



AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—115th Cong., 1st Sess.

S. 754

To support meeting our Nation's growing cybersecurity work-
force needs by expanding the cybersecurity education
pipeline.

Referred to the Committee on _____ and
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended
to be proposed by Mr. WICKER (for himself, Mr. THUNE,
and Mr. NELSON)

Viz:

1 Strike all after the enacting clause and insert the fol-
2 lowing:

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 cybersecurity needs.

10 (2) An October 2015 report by the National
11 Academy of Public Administration entitled "Inreas-

1 ing the Effectiveness of the Federal Role in
2 Cybersecurity Education” noted that the United
3 States faces a severe shortage of properly trained
4 and equipped cybersecurity professionals in both the
5 government and private sector workforce.

6 (3) The 2015 (ISC)² Global Information Secu-
7 rity Workshop Study stated that “the information
8 security workforce shortfall is widening.”

9 (4) The National Science Foundation’s Federal
10 Cyber Scholarship-for-Service program is a success-
11 ful effort to support capacity building in institutions
12 of higher education and scholarships for students to
13 pursue cybersecurity careers.

14 **SEC. 3. COMMUNITY COLLEGE CYBER PILOT PROGRAM**
15 **AND ASSESSMENT.**

16 (a) PILOT PROGRAM.—Not later than 1 year after
17 the date of enactment of this Act, as part of the Federal
18 Cyber Scholarship-for-Service program established under
19 section 302 of the Cybersecurity Enhancement Act of
20 2014 (15 U.S.C. 7442), the Director of the National
21 Science Foundation, in coordination with the Director of
22 the Office of Personnel Management, shall develop and
23 implement a pilot program at not more than 10, but at
24 least 5, community colleges to provide scholarships to eli-
25 gible students who—

1 (1) are pursuing associate degrees or specialized
2 program certifications in the field of cybersecurity;
3 and

4 (2)(A) have bachelor's degrees; or

5 (B) are veterans of the armed forces.

6 (b) ASSESSMENT.—Not later than 1 year after the
7 date of enactment of this Act, as part of the Federal Cyber
8 Scholarship-for-Service program established under section
9 302 of the Cybersecurity Enhancement Act of 2014 (15
10 U.S.C. 7442), the Director of the National Science Foun-
11 dation, in coordination with the Director of the Office of
12 Personnel Management, shall assess the potential benefits
13 and feasibility of providing scholarships through commu-
14 nity colleges to eligible students who are pursuing asso-
15 ciate degrees, but do not have bachelor's degrees.

16 **SEC. 4. FEDERAL CYBER SCHOLARSHIP-FOR SERVICE PRO-**
17 **GRAM UPDATES.**

18 (a) IN GENERAL.—Section 302 of the Cybersecurity
19 Enhancement Act of 2014 (15 U.S.C. 7442) is amended—

20 (1) by striking subsection (b)(3) and inserting
21 the following:

22 “(3) prioritize the employment placement of at
23 least 80 percent of scholarship recipients in an execu-
24 tive agency (as defined in section 105 of title 5,
25 United States Code); and

1 “(4) provide awards to improve cybersecurity
2 education at the kindergarten through grade 12
3 level—

4 “(A) to increase interest in cybersecurity
5 careers;

6 “(B) to help students practice correct and
7 safe online behavior and understand the
8 foundational principles of cybersecurity;

9 “(C) to improve teaching methods for de-
10 livering cybersecurity content for kindergarten
11 through grade 12 computer science curricula;
12 and

13 “(D) to promote teacher recruitment in the
14 field of cybersecurity.”;

15 (2) by amending subsection (d) to read as fol-
16 lows:

17 “(d) POST-AWARD EMPLOYMENT OBLIGATIONS.—

18 Each scholarship recipient, as a condition of receiving a
19 scholarship under the program, shall enter into an agree-
20 ment under which the recipient agrees to work for a period
21 equal to the length of the scholarship, following receipt
22 of the student’s degree, in the cybersecurity mission of—

23 “(1) an executive agency (as defined in section
24 105 of title 5, United States Code);

1 “(2) Congress, including any agency, entity, of-
2 fice, or commission established in the legislative
3 branch;

4 “(3) an interstate agency;

5 “(4) a State, local, or tribal government; or

6 “(5) a State, local, or tribal government-affili-
7 ated non-profit that is considered to be critical infra-
8 structure (as defined in section 1016(e) of the USA
9 Patriot Act (42 U.S.C. 5195c(e)).”;

10 (3) in subsection (f)—

11 (A) by amending paragraph (3) to read as
12 follows:

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

17 (B) by amending paragraph (4) to read as
18 follows:

19 “(4) be a full-time student in an eligible degree
20 program at a qualified institution of higher edu-
21 cation, as determined by the Director of the Na-
22 tional Science Foundation, except that in the case of
23 a student who is enrolled in a community college, be
24 a student pursuing a degree on a less than full-time
25 basis, but not less than half-time basis; and”;

1 (4) by amending subsection (m) to read as fol-
2 lows:

3 “(m) PUBLIC INFORMATION.—

4 “(1) EVALUATION.—The Director of the Na-
5 tional Science Foundation, in coordination with the
6 Director of the Office of Personnel Management,
7 shall periodically evaluate and make public, in a
8 manner that protects the personally identifiable in-
9 formation of scholarship recipients, information on
10 the success of recruiting individuals for scholarships
11 under this section and on hiring and retaining those
12 individuals in the public sector cyber workforce, in-
13 cluding on—

14 “(A) placement rates;

15 “(B) where students are placed, including
16 job titles and descriptions;

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; and

1 “(G) what, if any, remedial training is re-
2 quired.

3 “(2) REPORTS.—The Director of the National
4 Science Foundation, in coordination with the Office
5 of Personnel Management, shall submit, at least
6 once every 3 years, to the Committee on Commerce,
7 Science, and Transportation of the Senate and the
8 Committee on Science, Space, and Technology of the
9 House of Representatives a report, including the re-
10 sults of the evaluation under paragraph (1) and any
11 recent statistics regarding the size, composition, and
12 educational requirements of the Federal cyber work-
13 force.

14 “(3) RESOURCES.—The Director of the Na-
15 tional Science Foundation, in coordination with the
16 Director of the Office of Personnel Management,
17 shall provide consolidated and user-friendly online
18 resources for prospective scholarship recipients, in-
19 cluding, to the extent practicable—

20 “(A) searchable, up-to-date, and accurate
21 information about participating institutions of
22 higher education and job opportunities related
23 to the field of cybersecurity; and

24 “(B) a modernized description of
25 cybersecurity careers.”.

1 (b) SAVINGS PROVISION.—Nothing in this section, or
2 an amendment made by this section, shall affect any
3 agreement, scholarship, loan, or repayment, under section
4 302 of the Cybersecurity Enhancement Act of 2014 (15
5 U.S.C. 7442), in effect on the day before the date of enact-
6 ment of this Act.

7 **SEC. 5. CYBERSECURITY TEACHING.**

8 Section 10A(i) of the National Science Foundation
9 Authorization Act of 2002 (42 U.S.C. 1862n-1(i)) is
10 amended—

11 (1) by amending paragraph (5) to read as fol-
12 lows:

13 “(5) the term ‘mathematics and science teacher’
14 means a science, technology, engineering, mathe-
15 matics, or computer science, including cybersecurity,
16 teacher at the elementary school or secondary school
17 level;” and

18 (2) by amending paragraph (7) to read as fol-
19 lows:

20 “(7) the term ‘science, technology, engineering,
21 or mathematics professional’ means an individual
22 who holds a baccalaureate, master’s, or doctoral de-
23 gree in science, technology, engineering, mathe-
24 matics, or computer science, including cybersecurity,

1 and is working in or had a career in such field or
2 a related area; and”.