

115TH CONGRESS  
1ST SESSION

# H. R. 2184

To support meeting our Nation’s growing cybersecurity workforce needs by expanding the cybersecurity education pipeline.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 27, 2017

Mr. McCAUL (for himself, Mr. MEEHAN, Mr. PERLMUTTER, Mr. THORNBERRY, Mr. LANGEVIN, Mr. RATCLIFFE, and Mr. RICHMOND) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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## A BILL

To support meeting our Nation’s growing cybersecurity workforce needs by expanding the cybersecurity education pipeline.

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 “Cyber Scholarship Op-  
5 portunities Act of 2017”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

8 (1) A well-trained workforce is essential to  
9 meeting the Nation’s growing cybersecurity needs.

1           (2) A 2015 report by the National Academy of  
2 Public Administration found that the United States  
3 faces a severe shortage of properly trained and  
4 equipped cybersecurity professionals.

5           (3) A 2015 study of the information security  
6 workforce found that the information security work-  
7 force shortfall is widening.

8           (4) The National Science Foundation’s  
9 CyberCorps: Scholarship-for-Service program is a  
10 successful effort to support capacity building in in-  
11 stitutions of higher education and scholarships for  
12 students to pursue cybersecurity careers.

13 **SEC. 3. FEDERAL CYBER SCHOLARSHIP-FOR-SERVICE PRO-**  
14 **GRAM.**

15           Section 302 of the Cybersecurity Enhancement Act  
16 of 2014 (15 U.S.C. 7442) is amended—

17           (1) in subsection (a), by adding at the end the  
18 following: “Scholarship recipients shall include eligi-  
19 ble students who are pursuing an associate’s degree  
20 in a cybersecurity field without the intent of trans-  
21 ferring to a bachelor’s degree program and either  
22 have a bachelor’s degree already or are veterans of  
23 the Armed Forces.”;

24           (2) in subsection (d), by adding at the end the  
25 following: “In the case of a scholarship recipient who

1 is pursuing a doctoral or master’s degree, such  
2 agreement may include (if determined on a case-by-  
3 case basis by the Director of the National Science  
4 Foundation to be appropriate and to further the  
5 goals of the scholarship-for-service program) an  
6 agreement for the recipient to work at an institution  
7 of higher education or for a local educational agency  
8 teaching cybersecurity skills for a period equal to the  
9 length of the scholarship following receipt of such  
10 degree.”;

11 (3) in subsection (f)—

12 (A) by striking paragraph (3) and insert-  
13 ing the following:

14 “(3) have demonstrated a high level of com-  
15 petency in relevant knowledge, skills, and abilities,  
16 as described in the national cybersecurity awareness  
17 and education program under section 401;”;

18 (B) by striking paragraph (4) and insert-  
19 ing the following:

20 “(4) be a student in an eligible degree program  
21 at a qualified institution of higher education, as de-  
22 termined by the Director of the National Science  
23 Foundation, who is—

24 “(A) a full-time student; or

1           “(B) a student who is enrolled for study  
2           leading to a degree on a less than full-time  
3           basis but not less than half-time basis; and”;

4           (4) by striking subsection (m) and inserting the  
5           following:

6           “(m) EVALUATION AND REPORT.—

7           “(1) IN GENERAL.—The Director of the Na-  
8           tional Science Foundation shall evaluate and make  
9           public, in a manner that protects the personally  
10          identifiable information of scholarship recipients, in-  
11          formation on the success of recruiting individuals for  
12          scholarships under this section and on hiring and re-  
13          taining those individuals in the public sector work-  
14          force, including on—

15                 “(A) placement rates;

16                 “(B) where students are placed;

17                 “(C) student salary ranges for students  
18                 not released from obligations under this section;

19                 “(D) how long after graduation they are  
20                 placed;

21                 “(E) how long they stay in the positions  
22                 they enter upon graduation;

23                 “(F) how many students are released from  
24                 obligations;

1           “(G) what (if any) remedial training needs  
2           are required; and

3           “(H) the number of determinations permit-  
4           ting scholarship recipients to fulfill their obliga-  
5           tions at an institution of higher education or  
6           local educational agency pursuant to subsection  
7           (d) or in a critical infrastructure position pur-  
8           suant to subsection (p)(1), and the reason for  
9           each such determination.

10          “(2) REGULAR REPORTS.—The Director of the  
11          National Science Foundation shall submit to Con-  
12          gress a report containing the information described  
13          in paragraph (1) not later than 180 days after the  
14          date of enactment of the Cyber Scholarship Oppor-  
15          tunities Act of 2017 and not less than once every 2  
16          years thereafter.”; and

17          (5) by adding at the end the following:

18          “(n) RESOURCES.—The Director of the National  
19          Science Foundation shall work with the Director of the  
20          Office of Personnel Management to establish an online re-  
21          source center for the CyberCorps community that consoli-  
22          dates or eliminates other relevant websites, if possible.  
23          Such online resource center shall—

1           “(1) present up-to-date, accurate information  
2           about existing scholarship programs and job oppor-  
3           tunities;

4           “(2) present a modernized view of cybersecurity  
5           careers;

6           “(3) improve user friendliness; and

7           “(4) allow prospective job applicants to search  
8           positions by State, salary, and title.

9           “(o) CYBERSECURITY AT KINDERGARTEN THROUGH  
10          GRADE 12 LEVEL.—The Director of the National Science  
11          Foundation, in coordination with other Federal agencies  
12          as necessary, shall carry out a program to grow and im-  
13          prove cybersecurity education at the kindergarten through  
14          grade 12 level that—

15                 “(1) increases interest in cybersecurity careers;

16                 “(2) helps students practice correct and safe  
17                 online behavior and understand the foundational  
18                 principles of cybersecurity; and

19                 “(3) improves teaching methods for delivering  
20                 cybersecurity content for kindergarten through  
21                 grade 12 computer science curricula.

22           “(p) CRITICAL INFRASTRUCTURE PROTECTION.—  
23          Due to the need for skilled cybersecurity professionals to  
24          protect the Nation’s critical infrastructure, the Director  
25          of the National Science Foundation may—

1           “(1) grant exceptions to students for fulfilling  
2 post-award employment obligations under this sec-  
3 tion (on a case-by-case basis and in coordination  
4 with other Federal agencies) who agree to work in  
5 a critical infrastructure mission at a Federal Gov-  
6 ernment corporation or a State, local, or tribal gov-  
7 ernment-affiliated asset, system, or network that is  
8 considered to be part of a critical infrastructure sec-  
9 tor as described in Presidential Policy Directive–21,  
10 issued February 12, 2013 (related to critical infra-  
11 structure security and resilience), or any successor;  
12 and

13           “(2) develop a pilot program to enhance critical  
14 infrastructure protection training for students pur-  
15 suing careers in cybersecurity.

16           “(q) STUDIES.—The Director of the National Science  
17 Foundation, in coordination with the Director of the Of-  
18 fice of Personnel Management, shall assess—

19           “(1) the potential benefits and feasibility of  
20 granting scholarship awards under this section to  
21 students who do not possess a bachelor’s degree to  
22 pursue an associate’s degree or an industry-recog-  
23 nized credential in a cybersecurity field; and

24           “(2) how scholarship recipients with an agree-  
25 ment to work at an institution of higher education

1 or local educational agency are supporting the cyber  
2 workforce pipeline.”.

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