RESEARCH AND CAPACITY**  
21 **BUILDING OF MAKERSPACES.**

22 (a) ESTABLISHMENT.—The Director of the National  
23 Science Foundation shall award grants on a competitive  
24 basis to institutions of higher education, or consortia of  
25 such institutions, to support the research and development

1 of makerspaces to assist in the formation of a STEM-ca-  
2 pable workforce.

3 (b) USE OF FUNDS.—A grant awarded under this  
4 section may be used for—

5 (1) research on the effectiveness of makerspaces  
6 in engaging students and the community in STEM  
7 skills and in teaching and learning, and the develop-  
8 ment, compilation, and dissemination of best prac-  
9 tices on the use of makerspaces for STEM learning  
10 and workforce preparedness;

11 (2) equipment to achieve the purpose under  
12 paragraph (1); and

13 (3) any other activities the Director considers  
14 appropriate.

15 (c) PRIORITY.—In selecting grant recipients under  
16 this section, the Director shall give priority to applicants  
17 that—

18 (1) apply in partnership with 1 or more entities  
19 that are—

20 (A) a workforce development component;

21 (B) a high-need local education agency as  
22 described in section 9(b)(3) of the National  
23 Science Foundation Authorization Act of 2002  
24 (42 U.S.C. 1862n(b)(3)); or

1 (C) an independent nonprofit or academic  
2 makerspace;

3 (2) consist of 1 or more entities that are—

4 (A) a community college; or

5 (B) a historically Black college or univer-  
6 sity or other minority-serving institution of  
7 higher education; or

8 (3) apply in partnership with or consist of an  
9 entity that is—

10 (A) described in paragraph (1) or (2); and

11 (B) operates within a rural community.

12 (d) LIMITATION.—Funds provided through a grant  
13 under this section may not be used for the construction  
14 of a physical building or facility to hold a makerspace un-  
15 less the Director determines that such construction is nec-  
16 essary for reasons of safety or the use of relevant equip-  
17 ment.

18 (e) TECHNICAL ASSISTANCE.—The Director may  
19 provide to entities receiving a grant or entities seeking  
20 such a grant under this section with technical assistance.

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