

115TH CONGRESS
1ST SESSION

H. R. 3393

To increase cybersecurity education and job growth, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JULY 25, 2017

Mr. TED LIEU of California (for himself, Mr. CARTWRIGHT, and Ms. KUSTER of New Hampshire) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committees on Ways and Means, Education and the Workforce, and Oversight and Government Reform, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To increase cybersecurity education and job growth, 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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “New Collar Jobs Act of 2017”.

6 (b) TABLE OF CONTENTS.—The table of contents for
7 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Findings.
- Sec. 3. Employee cybersecurity education.

- Sec. 4. Student loan repayment for certain cybersecurity employees.
- Sec. 5. CyberCorps scholarship-for-service program.
- Sec. 6. Increased funding for Advanced Technology Education program.
- Sec. 7. Cybersecurity training incentive for Government contracts.

1 **SEC. 2. FINDINGS.**

2 Congress find the following:

3 (1) Domestic factory output has increased by
 4 21 percent since June 2009, but manufacturing em-
 5 ployment has only increased 5 percent during that
 6 time, and has been flat since late 2014.

7 (2) As manufacturers leverage new technologies
 8 from robotics to distributed control systems to create
 9 modern factories and industrial plants, different em-
 10 ployment requirements have emerged including the
 11 need for cybersecurity talent.

12 (3) Leading cybersecurity experts have reported
 13 spike of 250 percent in industrial automation and
 14 control system cyber-incidents occurring during the
 15 period between 2011 and 2015 and as a result are
 16 seeking personnel with knowledge of their industry
 17 coupled with knowledge of security technology to
 18 prevent their organization from becoming victims of
 19 cyber-attacks.

20 **SEC. 3. EMPLOYEE CYBERSECURITY EDUCATION.**

21 (a) IN GENERAL.—Subpart D of part IV of sub-
 22 chapter A of chapter 1 of the Internal Revenue Code of

1 1986 is amended by adding at the end the following new
2 section:

3 **“SEC. 45S. EMPLOYEE CYBERSECURITY EDUCATION.**

4 “(a) IN GENERAL.—For purposes of section 38, the
5 employee cybersecurity education credit determined under
6 this section for the taxable year is an amount equal to
7 50 percent of the aggregate qualified employee cybersecu-
8 rity education expenses paid or incurred by the employer
9 during such taxable year.

10 “(b) LIMITATION.—The amount allowed as a credit
11 under subsection (a) for the taxable year with respect to
12 an employee shall not exceed \$5,000.

13 “(c) QUALIFIED EMPLOYEE CYBERSECURITY EDU-
14 CATION EXPENSES.—For purposes of this section, the
15 term ‘qualified employee cybersecurity education expenses’
16 means amounts paid or incurred for each employee who
17 earns a certificate or degree at the undergraduate or grad-
18 uate level or industry-recognized certification relating to
19 those specialty areas and work roles that are listed in
20 NCWF Work Roles in the document entitled, ‘NICE Cy-
21 bersecurity Workforce Framework (NCWF)’, published by
22 the National Initiative for Cybersecurity Education
23 (NICE) of the National Institute of Standards and Tech-
24 nology.

1 “(d) CERTAIN RULES TO APPLY.—Rules similar to
2 the rules of subsections (i)(1) and (k) of section 51 shall
3 apply for purposes of this section.”.

4 (b) CREDIT MADE PART OF GENERAL BUSINESS
5 CREDIT.—Subsection (b) of section 38 of such Code is
6 amended by striking “plus” at the end of paragraph (35),
7 by striking the period at the end of paragraph (36) and
8 inserting “, plus”, and by adding at the end the following
9 new paragraph:

10 “(37) the employee cybersecurity education
11 credit determined under section 45S(a).”.

12 (c) DENIAL OF DOUBLE BENEFIT.—Subsection (a)
13 of section 280C of such Code is amended by inserting
14 “45S(a),” after “45P(a),”.

15 (d) CLERICAL AMENDMENT.—The table of sections
16 for subpart D of part IV of subchapter A of chapter 1
17 of such Code is amended by adding at the end the fol-
18 lowing new item:

“Sec. 45S. Employee cybersecurity education.”.

19 (e) EFFECTIVE DATE.—The amendments made by
20 this section shall apply to individuals commencing appren-
21 ticeship programs after the date of the enactment of this
22 Act.

1 **SEC. 4. STUDENT LOAN REPAYMENT FOR CERTAIN CYBER-**
2 **SECURITY EMPLOYEES.**

3 Section 455 of the Higher Education Act of 1965 (20
4 U.S.C. 1087e) is amended by adding at the end the fol-
5 lowing:

6 “(r) LOAN REPAYMENT FOR CYBERSECURITY WORK-
7 ERS IN ECONOMICALLY DISTRESSED AREA.—

8 “(1) IN GENERAL.—The Secretary shall cancel
9 the amount described in paragraph (2) of the bal-
10 ance of interest and principal due, in accordance
11 with such paragraph, on any eligible Federal Direct
12 Loan not in default for a borrower who—

13 “(A) makes 36 consecutive monthly pay-
14 ments on the eligible Federal Direct Loan after
15 the date of the enactment of this section pursu-
16 ant to any one or a combination of the fol-
17 lowing—

18 “(i) payments under an income-based
19 repayment plan under section 493C;

20 “(ii) payments under a standard re-
21 payment plan under subsection (d)(1)(A),
22 based on a 10-year repayment period;

23 “(iii) monthly payments under a re-
24 payment plan under subsection (d)(1) or
25 (g) of not less than the monthly amount

1 calculated under subsection (d)(1)(A),
2 based on a 10-year repayment period; or

3 “(iv) payments under an income con-
4 tingent repayment plan under subsection
5 (d)(1)(D); and

6 “(B) during the period in which the bor-
7 rower makes each of the 36 consecutive month-
8 ly payments described in subparagraph (A), has
9 been employed in a cybersecurity job—

10 “(i) located in an area that, for at
11 least 12 of such consecutive monthly pay-
12 ments is an economically distressed area;
13 and

14 “(ii) that requires that the borrower
15 work in the economically distressed area no
16 less than 60 percent of total work hours.

17 “(2) CANCELLATION AMOUNT.—After the con-
18 clusion of the employment period described in para-
19 graph (1), the Secretary shall cancel the lesser of
20 the following:

21 “(A) The obligation to repay the balance of
22 principal and interest due as of the time of such
23 cancellation, on the eligible Federal Direct
24 Loans made to the borrower under this part.

25 “(B) \$25,000.

1 “(3) INELIGIBILITY OF DOUBLE BENEFITS.—

2 No borrower may, for the same service, receive a re-
3 duction of loan obligations under both this sub-
4 section and—

5 “(A) subsection (m); or

6 “(B) section 428J, 428K, 428L, or 460.

7 “(4) DEFINITIONS.—In this section:

8 “(A) CYBERSECURITY JOB.—The term ‘cy-
9 bersecurity job’ means—

10 “(i) a skill role as defined in the
11 NCWF Work Roles by the National Initia-
12 tive for Cybersecurity Education (NICE)
13 Cybersecurity Workforce Framework
14 (NCWF) of the National Institute of
15 Standards and Technology, Special Publi-
16 cation 800–181, or any successor docu-
17 ment; or

18 “(ii) teaching a cybersecurity course
19 for a skill role described in clause (i).

20 “(B) ECONOMICALLY DISTRESSED AREA.—

21 The term ‘economically distressed area’ means
22 an area that meets one or more criteria under
23 section 301(a) of the Public Works and Eco-
24 nomic Development Act of 1965 (42 U.S.C.
25 3161(a)).”.

1 **SEC. 5. CYBERCORPS SCHOLARSHIP-FOR-SERVICE PRO-**
2 **GRAM.**

3 (a) FUNDING INCREASE.—It is the sense of the Con-
4 gress that the number of scholarships awarded by the Na-
5 tional Science Foundation for scholarships awarded under
6 the Federal cyber scholarship-for-service program estab-
7 lished by section 302 of the Cybersecurity Enhancement
8 Act of 2014 for fiscal year 2018 and each succeeding fiscal
9 year should be not less than double the number of such
10 scholarships awarded for fiscal year 2017.

11 (b) CYBERSECURITY COURSE INSTRUCTION.—Sec-
12 tion 302 of the Cybersecurity Enhancement Act of 2014
13 (15 U.S.C. 7442) is amended—

14 (1) in subsection (a), by striking “and security
15 managers” and inserting “security managers, and
16 cybersecurity course instructors,”; and

17 (2) in subsection (d), by adding at the end the
18 following: “Such work may include teaching a cyber-
19 security course for a skill role as defined in the
20 NCWF Work Roles by the National Initiative for
21 Cybersecurity Education (NICE) Cybersecurity
22 Workforce Framework (NCWF) of the National In-
23 stitute of Standards and Technology, Special Publi-
24 cation 800–181, or any successor document.”.

1 (c) ELIMINATION OF PRIORITY FOR FEDERAL GOV-
2 ERNMENT EMPLOYMENT PLACEMENTS.—Section 302(b)
3 of such Act (15 U.S.C. 7442(b)) is amended—

4 (1) in paragraph (1), by adding “and” at the
5 end;

6 (2) in paragraph (2), by striking “; and” and
7 inserting a period; and

8 (3) by striking paragraph (3).

9 **SEC. 6. INCREASED FUNDING FOR ADVANCED TECH-**
10 **NOLOGY EDUCATION PROGRAM.**

11 It is the sense of the Congress that the amount ex-
12 pended for the Information Technology and Cybersecurity
13 Division of the Advanced Technological Education pro-
14 gram of the National Science Foundation established by
15 section 3(a) of the Scientific and Advanced-Technology
16 Act of 1992 (Public Law 102–476) for fiscal year 2018
17 should be an amount equal to not less than 110 percent
18 of the amount expended for such division for fiscal year
19 2017.

20 **SEC. 7. CYBERSECURITY TRAINING INCENTIVE FOR GOV-**
21 **ERNMENT CONTRACTS.**

22 (a) IN GENERAL.—Subpart 15.3 of the Federal Ac-
23 quisition Regulation shall be revised to require, in the eval-
24 uation of a competitive proposal received in response to
25 a solicitation for a contract valued in excess of

1 \$5,000,000, that the head of an executive agency award
2 a five percent score increase to each competitive proposal
3 submitted by a qualified offeror.

4 (b) DEFINITIONS.—In this section:

5 (1) EXECUTIVE AGENCY.—The term “executive
6 agency” has the meaning given that term in section
7 102 of title 40, United States Code.

8 (2) QUALIFIED OFFEROR.—The term “qualified
9 offeror” means a business that has claimed the em-
10 ployee cybersecurity education credit under section
11 45S of the Internal Revenue Code of 1986, as added
12 by section 3, at least once within the three-year pe-
13 riod preceding the date on which the business sub-
14 mits a competitive proposal for a contract valued in
15 excess of \$5,000,000.

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