

**Calendar No. 446**117<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION**S. 2274****[Report No. 117-131]**

To authorize the Director of the Cybersecurity and Infrastructure Security Agency to establish an apprenticeship program and to establish a pilot program on cybersecurity training for veterans and members of the Armed Forces transitioning to civilian life, and for other purposes.

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**IN THE SENATE OF THE UNITED STATES**

JUNE 24, 2021

Ms. HASSAN (for herself and Mr. CORNYN) introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

JULY 18, 2022

Reported by Mr. PETERS, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

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**A BILL**

To authorize the Director of the Cybersecurity and Infrastructure Security Agency to establish an apprenticeship program and to establish a pilot program on cybersecurity training for veterans and members of the Armed Forces transitioning to civilian life, 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 “Federal Cybersecurity  
5 Workforce Expansion Act”.

6 **SEC. 2. FINDINGS.**

7        Congress finds that—

8            (1) the need for qualified cybersecurity per-  
9            sonnel is greater than ever, as demonstrated by the  
10            recent SolarWinds breach and the growing spate of  
11            ransomware attacks on critical infrastructure enti-  
12            ties and State and local governments;

13            (2) the Federal Government is facing a short-  
14            age of qualified cybersecurity personnel, as noted in  
15            a March 2019 Government Accountability Office re-  
16            port on critical staffing needs in the Federal cyber-  
17            security workforce;

18            (3) there is a national shortage of qualified cy-  
19            bersecurity personnel, and according to CyberSeek, a  
20            project supported by the National Initiative for Cy-  
21            bersecurity Education within the National Institute  
22            of Standards and Technology, there are approxi-  
23            mately 500,000 cybersecurity job openings around  
24            the United States;

1           (4) in May 2021, the Department of Homeland  
 2           Security announced that the Department was initi-  
 3           ating a 60 day sprint to hire 200 cybersecurity per-  
 4           sonnel across the Department, with 100 of those  
 5           hires for the Cybersecurity and Infrastructure Secu-  
 6           rity Agency, to address a cybersecurity workforce  
 7           shortage; and

8           (5) the Federal Government needs to—

9           (A) expand the cybersecurity workforce  
 10          pipeline of the Federal Government to  
 11          sustainably close a Federal cybersecurity work-  
 12          force shortage; and

13          (B) work cooperatively with the private  
 14          sector and State and local government authori-  
 15          ties to expand opportunities for new cybersecu-  
 16          rity professionals.

17 **SEC. 3. CYBERSECURITY AND INFRASTRUCTURE SECURITY**  
 18 **APPRENTICESHIP PROGRAM.**

19          (a) IN GENERAL.—Subtitle A of title XXII of the  
 20          Homeland Security Act (6 U.S.C. 651 et seq.) is amended  
 21          by adding at the end the following:

22 **“SEC. 2218. APPRENTICESHIP PROGRAM.**

23          “(a) DEFINITIONS.—In this section:

24                  “(1) AREA CAREER AND TECHNICAL EDU-  
 25          CATION SCHOOL.—The term ‘area career and tech-

1 nical education school<sup>2</sup> has the meaning given the  
 2 term in section 3 of the Carl D. Perkins Career and  
 3 Technical Education Act of 2006 (20 U.S.C. 2302).

4 “(2) COMMUNITY COLLEGE.—The term ‘com-  
 5 munity college<sup>2</sup> means a public institution of higher  
 6 education at which the highest degree that is pre-  
 7 dominantly awarded to students is an associate’s de-  
 8 gree, including—

9 “(A) a 2-year Tribal College or University,  
 10 as defined in section 316 of the Higher Edu-  
 11 cation Act of 1965 (20 U.S.C. 1059e); and

12 “(B) a public 2-year State institution of  
 13 higher education.

14 “(3) CYBERSECURITY WORK ROLES.—The term  
 15 ‘cybersecurity work roles’ means the work roles out-  
 16 lined in the National Initiative for Cybersecurity  
 17 Education Cybersecurity Workforce Framework  
 18 (NIST Special Publication 800–181), or any suc-  
 19 cessor framework.

20 “(4) EDUCATION AND TRAINING PROVIDER.—  
 21 The term ‘education and training provider’ means—

22 “(A) an area career and technical edu-  
 23 cation school;

24 “(B) an early college high school;

25 “(C) an educational service agency;

1           “(D) a high school;

2           “(E) a local educational agency or State  
3 educational agency;

4           “(F) a Tribal educational agency, Tribally  
5 controlled college or university, or Tribally con-  
6 trolled postsecondary career and technical insti-  
7 tution;

8           “(G) a postsecondary educational institu-  
9 tion;

10          “(H) a minority-serving institution;

11          “(I) a provider of adult education and lit-  
12 eracy activities under the Adult Education and  
13 Family Literacy Act (29 U.S.C. 3271 et seq.);

14          “(J) a local agency administering plans  
15 under title I of the Rehabilitation Act of 1973  
16 (29 U.S.C. 720 et seq.); other than section 112  
17 or part C of that title (29 U.S.C. 732, 741);

18          “(K) a related instruction provider, includ-  
19 ing a qualified intermediary acting as a related  
20 instruction provider as approved by a registra-  
21 tion agency;

22          “(L) a Job Corps center, as defined in sec-  
23 tion 142 of the Workforce Innovation and Op-  
24 portunity Act (29 U.S.C. 3192); or

1           “(M) a consortium of entities described in  
2 any of subparagraphs (A) through (L).

3           ~~“(5) ELIGIBLE ENTITY.—~~

4           “(A) IN GENERAL.—The term ‘eligible en-  
5 tity’ means—

6                   “(i) a program sponsor;

7                   “(ii) a State workforce development  
8 board or State workforce agency, or a local  
9 workforce development board or local  
10 workforce development agency;

11                   “(iii) an education and training pro-  
12 vider;

13                   “(iv) if the applicant is in a State  
14 with a State apprenticeship agency, such  
15 State apprenticeship agency;

16                   “(v) an Indian Tribe or Tribal organi-  
17 zation;

18                   “(vi) an industry or sector partner-  
19 ship, a group of employers, a trade asso-  
20 ciation, or a professional association that  
21 sponsors or participates in a program  
22 under the national apprenticeship system;

23                   “(vii) a Governor of a State;

24                   “(viii) a labor organization or joint  
25 labor-management organization; or

1                   “(ix) a qualified intermediary.

2                   “(B) SPONSOR REQUIREMENT.—Not fewer  
3                   than 1 entity described in subparagraph (A)  
4                   shall be the sponsor of a program under the na-  
5                   tional apprenticeship system.

6                   “(6) INSTITUTION OF HIGHER EDUCATION.—  
7                   The term ‘institution of higher education’ has the  
8                   meaning given the term in section 101 of the Higher  
9                   Education Act of 1965 (20 U.S.C. 1001).

10                  “(7) LOCAL EDUCATIONAL AGENCY; SEC-  
11                  ONDARY SCHOOL.—The terms ‘local educational  
12                  agency’ and ‘secondary school’ have the meanings  
13                  given those terms in section 8101 of the Elementary  
14                  and Secondary Education Act of 1965 (20 U.S.C.  
15                  7801).

16                  “(8) LOCAL WORKFORCE DEVELOPMENT  
17                  BOARD.—The term ‘local workforce development  
18                  board’ has the meaning given the term ‘local board’  
19                  in section 3 of the Workforce Innovation and Oppor-  
20                  tunity Act (29 U.S.C. 3102).

21                  “(9) NONPROFIT ORGANIZATION.—The term  
22                  ‘nonprofit organization’ means an organization that  
23                  is described in section 501(c) of the Internal Rev-  
24                  enue Code of 1986 and exempt from taxation under  
25                  section 501(a) of such Code.

1           “(10) PROVIDER OF ADULT EDUCATION.—The  
2 term ‘provider of adult education’ has the meaning  
3 given the term ‘eligible provider’ in section 203 of  
4 the Adult Education and Family Literacy Act (29  
5 U.S.C. 3272).

6           “(11) RELATED INSTRUCTION.—The term ‘re-  
7 lated instruction’ means an organized and system-  
8 atic form of instruction designed to provide an indi-  
9 vidual in an apprenticeship program with the knowl-  
10 edge of the technical subjects related to the intended  
11 occupation of the individual after completion of the  
12 program.

13           “(12) SPONSOR.—The term ‘sponsor’ means  
14 any person, association, committee, or organization  
15 operating an apprenticeship program and in whose  
16 name the program is, or is to be, registered or ap-  
17 proved.

18           “(13) STATE APPRENTICESHIP AGENCY.—The  
19 term ‘State apprenticeship agency’ has the meaning  
20 given the term in section 29.2 of title 29, Code of  
21 Federal Regulations, or any corresponding similar  
22 regulation or ruling.

23           “(14) STATE WORKFORCE DEVELOPMENT  
24 BOARD.—The term ‘State workforce development  
25 board’ has the meaning given the term ‘State board’



1 in section 3 of the Workforce Innovation and Oppor-  
 2 tunity Act (29 U.S.C. 3102).

3 “(15) WIOA TERMS.—The terms ‘career plan-  
 4 ning’, ‘community-based organization’, ‘economic de-  
 5 velopment agency’, ‘industry or sector partnership’,  
 6 ‘on-the-job training’, ‘recognized postsecondary cre-  
 7 dential’, and ‘workplace learning advisor’ have the  
 8 meanings given those terms in section 3 of the  
 9 Workforce Innovation and Opportunity Act (29  
 10 U.S.C. 3102).

11 “(16) QUALIFIED INTERMEDIARY.—

12 “(A) IN GENERAL.—The term ‘qualified  
 13 intermediary’ means an entity that dem-  
 14 onstrates expertise in building, connecting, sus-  
 15 taining, and measuring the performance of  
 16 partnerships described in subparagraph (B) and  
 17 serves program participants and employers  
 18 by—

19 “(i) connecting employers to programs  
 20 under the national apprenticeship system;

21 “(ii) assisting in the design and imple-  
 22 mentation of such programs, including cur-  
 23 riculum development and delivery for re-  
 24 lated instruction;

1           “(iii) supporting entities, sponsors, or  
2           program administrators in meeting the  
3           registration and reporting requirements of  
4           this Act;

5           “(iv) providing professional develop-  
6           ment activities such as training to men-  
7           tors;

8           “(v) supporting the recruitment, re-  
9           tention, and completion of potential pro-  
10          gram participants, including nontraditional  
11          apprenticeship populations and individuals  
12          with barriers to employment;

13          “(vi) developing and providing person-  
14          alized program participant supports, in-  
15          cluding by partnering with organizations to  
16          provide access to or referrals for supportive  
17          services and financial advising;

18          “(vii) providing services, resources,  
19          and supports for development, delivery, ex-  
20          pansion, or improvement of programs  
21          under the national apprenticeship system;  
22          or

23          “(viii) serving as a program sponsor.

24          “(B) PARTNERSHIPS.—The term ‘partner-  
25          ships described in subparagraph (B)’ means

1 partnerships among entities involved in, or ap-  
 2 plying to participate in, programs under the na-  
 3 tional apprenticeship system, including—

4 “(i) industry or sector partnerships;

5 “(ii) partnerships among employers,  
 6 joint labor-management organizations,  
 7 labor organizations, community-based or-  
 8 ganizations, industry associations, State or  
 9 local workforce development boards, edu-  
 10 cation and training providers, social service  
 11 organizations, economic development orga-  
 12 nizations, Indian Tribes or Tribal organi-  
 13 zations, one-stop operators, one-stop part-  
 14 ners, or veterans service organizations in  
 15 the State workforce development system;  
 16 or

17 “(iii) partnerships among 1 or more  
 18 of the entities described in clauses (i) and  
 19 (ii).

20 “(b) ESTABLISHMENT OF APPRENTICESHIP PRO-  
 21 GRAMS.—Not later than 2 years after the date of enact-  
 22 ment of this section, the Director may establish 1 or more  
 23 apprenticeship programs as described in subsection (c).

1       “(c) APPRENTICESHIP PROGRAMS DESCRIBED.—An  
2 apprenticeship program described in this subsection is an  
3 apprenticeship program that—

4           “(1) leads directly to employment in—

5               “(A) a cybersecurity work role with the  
6 Agency; or

7               “(B) a position with a company or other  
8 entity provided that the position is—

9                   “(i) certified by the Director as con-  
10 tributing to the national cybersecurity of  
11 the United States; and

12                   “(ii) funded at least in majority part  
13 through a contract, grant, or cooperative  
14 agreement with the Agency;

15           “(2) is focused on competencies and related  
16 learning necessary, as determined by the Director, to  
17 meet the immediate and ongoing needs of cybersecu-  
18 rity work roles at the Agency; and

19           “(3) is registered with and approved by the Of-  
20 fice of Apprenticeship of the Department of Labor  
21 or a State apprenticeship agency pursuant to the  
22 Act of August 16, 1937 (commonly known as the  
23 ‘National Apprenticeship Act’; 29 U.S.C. 50 et seq.).

24       “(d) COORDINATION.—In the development of an ap-  
25 prenticeships program under this section, the Director

1 shall consult with the Secretary of Labor, the Director of  
2 the National Institute of Standards and Technology, the  
3 Secretary of Defense, the Director of the National Science  
4 Foundation, and the Director of the Office of Personnel  
5 Management to leverage existing resources, research, com-  
6 munities of practice, and frameworks for developing cyber-  
7 security apprenticeship programs.

8       “(e) OPTIONAL USE OF GRANTS OR COOPERATIVE  
9 AGREEMENTS.—An apprenticeship program under this  
10 section may include entering into a contract or cooperative  
11 agreement with or making a grant to an eligible entity  
12 if determined appropriate by the Director based on the  
13 eligible entity—

14               “(1) demonstrating experience in implementing  
15               and providing career planning and career pathways  
16               toward apprenticeship programs;

17               “(2) having knowledge of cybersecurity work-  
18               force development;

19               “(3) being eligible to enter into a contract or  
20               cooperative agreement with or receive grant funds  
21               from the Agency as described in this section;

22               “(4) providing students who complete the ap-  
23               prenticeship program with a recognized postsec-  
24               ondary credential;

1           “(5) using related instruction that is specifically  
2           aligned with the needs of the Agency and utilizes  
3           workplace learning advisors and on-the-job training  
4           to the greatest extent possible; and

5           “(6) demonstrating successful outcomes con-  
6           necting graduates of the apprenticeship program to  
7           careers relevant to the program.

8           “(f) APPLICATIONS.—If the Director enters into an  
9           arrangement as described in subsection (e), an eligible en-  
10          tity seeking a contract, cooperative agreement, or grant  
11          under the program shall submit to the Director an applica-  
12          tion at such time, in such manner, and containing such  
13          information as the Director may require.

14          “(g) PRIORITY.—In selecting eligible entities to re-  
15          ceive a contract, grant, or cooperative agreement under  
16          this section, the Director may prioritize an eligible entity  
17          that—

18                 “(1) is a member of an industry or sector part-  
19                 nership;

20                 “(2) provides related instruction for an appren-  
21                 ticeship program through—

22                         “(A) a local educational agency, a sec-  
23                         ondary school, a provider of adult education, an  
24                         area career and technical education school, or  
25                         an institution of higher education; or

1           “(B) an apprenticeship program that was  
2           registered with the Department of Labor or a  
3           State apprenticeship agency before the date on  
4           which the eligible entity applies for the grant  
5           under subsection (g);

6           “(3) works with the Secretary of Defense, the  
7           Secretary of Veterans Affairs, or veterans organiza-  
8           tions to transition members of the Armed Forces  
9           and veterans to apprenticeship programs in a rel-  
10          evant sector; or

11          “(4) plans to use the grant to carry out the ap-  
12          prenticeship program with an entity that receives  
13          State funding or is operated by a State agency.

14          “(h) TECHNICAL ASSISTANCE.—The Director shall  
15          provide technical assistance to eligible entities to leverage  
16          the existing job training and education programs of the  
17          Agency and other relevant programs at appropriate Fed-  
18          eral agencies.

19          “(i) EXCEPTED SERVICE.—Participants in the pro-  
20          gram may be entered into cybersecurity-specific excepted  
21          service positions as determined appropriate by the Direc-  
22          tor and authorized by section 2208.

23          “(j) REPORT.—

24          “(1) IN GENERAL.—Not less than once every 2  
25          years after the establishment of an apprenticeship

1 program under this section, the Director shall sub-  
2 mit to Congress a report on the program, includ-  
3 ing—

4 “(A) a description of—

5 “(i) any activity carried out by the  
6 Agency under this section;

7 “(ii) any entity that enters into a con-  
8 tract or agreement with or receives a grant  
9 from the Agency under subsection (c);

10 “(iii) any activity carried out using a  
11 contract, agreement, or grant under this  
12 section as described in subsection (c); and

13 “(iv) best practices used to leverage  
14 the investment of the Federal Government  
15 under this section; and

16 “(B) an assessment of the results achieved  
17 by the program, including the rate of continued  
18 employment at the Agency for participants  
19 after completing an apprenticeship program  
20 carried out under this section.

21 “(k) PERFORMANCE REPORTS.—Not later than 1  
22 year after the establishment of an apprenticeship program  
23 under this section, and annually thereafter, the Director  
24 shall submit to Congress and the Secretary of Labor a  
25 report on the effectiveness of the program based on the



1 accountability measures described in clauses (i) and (ii)  
 2 of section 116(b)(2)(A) of the Workforce Innovation and  
 3 Opportunity Act (29 U.S.C. 3141(b)(2)(A)).

4 “(1) AUTHORIZATION OF APPROPRIATIONS.—There is  
 5 authorized to be appropriated to the Agency such sums  
 6 as necessary to carry out this section.”.

7 (b) TECHNICAL AND CONFORMING AMENDMENT.—  
 8 The table of contents in section 1(b) of the Homeland Se-  
 9 curity Act of 2002 (Public Law 107–296; 116 Stat. 2135)  
 10 is amended by inserting after the item relating to section  
 11 2217 the following:

“Sec. 2218. Apprenticeship program.”.

12 **SEC. 4. PILOT PROGRAM ON CYBER TRAINING FOR VET-**  
 13 **ERANS AND MEMBERS OF THE ARMED**  
 14 **FORCES TRANSITIONING TO CIVILIAN LIFE.**

15 (a) DEFINITIONS.—In this section:

16 (1) ELIGIBLE INDIVIDUAL.—The term “eligible  
 17 individual” means an individual who is—

18 (A) a member of the Armed Forces  
 19 transitioning from service in the Armed Forces  
 20 to civilian life; or

21 (B) a veteran.

22 (2) PORTABLE CREDENTIAL.—The term “port-  
 23 able credential”—

24 (A) means a documented award by a re-  
 25 sponsible and authorized entity that has deter-

1           mined that an individual has achieved specific  
 2           learning outcomes relative to a given standard;  
 3           and

4           (B) includes a degree, diploma, license,  
 5           certificate, badge, and professional or industry  
 6           certification that—

7                   (i) has value locally and nationally in  
 8                   labor markets, educational systems, or  
 9                   other contexts;

10                   (ii) is defined publicly in such a way  
 11                   that allows educators, employers, and other  
 12                   individuals and entities to understand and  
 13                   verify the full set of skills represented by  
 14                   the credential; and

15                   (iii) enables a holder of the credential  
 16                   to move vertically and horizontally within  
 17                   and across training and education systems  
 18                   for the attainment of other credentials.

19           (3) VETERAN.—The term “veteran” has the  
 20           meaning given the term in section 101 of title 31,  
 21           United States Code.

22           (4) WORK-BASED LEARNING.—The term “work-  
 23           based learning” has the meaning given the term in  
 24           section 3 of the Carl D. Perkins Career and Tech-  
 25           nical Education Act of 2006 (20 U.S.C. 2302).

1       (b) **ESTABLISHMENT.**—Not later than 1 year after  
2 the date of enactment of this Act, the Secretary of Vet-  
3 erans Affairs shall establish a pilot program under which  
4 the Secretary shall provide cyber-specific training for eligi-  
5 ble individuals.

6       (c) **ELEMENTS.**—The pilot program established  
7 under subsection (b) shall incorporate—

8           (1) virtual platforms for coursework and train-  
9       ing;

10          (2) hands-on skills labs and assessments;

11          (3) Federal work-based learning opportunities  
12       and programs; and

13          (4) the provision of portable credentials to eligi-  
14       ble individuals who graduate from the pilot program.

15       (d) **ALIGNMENT WITH NICE WORKFORCE FRAME-**  
16 **WORK FOR CYBERSECURITY.**—The pilot program estab-  
17 lished under subsection (b) shall align with the taxonomy,  
18 including work roles and associated tasks, knowledge, and  
19 skills, from the National Initiative for Cybersecurity Edu-  
20 cation Workforce Framework for Cybersecurity (NIST  
21 Special Publication 800–181), or any successor frame-  
22 work.

23       (e) **COORDINATION.**—

24           (1) **TRAINING, PLATFORMS, AND FRAME-**  
25 **WORKS.**—In developing the pilot program under sub-

1 section (b), the Secretary of Veterans Affairs shall  
2 coordinate with the Secretary of Defense, the Sec-  
3 retary of Homeland Security, the Secretary of  
4 Labor, and the Director of the Office of Personnel  
5 Management to evaluate and, where possible, lever-  
6 age existing training, platforms, and frameworks of  
7 the Federal Government for providing cyber edu-  
8 cation and training to prevent duplication of efforts.

9 ~~(2) FEDERAL WORK-BASED LEARNING OPPOR-~~  
10 ~~TUNITIES AND PROGRAMS.—~~In developing the Fed-  
11 eral work-based learning opportunities and programs  
12 required under subsection (c)(3), the Secretary of  
13 Veterans Affairs shall coordinate with the Secretary  
14 of Defense, the Secretary of Homeland Security, the  
15 Secretary of Labor, the Director of the Office of  
16 Personnel Management, and the heads of other ap-  
17 propriate Federal agencies to identify or create  
18 interagency opportunities that will enable the pilot  
19 program established under subsection (b) to—

20 (A) bridge the gap between knowledge ae-  
21 quisition and skills application for participants;  
22 and

23 (B) give participants the experience nec-  
24 essary to pursue Federal employment.

25 (f) RESOURCES.—

1           (1) IN GENERAL.—In any case in which the  
2 pilot program established under subsection (b)—

3           (A) uses a program of the Department of  
4 Veterans Affairs or platforms and frameworks  
5 described in subsection (e)(1), the Secretary of  
6 Veterans Affairs shall take such actions as may  
7 be necessary to ensure that those programs,  
8 platforms, and frameworks are expanded and  
9 resourced to accommodate usage by eligible in-  
10 dividuals participating in the pilot program; or

11           (B) does not use a program of the Depart-  
12 ment of Veterans Affairs or platforms and  
13 frameworks described in subsection (e)(1), the  
14 Secretary of Veterans Affairs shall take such  
15 actions as may be necessary to develop or pro-  
16 cure programs, platforms, and frameworks nec-  
17 essary to carry out the requirements of sub-  
18 section (e) and accommodate the usage by eligi-  
19 ble individuals participating in the pilot pro-  
20 gram.

21           (2) ACTIONS.—Actions described in paragraph  
22 (1) may include providing additional funding, staff,  
23 or other resources to—

24           (A) provide administrative support for  
25 basic functions of the pilot program;

1           (B) ensure the success and ongoing en-  
 2           gagement of eligible individuals participating in  
 3           the pilot program;

4           (C) connect graduates of the pilot program  
 5           to job opportunities within the Federal Govern-  
 6           ment; and

7           (D) allocate dedicated positions for term  
 8           employment to enable Federal work-based  
 9           learning opportunities and programs for partici-  
 10          pants to gain the experience necessary to pur-  
 11          sue permanent Federal employment.

12 **SEC. 5. FEDERAL WORKFORCE ASSESSMENT EXTENSION.**

13          Section 304(a) of the Federal Cybersecurity Work-  
 14          force Assessment Act of 2015 (5 U.S.C. 301 note) is  
 15          amended, in the matter preceding paragraph (1), by strik-  
 16          ing “2022” and inserting “2025”.

17 **SECTION 1. SHORT TITLE.**

18          *This Act may be cited as the “Federal Cybersecurity*  
 19          *Workforce Expansion Act”.*

20 **SEC. 2. FINDINGS.**

21          *Congress finds that—*

22                 (1) *the need for qualified cybersecurity personnel*  
 23                 *is greater than ever, as demonstrated by the recent*  
 24                 *SolarWinds breach and the growing spate of*

1        *ransomware attacks on critical infrastructure entities*  
2        *and State and local governments;*

3                *(2) the Federal Government is facing a shortage*  
4        *of qualified cybersecurity personnel, as noted in a*  
5        *March 2019 Government Accountability Office report*  
6        *on critical staffing needs in the Federal cybersecurity*  
7        *workforce;*

8                *(3) there is a national shortage of qualified cy-*  
9        *bersecurity personnel, and according to CyberSeek, a*  
10        *project supported by the National Initiative for Cy-*  
11        *bersecurity Education within the National Institute*  
12        *of Standards and Technology, there are approxi-*  
13        *mately 500,000 cybersecurity job openings around the*  
14        *United States;*

15                *(4) in May 2021, the Department of Homeland*  
16        *Security announced that the Department was initi-*  
17        *ating a 60 day sprint to hire 200 cybersecurity per-*  
18        *sonnel across the Department, with 100 of those hires*  
19        *for the Cybersecurity and Infrastructure Security*  
20        *Agency, to address a cybersecurity workforce shortage;*  
21        *and*

22                *(5) the Federal Government needs to—*

23                        *(A) expand the cybersecurity workforce*  
24        *pipeline of the Federal Government to*

1           *sustainably close a Federal cybersecurity work-*  
2           *force shortage; and*

3                   *(B) work cooperatively with the private sec-*  
4           *tor and State and local government authorities*  
5           *to expand opportunities for new cybersecurity*  
6           *professionals.*

7 **SEC. 3. DEFINITIONS.**

8       *In this Act:*

9           (1) *DEPARTMENT.*—*The term “Department”*  
10       *means the Department of Homeland Security.*

11           (2) *INSTITUTION OF HIGHER EDUCATION.*—*The*  
12       *term “institution of higher education” has the mean-*  
13       *ing given the term in section 101 of the Higher Edu-*  
14       *cation Act of 1965 (20 U.S.C. 1001).*

15           (3) *SECRETARY.*—*The term “Secretary” means*  
16       *the Secretary of Homeland Security.*

17 **SEC. 4. CYBERSECURITY APPRENTICESHIP PILOT PRO-**  
18                   **GRAM.**

19       (a) *DEFINITIONS.*—*In this section:*

20           (1) *AREA CAREER AND TECHNICAL EDUCATION*  
21       *SCHOOL.*—*The term “area career and technical edu-*  
22       *cation school” has the meaning given the term in sec-*  
23       *tion 3 of the Carl D. Perkins Career and Technical*  
24       *Education Act of 2006 (20 U.S.C. 2302).*



1           (2) *COMMUNITY COLLEGE*.—The term “commu-  
2           nity college” means a public institution of higher edu-  
3           cation at which the highest degree that is predomi-  
4           nantly awarded to students is an associate’s degree,  
5           including—

6                   (A) a 2-year Tribal College or University,  
7                   as defined in section 316 of the Higher Edu-  
8                   cation Act of 1965 (20 U.S.C. 1059c); and

9                   (B) a public 2-year State institution of  
10                  higher education.

11           (3) *COMPETITIVE SERVICE*.—The term “competi-  
12           tive service” has the meaning given the term in sec-  
13           tion 2102 of title 5, United States Code.

14           (4) *CYBER WORKFORCE POSITION*.—The term  
15           “cyber workforce position” means a position identi-  
16           fied as having information technology, cybersecurity,  
17           or other cyber-related functions under section 303 of  
18           the Federal Cybersecurity Workforce Assessment Act of  
19           2015 (5 U.S.C. 301 note).

20           (5) *EARLY COLLEGE HIGH SCHOOL; EDU-  
21           CATIONAL SERVICE AGENCY; LOCAL EDUCATIONAL  
22           AGENCY; SECONDARY SCHOOL; STATE EDUCATIONAL  
23           AGENCY*.—The terms “early college high school”, “edu-  
24           cational service agency”, “local educational agency”,  
25           “secondary school”, and “State educational agency”

1       *have the meanings given those terms in section 8101*  
2       *of the Elementary and Secondary Education Act of*  
3       *1965 (20 U.S.C. 7801).*

4               (6) *EDUCATION AND TRAINING PROVIDER.*—*The*  
5       *term “education and training provider” means—*

6                       (A) *an area career and technical education*  
7       *school;*

8                       (B) *an early college high school;*

9                       (C) *an educational service agency;*

10                      (D) *a high school;*

11                      (E) *a local educational agency or State edu-*  
12       *cational agency;*

13                      (F) *a Tribal educational agency (as defined*  
14       *in section 6132 of the Elementary and Sec-*  
15       *ondary Education Act of 1965 (20 U.S.C.*  
16       *7452)), Tribally controlled college or university*  
17       *(as defined in section 2(a) of the Tribally Con-*  
18       *trolled Colleges and Universities Assistance Act*  
19       *of 1978 (25 U.S.C. 1801(a)), or Tribally con-*  
20       *trolled postsecondary career and technical insti-*  
21       *tution (as defined in section 3 of the Carl D.*  
22       *Perkins Career and Technical Education Act of*  
23       *2006 (20 U.S.C. 2302));*

24                      (G) *a postsecondary educational institution,*  
25       *as defined in section 3 of the Carl D. Perkins*

1           *Career and Technical Education Act of 2006 (20*  
2           *U.S.C. 2302);*

3           *(H) a minority-serving institution;*

4           *(I) a provider of adult education and lit-*  
5           *eracy activities under the Adult Education and*  
6           *Family Literacy Act (29 U.S.C. 3271 et seq.);*

7           *(J) a local agency administering plans*  
8           *under title I of the Rehabilitation Act of 1973*  
9           *(29 U.S.C. 720 et seq.), other than section 112 or*  
10          *part C of that title (29 U.S.C. 732, 741);*

11          *(K) a related instruction provider, includ-*  
12          *ing a qualified intermediary acting as a related*  
13          *instruction provider as approved by a registra-*  
14          *tion agency;*

15          *(L) a Job Corps center, as defined in sec-*  
16          *tion 142 of the Workforce Innovation and Oppor-*  
17          *tunity Act (29 U.S.C. 3192), provided that the*  
18          *participation of the Job Corps center is con-*  
19          *sistent with the outcomes for Job Corps students*  
20          *described in section 141 of that Act (29 U.S.C.*  
21          *3191);*

22          *(M) a YouthBuild program, as defined in*  
23          *section 171(b) of the Workforce Innovation and*  
24          *Opportunity Act (29 U.S.C. 3226(b)); or*

1           (N) a consortium of entities described in  
2 any of subparagraphs (A) through (M).

3           (7) *ELIGIBLE ENTITY.*—The term “eligible enti-  
4 ty” means—

5           (A) a sponsor;

6           (B) a State workforce development board or  
7 State workforce agency, or a local workforce de-  
8 velopment board or local workforce development  
9 agency;

10           (C) an education and training provider;

11           (D) a State apprenticeship agency;

12           (E) an Indian Tribe or Tribal organiza-  
13 tion;

14           (F) an industry or sector partnership, a  
15 group of employers, a trade association, or a  
16 professional association that sponsors or partici-  
17 pates in a program under the national appren-  
18 ticeship system;

19           (G) a Governor of a State;

20           (H) a labor organization or joint labor-  
21 management organization; or

22           (I) a qualified intermediary.

23           (8) *EXCEPTED SERVICE.*—The term “excepted  
24 service” has the meaning given the term in section  
25 2103 of title 5, United States Code.

1           (9) *LOCAL WORKFORCE DEVELOPMENT BOARD.*—  
 2           The term “local workforce development board” has the  
 3           meaning given the term “local board” in section 3 of  
 4           the Workforce Innovation and Opportunity Act (29  
 5           U.S.C. 3102).

6           (10) *MINORITY-SERVING INSTITUTION.*—The  
 7           term “minority-serving institution” means an insti-  
 8           tution of higher education described in section 371(a)  
 9           of the Higher Education Act of 1965 (20 U.S.C.  
 10          1067q(a)).

11          (11) *NONPROFIT ORGANIZATION.*—The term  
 12          “nonprofit organization” means an organization that  
 13          is described in section 501(c) of the Internal Revenue  
 14          Code of 1986 and exempt from taxation under section  
 15          501(a) of such Code.

16          (12) *PROVIDER OF ADULT EDUCATION.*—The  
 17          term “provider of adult education” has the meaning  
 18          given the term “eligible provider” in section 203 of  
 19          the Adult Education and Family Literacy Act (29  
 20          U.S.C. 3272).

21          (13) *QUALIFIED INTERMEDIARY.*—

22                (A) *IN GENERAL.*—The term “qualified  
 23                intermediary” means an entity that dem-  
 24                onstrates expertise in building, connecting, sus-  
 25                taining, and measuring the performance of part-

- 1            *nerships described in subparagraph (B) and*  
2            *serves program participants and employers by—*
- 3                    *(i) connecting employers to programs*  
4                    *under the national apprenticeship system;*
- 5                    *(ii) assisting in the design and imple-*  
6                    *mentation of such programs, including cur-*  
7                    *riculum development and delivery for re-*  
8                    *lated instruction;*
- 9                    *(iii) supporting entities, sponsors, or*  
10                   *program administrators in meeting the reg-*  
11                   *istration and reporting requirements of this*  
12                   *Act;*
- 13                   *(iv) providing professional development*  
14                   *activities such as training to mentors;*
- 15                   *(v) supporting the recruitment, reten-*  
16                   *tion, and completion of potential program*  
17                   *participants, including nontraditional ap-*  
18                   *prenticeship populations and individuals*  
19                   *with barriers to employment;*
- 20                   *(vi) developing and providing person-*  
21                   *alized program participant supports, in-*  
22                   *cluding by partnering with organizations to*  
23                   *provide access to or referrals for supportive*  
24                   *services and financial advising;*

1                   (vii) providing services, resources, and  
2                   supports for development, delivery, expan-  
3                   sion, or improvement of programs under the  
4                   national apprenticeship system; or

5                   (viii) serving as a sponsor.

6                   (B) *PARTNERSHIPS*.—The term “partner-  
7                   ships described in subparagraph (B)” means  
8                   partnerships among entities involved in, or ap-  
9                   plying to participate in, programs under the na-  
10                  tional apprenticeship system, including—

11                  (i) industry or sector partnerships;

12                  (ii) partnerships among employers,  
13                  joint labor-management organizations,  
14                  labor organizations, community-based orga-  
15                  nizations, industry associations, State or  
16                  local workforce development boards, edu-  
17                  cation and training providers, social service  
18                  organizations, economic development agen-  
19                  cies, Indian Tribes or Tribal organizations,  
20                  one-stop operators, one-stop partners, or vet-  
21                  erans service organizations in the State  
22                  workforce development system; or

23                  (iii) partnerships among 1 or more of  
24                  the entities described in clause (i) or (ii).

1           (14) *RELATED INSTRUCTION*.—The term “related  
2           instruction” means an organized and systematic form  
3           of instruction designed to provide an individual in  
4           an apprenticeship program with the knowledge of the  
5           technical subjects related to the intended occupation of  
6           the individual after completion of the program.

7           (15) *SPONSOR*.—The term “sponsor” means any  
8           person, association, committee, or organization oper-  
9           ating an apprenticeship program and in whose name  
10          the program is, or is to be, registered or approved.

11          (16) *STATE*.—The term “State” has the meaning  
12          given the term in section 2 of the Homeland Security  
13          Act of 2002 (6 U.S.C. 101).

14          (17) *STATE APPRENTICESHIP AGENCY*.—The  
15          term “State apprenticeship agency” has the meaning  
16          given the term in section 29.2 of title 29, Code of Fed-  
17          eral Regulations, or any corresponding similar regu-  
18          lation or ruling.

19          (18) *STATE WORKFORCE DEVELOPMENT*  
20          *BOARD*.—The term “State workforce development  
21          board” has the meaning given the term “State board”  
22          in section 3 of the Workforce Innovation and Oppor-  
23          tunity Act (29 U.S.C. 3102).

24          (19) *WIOA TERMS*.—The terms “career plan-  
25          ning”, “career pathway”, “community-based organi-



1        *zation*”, “*economic development agency*”, “*industry*  
 2        *or sector partnership*”, “*on-the-job training*”, “*one-*  
 3        *stop operator*”, “*one-stop partner*”, “*recognized post-*  
 4        *secondary credential*”, and “*workplace learning advi-*  
 5        *sor*” have the meanings given those terms in section  
 6        3 of the *Workforce Innovation and Opportunity Act*  
 7        (29 U.S.C. 3102).

8        (b) *ESTABLISHMENT OF APPRENTICESHIP PILOT PRO-*  
 9        *GRAM.*—

10            (1) *IN GENERAL.*—Not later than 3 years after  
 11        the date of enactment of this Act, the Secretary shall  
 12        establish an apprenticeship pilot program.

13            (2) *REQUIREMENTS.*—The apprenticeship pilot  
 14        program established under paragraph (1) shall—

15                    (A) employ pilot program participants in  
 16        cyber workforce positions within the Department;

17                    (B) employ not more than 25 new pilot pro-  
 18        gram participants during each year during  
 19        which the pilot program is carried out;

20                    (C) be intended to lead to employment in a  
 21        cyber workforce position within a Federal agen-  
 22        cy;

23                    (D) focus on related learning necessary, as  
 24        determined by the Secretary in consultation with  
 25        the Director of the Office of Personnel Manage-

1           *ment and based upon the National Initiative for*  
2           *Cybersecurity Education Workforce Framework*  
3           *for Cybersecurity (NIST Special Publication*  
4           *800–181, Revision 1), or successor framework, to*  
5           *meet the immediate and ongoing needs of cyber*  
6           *workforce positions within Federal agencies;*

7                   *(E) be registered with and approved by the*  
8           *Office of Apprenticeship of the Department of*  
9           *Labor or a State apprenticeship agency pursu-*  
10          *ant to the Act of August 16, 1937 (commonly*  
11          *known as the “National Apprenticeship Act”; 29*  
12          *U.S.C. 50 et seq.);*

13                   *(F) be approved by the Secretary of Vet-*  
14          *erans Affairs, pursuant to chapter 36 of title 38,*  
15          *United States Code, or other applicable provi-*  
16          *sions of law, as eligible for educational assist-*  
17          *ance to veterans; and*

18                   *(G) be sponsored by the Department or an*  
19          *eligible entity receiving a contract, cooperative*  
20          *agreement, or grant under subsection (d).*

21          *(c) COORDINATION.—In the development of the ap-*  
22          *prenticeship pilot program under this section, the Secretary*  
23          *shall consult with the Secretary of Labor, the Director of*  
24          *the National Institute of Standards and Technology, the*  
25          *Secretary of Defense, the Director of the National Science*

1 *Foundation, and the Director of the Office of Personnel*  
2 *Management to leverage existing resources, research, com-*  
3 *munities of practice, and frameworks for developing cyber-*  
4 *security apprenticeship programs.*

5       *(d) OPTIONAL USE OF CONTRACTS, COOPERATIVE*  
6 *AGREEMENTS, OR GRANTS.—The apprenticeship pilot pro-*  
7 *gram under this section may include entering into a con-*  
8 *tract or cooperative agreement with or making a grant to*  
9 *an eligible entity if determined appropriate by the Sec-*  
10 *retary based on the eligible entity—*

11           *(1) demonstrating experience in implementing*  
12           *and providing career planning and career pathways*  
13           *toward apprenticeship programs;*

14           *(2) having knowledge of cybersecurity workforce*  
15           *development;*

16           *(3) being eligible to enter into a contract or co-*  
17           *operative agreement with or receive grant funds from*  
18           *the Department as described in this section;*

19           *(4) providing participants who complete the ap-*  
20           *prenticeship pilot program with 1 or more recognized*  
21           *postsecondary credentials;*

22           *(5) using related instruction that is specifically*  
23           *aligned with the needs of Federal agencies and uti-*  
24           *lizes workplace learning advisors and on-the-job*  
25           *training to the greatest extent possible; and*

1           (6) *demonstrating successful outcomes connecting*  
2           *participants in apprenticeship programs to careers*  
3           *relevant to the apprenticeship pilot program.*

4           (e) *APPLICATIONS.—If the Secretary enters into an ar-*  
5           *angement as described in subsection (d), an eligible entity*  
6           *seeking a contract, cooperative agreement, or grant under*  
7           *the pilot program shall submit to the Secretary an applica-*  
8           *tion at such time, in such manner, and containing such*  
9           *information as the Secretary may require.*

10          (f) *PRIORITY.—In selecting eligible entities to receive*  
11          *a contract, cooperative agreement, or grant under sub-*  
12          *section (d), the Secretary may prioritize an eligible entity*  
13          *that—*

14                 (1) *is a member of an industry or sector part-*  
15                 *nership that sponsors or participates in a program*  
16                 *under the national apprenticeship system;*

17                 (2) *provides related instruction for an appren-*  
18                 *ticeship program that was registered with the Depart-*  
19                 *ment of Labor or a State apprenticeship agency be-*  
20                 *fore the date on which the eligible entity applies for*  
21                 *the contract, cooperative agreement, or grant under*  
22                 *subsection (e);*

23                 (3) *works with the Secretary of Defense, the Sec-*  
24                 *retary of Veterans Affairs, or veterans organizations*  
25                 *to transition members of the Armed Forces and vet-*

1        *erans to apprenticeship programs in a relevant sector;*  
2        *or*

3            *(4) plans to use the contract, cooperative agree-*  
4        *ment, or grant to carry out the apprenticeship pilot*  
5        *program under this section with an entity that re-*  
6        *ceives State funding or is operated by a State agency;*

7            *(5) has successfully increased the representation*  
8        *in cybersecurity of women, underrepresented minori-*  
9        *ties, and individuals from other underrepresented*  
10       *communities; or*

11           *(6) focuses on recruiting women, underrep-*  
12       *resented minorities, and individuals from other*  
13       *underrepresented communities.*

14        *(g) TECHNICAL ASSISTANCE.—The Secretary shall*  
15       *provide technical assistance to eligible entities that receive*  
16       *a contract, cooperative agreement, or grant under sub-*  
17       *section (d) to leverage the existing job training and edu-*  
18       *cation programs of the Department and other relevant pro-*  
19       *grams at appropriate Federal agencies.*

20        *(h) SERVICE AGREEMENT FOR PILOT PROGRAM PAR-*  
21       *TICIPANTS.—*

22           *(1) IN GENERAL.—Participants in the appren-*  
23       *ticeship pilot program under this section shall enter*  
24       *into an agreement to, after completion of the appren-*  
25       *ticeship pilot program and if offered employment in*

1     *a cyber workforce position within a Federal agency*  
2     *post-apprenticeship, accept and continue employment*  
3     *in such cyber workforce position for a period of obli-*  
4     *gated service equal to the length of service in a posi-*  
5     *tion under the apprenticeship pilot program by the*  
6     *participant.*

7             (2) *REPAYMENT FOR PERIOD OF UNSERVED OB-*  
8     *LIGATED SERVICE.*—*If a participant in the appren-*  
9     *ticeship pilot program under this section fails to sat-*  
10    *isfy the requirements of the service agreement entered*  
11    *into under paragraph (1) for a reason other than in-*  
12    *voluntary separation, the participant shall repay the*  
13    *cost of any education and training provided to the*  
14    *participant as a part of the apprenticeship pilot pro-*  
15    *gram, reduced by the ratio of the period of obligated*  
16    *service completed divided by the total period of obli-*  
17    *gated service.*

18             (3) *EXCEPTION.*—*The Secretary may provide for*  
19    *the partial or total waiver or suspension of any serv-*  
20    *ice or payment obligation by an individual under*  
21    *this subsection if the Secretary determines that com-*  
22    *pliance by the individual with the obligation is im-*  
23    *possible or would involve extreme hardship to the in-*  
24    *dividual, or if enforcement of such obligation with re-*  
25    *spect to the individual would be unconscionable.*

1       (i) *APPRENTICESHIP HIRING AUTHORITY.*—Partici-  
2 *pants in the apprenticeship pilot program under this sec-*  
3 *tion may be appointed to cybersecurity-specific positions in*  
4 *the excepted service as determined appropriate by the Sec-*  
5 *retary and authorized by section 2208 of the Homeland Se-*  
6 *curity Act of 2002 (6 U.S.C. 658).*

7       (j) *POST-APPRENTICESHIP HIRING AUTHORITY.*—Pur-  
8 *suant to subsection (b)(2)(B), a participant who success-*  
9 *fully completes the apprenticeship pilot program under this*  
10 *section may be appointed to a cyber workforce position in*  
11 *the excepted service for which the participant is qualified.*

12       (k) *POST-APPRENTICESHIP TRIAL PERIOD.*—Federal  
13 *service following the apprenticeship shall be subject to com-*  
14 *pletion of a trial period in accordance with any applicable*  
15 *law, Executive Order, rule, or regulation.*

16       (l) *REPORT.*—

17           (1) *SECRETARY.*—Not later than 2 years after  
18 *the date on which the apprenticeship pilot program is*  
19 *established under this section, and annually there-*  
20 *after, the Secretary, in consultation with the Sec-*  
21 *retary of Labor and the Director of the Office of Per-*  
22 *sonnel Management, shall submit to Congress a report*  
23 *on the pilot program, including—*

24                   (A) *a description of—*

1           (i) any activity carried out by the De-  
2           partment under this section;

3           (ii) any entity that enters into a con-  
4           tract or cooperative agreement with or re-  
5           ceives a grant from the Department under  
6           subsection (d);

7           (iii) any activity carried out using a  
8           contract, cooperative agreement, or grant  
9           under this section as described in subsection  
10          (d); and

11          (iv) best practices used to leverage the  
12          investment of the Federal Government  
13          under this section; and

14          (B) an assessment of the results achieved by  
15          the pilot program, including—

16               (i) the rate of continued employment  
17               within a Federal agency for participants  
18               after completing the pilot program;

19               (ii) the demographics of participants  
20               in the pilot program, including representa-  
21               tion of women, underrepresented minorities,  
22               and individuals from other underrep-  
23               resented communities;

24               (iii) the completion rate for the pilot  
25               program, including if there are any identi-



1             *fiable patterns with respect to participants*  
2             *who do not complete the pilot program; and*  
3             *(iv) the return on investment for the*  
4             *pilot program.*

5            (2)  *COMPTROLLER GENERAL.—Not later than 4*  
6             *years after the date on which the apprenticeship pilot*  
7             *program is established under this section, the Comp-*  
8             *troller General of the United States shall submit to*  
9             *Congress a report on the pilot program, including the*  
10            *recommendation of the Comptroller General with re-*  
11            *spect to whether the pilot program should be extended.*

12           (m)  *TERMINATION.—The authority to carry out the*  
13            *apprenticeship pilot program under this section shall ter-*  
14            *minate on the date that is 5 years after the date on which*  
15            *the Secretary establishes the apprenticeship pilot program*  
16            *under this section.*

17 **SEC. 5. PILOT PROGRAM ON CYBERSECURITY TRAINING**  
18 **FOR VETERANS AND MILITARY SPOUSES.**

19           (a)  *DEFINITIONS.—In this section:*

20           (1)  *ELIGIBLE INDIVIDUAL.—The term “eligible*  
21            *individual” means an individual who is—*

22           (A)  *a veteran who is entitled to educational*  
23            *assistance under chapter 30, 32, 33, 34, or 35 of*  
24            *title 38, United States Code, or chapter 1606 or*  
25            *1607 of title 10, United States Code;*

1           (B) a member of the active or a reserve  
2 component of the Armed Forces that the Sec-  
3 retary of Veterans Affairs determines will become  
4 an eligible individual under subparagraph (A)  
5 within 180 days of such determination, provided  
6 that if the individual does anything to make  
7 themselves ineligible during the 180-day period,  
8 the Secretary of Veterans Affairs may require the  
9 individual to repay any benefits received under  
10 this section; or

11           (C) an eligible spouse described in section  
12 1784a(b) of title 10, United States Code.

13           (2) *RECOGNIZED POSTSECONDARY CREDEN-*  
14 *TIAL.*—The term “recognized postsecondary creden-  
15 tial” has the meaning given the term in section 3 of  
16 the Workforce Innovation and Opportunity Act (29  
17 U.S.C. 3102).

18           (3) *VETERAN.*—The term “veteran” has the  
19 meaning given the term in section 101 of title 38,  
20 United States Code.

21           (4) *WORK-BASED LEARNING.*—The term “work-  
22 based learning” has the meaning given the term in  
23 section 3 of the Carl D. Perkins Career and Technical  
24 Education Act of 2006 (20 U.S.C. 2302).

1           (b) *ESTABLISHMENT.*—Not later than 3 years after the  
2 date of enactment of this Act, the Secretary, in coordination  
3 with the Secretary of Veterans Affairs, shall establish a pilot  
4 program to provide cybersecurity training at no cost to eli-  
5 gible individuals.

6           (c) *ELEMENTS.*—The pilot program established under  
7 subsection (b) shall incorporate—

8                   (1) *coursework and training that, if applicable,*  
9                   *qualifies for postsecondary credit toward an associate*  
10                   *or baccalaureate degree at an institution of higher*  
11                   *education;*

12                   (2) *virtual learning opportunities;*

13                   (3) *hands-on learning and performance-based as-*  
14                   *sessments;*

15                   (4) *Federal work-based learning opportunities*  
16                   *and programs; and*

17                   (5) *the provision of recognized postsecondary cre-*  
18                   *dentials to eligible individuals who complete the pilot*  
19                   *program.*

20           (d) *ALIGNMENT WITH NICE WORKFORCE FRAME-*  
21 *WORK FOR CYBERSECURITY.*—The pilot program estab-  
22 lished under subsection (b) shall align with the taxonomy,  
23 including work roles and competencies and the associated  
24 tasks, knowledge, and skills, from the National Initiative  
25 for Cybersecurity Education Workforce Framework for Cy-

1 *bersecurity (NIST Special Publication 800–181, Revision*  
2 *1), or successor framework.*

3 *(e) COORDINATION.—*

4 *(1) TRAINING, PLATFORMS, AND FRAMEWORKS.—*

5 *In developing the pilot program under subsection (b),*  
6 *the Secretary shall coordinate with the Secretary of*  
7 *Veterans Affairs, the Secretary of Defense, the Sec-*  
8 *retary of Labor, the Director of the National Institute*  
9 *of Standards and Technology, and the Director of the*  
10 *Office of Personnel Management to evaluate and,*  
11 *where possible, leverage existing training, platforms,*  
12 *and frameworks of the Federal Government for pro-*  
13 *viding cybersecurity education and training to pre-*  
14 *vent duplication of efforts.*

15 *(2) EXISTING EDUCATIONAL ASSISTANCE.—In*  
16 *developing the pilot program under subsection (b), the*  
17 *Secretary shall coordinate with the Secretary of Vet-*  
18 *erans Affairs to ensure that, to the greatest extent pos-*  
19 *sible, eligible individuals can utilize educational as-*  
20 *sistance under chapter 30, 32, 33, 34, or 35 of title*  
21 *38, United States Code, or chapter 1606 or 1607 of*  
22 *title 10, United States Code, or other educational as-*  
23 *sistance available to eligible individuals, such as the*  
24 *high technology pilot program described in section*  
25 *116 of the Harry W. Colmery Veterans Educational*

1 *Assistance Act of 2017 (38 U.S.C. 3001 note), while*  
2 *participating in the program.*

3 (3) *FEDERAL WORK-BASED LEARNING OPPORTU-*  
4 *NITIES AND PROGRAMS.—In developing the Federal*  
5 *work-based learning opportunities and programs re-*  
6 *quired under subsection (c)(4), the Secretary shall co-*  
7 *ordinate with the Secretary of Veterans Affairs, the*  
8 *Secretary of Defense, the Secretary of Labor, the Di-*  
9 *rector of the Office of Personnel Management, and the*  
10 *heads of other appropriate Federal agencies to iden-*  
11 *tify or create, as necessary, interagency opportunities*  
12 *that will enable the pilot program established under*  
13 *subsection (b) to—*

14 (A) *allow the participants to acquire and*  
15 *demonstrate competencies; and*

16 (B) *give participants the capabilities nec-*  
17 *essary to qualify for Federal employment.*

18 (f) *RESOURCES.—*

19 (1) *IN GENERAL.—In any case in which the pilot*  
20 *program established under subsection (b)—*

21 (A) *uses training, platforms, and frame-*  
22 *works described in subsection (e)(1), the Sec-*  
23 *retary, in coordination with the Secretary of*  
24 *Veterans Affairs, shall take such actions as may*  
25 *be necessary to ensure that the trainings, plat-*

1        *forms, and frameworks are expanded and*  
2        *resourced to accommodate usage by eligible indi-*  
3        *viduals participating in the pilot program; or*

4                *(B) does not use training, platforms, and*  
5        *frameworks described in subsection (e)(1), the*  
6        *Secretary, in coordination with the Secretary of*  
7        *Veterans Affairs, shall take such actions as may*  
8        *be necessary to develop or procure training, plat-*  
9        *forms, and frameworks necessary to carry out the*  
10       *requirements of subsection (c) and accommodate*  
11       *the usage by eligible individuals participating in*  
12       *the pilot program.*

13        *(2) ACTIONS.—Actions described in paragraph*  
14       *(1) may include providing additional funding, staff,*  
15       *or other resources to—*

16                *(A) recruit and retain women, underrep-*  
17        *resented minorities, and individuals from other*  
18        *underrepresented communities;*

19                *(B) provide administrative support for*  
20        *basic functions of the pilot program;*

21                *(C) ensure the success and ongoing engage-*  
22        *ment of eligible individuals participating in the*  
23        *pilot program;*

1           (D) connect participants who complete the  
2 pilot program to job opportunities within the  
3 Federal Government; and

4           (E) allocate dedicated positions for term  
5 employment to enable Federal work-based learn-  
6 ing opportunities and programs, as required  
7 under subsection (c)(4), for participants to gain  
8 the competencies necessary to pursue permanent  
9 Federal employment.

10 (g) *REPORTS.*—

11           (1) *SECRETARY.*—Not later than 2 years after  
12 the date on which the pilot program is established  
13 under subsection (b), and annually thereafter, the  
14 Secretary shall submit to Congress a report on the  
15 pilot program, including—

16           (A) a description of—

17               (i) any activity carried out by the De-  
18 partment under this section; and

19               (ii) the existing training, platforms,  
20 and frameworks of the Federal Government  
21 leveraged in accordance with subsection  
22 (e)(1); and

23           (B) an assessment of the results achieved by  
24 the pilot program, including—

1           (i) the admittance rate into the pilot  
2 program;

3           (ii) the demographics of participants  
4 in the program, including representation of  
5 women, underrepresented minorities, and  
6 individuals from other underrepresented  
7 communities;

8           (iii) the completion rate for the pilot  
9 program, including if there are any identi-  
10 fiable patterns with respect to participants  
11 who do not complete the pilot program;

12           (iv) as applicable, the transfer rates to  
13 other academic or vocational programs, and  
14 certifications and licensure exam passage  
15 rates;

16           (v) the rate of continued employment  
17 within a Federal agency for participants  
18 after completing the pilot program;

19           (vi) the rate of continued employment  
20 for participants after completing the pilot  
21 program; and

22           (vii) the median annual salary of par-  
23 ticipants who completed the pilot program  
24 and were subsequently employed.





Calendar No. 446

117<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

**S. 2274**

[Report No. 117-1311]

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## **A BILL**

To authorize the Director of the Cybersecurity and Infrastructure Security Agency to establish an apprenticeship program and to establish a pilot program on cybersecurity training for veterans and members of the Armed Forces transitioning to civilian life, and for other purposes.

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JULY 18, 2022

Reported with an amendment