

115TH CONGRESS  
1ST SESSION

# H. R. 1981

To codify an office within the Department of Homeland Security with the mission of strengthening the capacity of the agency to attract and retain highly trained computer and information security professionals, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 6, 2017

Ms. JACKSON LEE introduced the following bill; which was referred to the Committee on Education and the Workforce, and in addition to the Committees on Science, Space, and Technology, and Homeland Security, 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

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## A BILL

To codify an office within the Department of Homeland Security with the mission of strengthening the capacity of the agency to attract and retain highly trained computer and information security professionals, 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,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
3 “Cyber Security Education and Federal Workforce En-  
4 hancement Act”.

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

Sec. 1. Short title; table of contents.

Sec. 2. Findings.

TITLE I—DEPARTMENT OF HOMELAND SECURITY K–12  
EXCELLENCE IN SCIENCE AND TECHNOLOGY

Sec. 101. Office of Cybersecurity Education and Awareness.

Sec. 102. Science and technology initiative grants.

Sec. 103. Project-based learning program.

Sec. 104. Matching funds for State and privately financed science and tech-  
nology after-school programs.

Sec. 105. Science and Technology Board of Advisors.

Sec. 106. Laboratories for science and technology excellence.

TITLE II—POST-SECONDARY COMPUTER AND INFORMATION  
SECURITY EDUCATION

Sec. 201. Computing and Information Research Working Group.

Sec. 202. Process for adoption research and a best practices voluntary guide-  
lines for laboratory facilities.

Sec. 203. Computing and information security mentoring programs for college  
students.

Sec. 204. Grants for computer equipment.

Sec. 205. Centers of Academic Computing and Information Assurance.

TITLE III—FEDERAL WORKFORCE COMPUTER AND INFORMATION  
SECURITY PROFESSIONAL DEVELOPMENT

Sec. 301. Lifelong learning in computer and information security study.

Sec. 302. Computer and information security job opportunities program.

Sec. 303. Department of Homeland Security Cybersecurity training programs  
and equipment.

Sec. 304. E-Security Fellows Program.

TITLE IV—RESEARCH

Sec. 401. National Science Foundation study on science and technology student  
retention.

Sec. 402. Challenge Grants.

Sec. 403. E-Security Fellows Program.

7 **SEC. 2. FINDINGS.**

8 Congress makes the following findings:

1           (1) The Department of Homeland Security's  
2           Cybersecurity Education & Awareness (CE&A)  
3           Branch was established under National Security  
4           Presidential Directive–54/Homeland Security Presi-  
5           dential Directive–23, which launched the 2008 Com-  
6           prehensive National Cybersecurity Initiative. There  
7           is no appropriations language that references CE&A;  
8           it is funded through the Infrastructure Protection  
9           and Information Security appropriation under the  
10          National Protection and Programs Directorate.

11          (2) The Department of Homeland Security's  
12          CE&A works with universities to attract top talent  
13          through competitive scholarship, fellowship, and in-  
14          ternship programs.

15          (3) The agency certifies more than 125 institu-  
16          tions nationwide as National Centers for Academic  
17          Excellence to teach students valuable technical skills  
18          in various disciplines of Information Assurance.

19          (4) The CE&A prepares and makes available  
20          computer and information security lesson plans. At  
21          the K–12 level, the Department has partnered with  
22          USA Today to provide lesson plans about the impor-  
23          tance of prevention of computer and digital informa-  
24          tion crimes at home and in the classroom.

1           (5) The agency initiated the IT Security Essen-  
2           tial Body of Knowledge (EBK). The National Cyber-  
3           security Division developed the EBK to establish a  
4           national baseline of the essential knowledge and  
5           skills that IT security practitioners in the public and  
6           private sector should have to perform specific roles  
7           and responsibilities.

8           (6) The challenge for computer and information  
9           security coordination and development is no single  
10          agreed upon voluntary taxonomy nor definitions to  
11          rely upon when categorizing or classifying computer  
12          or information security jobs.

13          (7) The fields of computer and information se-  
14          curity study is within the field of information assur-  
15          ance.

16          (8) The information assurance, cybersecurity  
17          and computer security workforce encompasses a va-  
18          riety of context, roles, and occupations and is too  
19          broad and diverse to be treated as a single occupa-  
20          tion or profession.

21          (9) Science, technology, engineering, and math-  
22          ematics occupations, which include computer and in-  
23          formation security experts and professionals, are ex-  
24          pected to grow by 17 percent by the year 2018 com-  
25          pared to 9.8 percent for other jobs.

1           (10) The Federal Government is experiencing a  
2 shortage of qualified professionals with expertise in  
3 computer and information security.

4           (11) Insufficiently trained, educated, or super-  
5 vised Federal computer workers can reduce the Na-  
6 tion's ability to secure computer networks from  
7 cyber attacks or incidents.

8           (12) The computing and information security  
9 workforce encompasses a variety of context, roles,  
10 and occupations and is too broad an diverse to be  
11 treated as a single occupation or profession.

12           (13) Computing and information security is not  
13 solely a technical endeavor, and thus encompasses a  
14 wide range of backgrounds and skills that will be  
15 needed in an effective national computing and infor-  
16 mation security workforce.

17           (14) The route toward professionalization of a  
18 field of study can be slow and difficult, and not all  
19 portions of a field can or should be professionalized  
20 at the same time.

21           (15) It is essential, just as it is for other dis-  
22 ciplines like medicine and the law, that academics,  
23 employers, and government share a common lan-  
24 guage to identify, train, educate, and employ com-  
25 puter and information security professionals.

1           (16) The secure management of digital sensitive  
2 information collected maintained or transmitted by  
3 Federal Government agencies, including taxpayer  
4 data, Social Security records, medical records, intel-  
5 lectual property, proprietary business information,  
6 and sensitive Government data vital to national se-  
7 curity and national defense requires an educated and  
8 well-trained, as well as supervised, Federal work-  
9 force.

10           (17) It is in the Nation's interest to promote  
11 opportunities for science and technology education  
12 and employment as a means of addressing the need  
13 to fill computer and information security jobs within  
14 the Federal Government.

15           (18) The Department of Homeland Security's  
16 role is to lead, champion, and sustain the develop-  
17 ment of a national information assurance, cybersecu-  
18 rity and computer security workforce, as well as to  
19 educate the citizenry.

20           (19) Developing, implementing, and articulating  
21 programs that protect against and respond to com-  
22 puter and information security threats and hazards  
23 to the Homeland's security.

24           (20) The Department of Homeland Security  
25 must create an agile, diverse workforce and digital

1 citizenry that are capable of sustaining a safe, se-  
2 cure, resilient computer and information security  
3 space, driven by a dynamic Department organization  
4 at the forefront of cross-sector computer and infor-  
5 mation security workforce development.

6 **TITLE I—DEPARTMENT OF**  
7 **HOMELAND SECURITY K-12**  
8 **EXCELLENCE IN SCIENCE**  
9 **AND TECHNOLOGY**

10 **SEC. 101. OFFICE OF CYBERSECURITY EDUCATION AND**  
11 **AWARENESS.**

12 (a) IN GENERAL.—Subtitle C of title II of the Home-  
13 land Security Act of 2002 (6 U.S.C. 141 et seq.) is amend-  
14 ed by adding at the end the following new section:

15 **“SEC. 230A. OFFICE OF CYBERSECURITY EDUCATION AND**  
16 **AWARENESS.**

17 “(a) ESTABLISHMENT.—There shall be within the  
18 Department an Office of Cybersecurity Education and  
19 Awareness Branch (hereinafter in this section referred to  
20 as the ‘Office’).

21 “(b) RESPONSIBILITIES.—The Office shall be respon-  
22 sible for carrying out the duties of the Office as directed  
23 by the Secretary. The Office shall also report to the Sec-  
24 retary the ongoing work of the Office. Further, the Office  
25 shall report on the statutory authority, Executive orders

1 or agency directives that guide the work of the Office. The  
2 Office shall report to the Secretary what additional au-  
3 thority is needed to fulfill the mission for the Office as  
4 outlined by the section. The Office shall also conduct re-  
5 search and make recommendations to the Secretary to the  
6 extent that the agency can effectively engage in the fol-  
7 lowing:

8           “(1) Recruiting, retaining, and sustaining the  
9           skills and knowledge of information assurance, cy-  
10          bersecurity and computer security professionals in  
11          the Department of Homeland Security, hereinafter  
12          known as the ‘Department’.

13           “(2) Supporting kindergarten through grade 12  
14          science and technology and computer and informa-  
15          tion safety education through grants, and training  
16          programs.

17           “(3) Supporting postsecondary information as-  
18          surance, cybersecurity and computer security pro-  
19          grams that provide education that benefits the mis-  
20          sion and objective of the Department regarding re-  
21          cruitment and retention of highly trained computing  
22          professionals who are work ready.

23           “(4) Promoting public knowledge of computer  
24          and information security competitions to provide  
25          computer and information security competition ad-

1 administrators, participants, and sponsors with infor-  
2 mation necessary to further broader public participa-  
3 tion in these activities.

4 “(5) Developing a guest lecturer program or  
5 part-time lecturer program comprised of information  
6 assurance, cybersecurity and computer security ex-  
7 perts in the Federal Government, academia and pri-  
8 vate sector to support education of students at insti-  
9 tutions of higher education who are pursuing de-  
10 grees in computing science.

11 “(6) Managing a Computer and Information  
12 Security Youth Training Pathway Program for sec-  
13 ondary school and postsecondary school students to  
14 work in part-time or summer positions along with  
15 Federal agency computer and information security  
16 professionals.

17 “(7) Developing programs that increase the ca-  
18 pacity of institutions defined in section 371 of the  
19 Higher Education Act of 1965—

20 “(A) Historically Black Colleges and Uni-  
21 versities;

22 “(B) professional and academic areas in  
23 which African-Americans are under represented;

24 “(C) Hispanic-serving institutions;

25 “(D) Native American colleges; and

1           “(E) rural colleges and universities.

2           “(8) Conduct research and make recommenda-  
3           tions to the Secretary on what the agency can do to  
4           increase participation of professional and academic  
5           under represented areas at minority institutions.

6           “(9) Providing support to the institutions of  
7           higher education described in subparagraphs (A)  
8           through (E) of paragraph (7) to provide course work  
9           and education in computer and information security  
10          designed to raise the number and diversity of stu-  
11          dents in the field. The Office may use the institu-  
12          tions defined under section 371 of the Higher Edu-  
13          cation Act of 1965 (20 U.S.C. 1067q) minority-serv-  
14          ing institutions are defined as follows:

15                 “(A) A part B institution (as defined in  
16                 section 322 (20 U.S.C. 1061)).

17                 “(B) A Hispanic-serving institution (as de-  
18                 fined in section 502 (20 U.S.C. 1101a)).

19                 “(C) A Tribal College or University (as de-  
20                 fined in section 316 (20 U.S.C. 1059)).

21                 “(D) An Alaska Native-serving institution  
22                 or a Native Hawaiian-serving institution (as de-  
23                 fined in section 317(b) (20 U.S.C. 1059d(b))).

24                 “(E) A Predominantly Black Institution  
25                 (as defined in subsection (c)).

1           “(F) An Asian American and Native  
2           American Pacific Islander-serving institution  
3           (as defined in subsection (c)).

4           “(G) A Native American-serving nontribal  
5           institution (as defined in subsection (c)).

6           “(c) DEFINITIONS.—In this section:

7           “(1) The term ‘information assurance, cyberse-  
8           curity and computer security program’ has the  
9           meaning given by the Secretary in consultation with  
10          the computing and information Security Post Sec-  
11          ondary Education Working Group under the bill.

12          “(2) The term ‘K–12’ may be defined by the  
13          Secretary in consultation with the K–12 Science and  
14          Technology Education Board of Advisors under sec-  
15          tion 105 of the Cyber Security Education and Fed-  
16          eral Workforce Enhancement Act.

17          “(3) The Secretary may define higher education  
18          institutions under this title using definitions found  
19          in section 371 of the Higher Education Act of 1965.

20          “(4) The term ‘professional and academic  
21          under represented areas’ means areas in which Afri-  
22          can-Americans, Hispanics, and women are under  
23          represented has the meaning given such term by the  
24          Secretary, who may consult with the Commissioner  
25          for Education Statistics and the Commissioner of

1 the Bureau of Labor Statistics. The basis of the de-  
2 termining the means should be based on most recent  
3 available satisfactory data, as computing and infor-  
4 mation security professional and academic areas in  
5 which the percentage of African-Americans, His-  
6 panics, and females who have been educated,  
7 trained, and employed is less than the percentage of  
8 African-Americans, Hispanics, and women in the  
9 general population.”.

10 (b) CLERICAL AMENDMENT.—The table of contents  
11 in section 1(b) of such Act is amended by inserting after  
12 the item relating to section 225 the following new item:

“Sec. 230A. Office of Cybersecurity Education and Awareness.”.

13 **SEC. 102. SCIENCE AND TECHNOLOGY INITIATIVE GRANTS.**

14 (a) IN GENERAL.—The Secretary of Homeland Secu-  
15 rity shall consider existing authority to make grants to  
16 secondary schools under this section, which shall be known  
17 as “Science and Technology Educators Initiative Grants”.

18 (b) SELECTION OF SCHOOLS.—If the Secretary de-  
19 termines that they have the authority they may select sec-  
20 ondary schools to receive grants under this section, the  
21 Secretary may consider the following factors:

22 (1) Whether more than 40 percent of the stu-  
23 dents at the secondary school are eligible for free or  
24 reduced price school meal programs under the Rich-

1       ard B. Russell National School Lunch Act and the  
2       Child Nutrition Act of 1966.

3               (2) The location of the secondary school is in  
4       a rural area.

5               (3) The participation of representation of pro-  
6       fessions and academic area among students which  
7       will also include home schooled, individuals residing  
8       in rural areas, and individuals attending underper-  
9       forming secondary schools.

10              (4) The location of the school in an area where  
11       the unemployment rate was not more than one per-  
12       cent higher than the national average unemployment  
13       rate during the 24-month period preceding the de-  
14       termination of eligibility under this subsection.

15              (5) The location of the secondary school in an  
16       area where the per capita income is of 80 percent  
17       or less of the national per capita income.

18       **SEC. 103. PROJECT-BASED LEARNING PROGRAM.**

19              (a) ESTABLISHMENT.—The Secretary shall direct the  
20       Office to conduct research to investigate and make rec-  
21       ommendations regarding the feasibility and existing au-  
22       thority to establish a national project-based science and  
23       technology learning program, to be known as the “K–12  
24       Science and Technology Learning Program” and make a  
25       report to both House and Senate Oversight Committees.

1 Under such research program, the Secretary shall deter-  
2 mine existing authority to—

3 (1) create State and regional workshops to  
4 train teachers in science and technology project-  
5 based learning;

6 (2) establish between institutions of higher edu-  
7 cation, businesses, and local public and private edu-  
8 cational agencies that serve students comprised of  
9 40 percent or more of professional and academic  
10 under represented areas to provide materials and  
11 teaching aids to teachers who successfully complete  
12 the science and technology project-based learning  
13 program under this section;

14 (3) identify no cost or low cost summer and  
15 after school science and technology education pro-  
16 grams and broadly disseminate that information to  
17 the public; and

18 (4) make grants to local educational agencies to  
19 support the participation of teachers of elementary  
20 school and secondary school in science and tech-  
21 nology training programs by providing travel and en-  
22 rollment expenses, with a priority given to teachers  
23 who work in schools serving neglected, delinquent,  
24 migrant students, English learners, at-risk students,

1 and Native Americans, as determined by the Sec-  
2 retary.

3 (b) AUTHORITY.—The Secretary shall have the au-  
4 thority under this statute to conduct a limited pilot project  
5 to test recommendations on possible programs that would  
6 be low-cost but have the greatest impact on instilling the  
7 importance of technology and science education.

8 (c) REPORT TO CONGRESS.—The Secretary shall  
9 submit to Congress an annual report on the program es-  
10 tablished under this section.

11 (d) PROJECT-BASED SCIENCE AND TECHNOLOGY  
12 LEARNING DEFINED.—In this section, the term “project-  
13 based science and technology learning” means a system-  
14 atic teaching method that engages students in learning es-  
15 sential science, technology, engineering and mathematics  
16 through knowledge and life-enhancing skills through an  
17 extended, student-influenced inquiry process structured  
18 around complex, authentic questions and carefully de-  
19 signed products and tasks developed specifically for edu-  
20 cation.

21 **SEC. 104. MATCHING FUNDS FOR STATE AND PRIVATELY**  
22 **FINANCED SCIENCE AND TECHNOLOGY**  
23 **AFTER-SCHOOL PROGRAMS.**

24 (a) IN GENERAL.—The Secretary of Homeland Secu-  
25 rity shall provide matching funds to local educational

1 agencies for after-school programs dedicated to science,  
2 technology, engineering, and math in an amount equal to  
3 the amount provided to the program by a State, local, trib-  
4 al, or territorial government or by a nonprofit or private  
5 entity.

6 (b) CRITERIA.—In selecting programs for which to  
7 provide funds under this section, the Secretary shall con-  
8 sider—

9 (1) the number of students served by the pro-  
10 grams; and

11 (2) the participation in the programs of stu-  
12 dents from populations referred to in section 230A  
13 of the Homeland Security Act of 2002, as added by  
14 section 101.

15 (c) LIMITATION ON AMOUNT OF FUNDING.—For any  
16 fiscal year, no individual school’s after-school program  
17 shall receive more than \$5,000 under this section.

18 **SEC. 105. SCIENCE AND TECHNOLOGY BOARD OF ADVI-**  
19 **SORS.**

20 (a) ESTABLISHMENT.—There is established in the  
21 Department of Homeland Security the “Research K–12  
22 Science and Technology Education Board of Advisors”  
23 (hereinafter in this section referred to as the “Board”).

24 (b) MEMBERSHIP.—

1           (1) COMPOSITION.—The Board shall be com-  
2           posed of 15 members appointed by the Secretary of  
3           Homeland Security, all of whom shall have K–12  
4           education expertise in programs. The Secretary shall  
5           appoint members based on the following qualifica-  
6           tions:

7                   (A) Members of the Board shall have expe-  
8                   rience in K–12 science, technology, engineering,  
9                   and mathematics education programs.

10                   (B) Members of the Board shall have expe-  
11                   rience in training K–12 educators on providing  
12                   science and technology instruction.

13                   (C) Members of the Board shall have expe-  
14                   rience in the promotion of science and tech-  
15                   nology education among under represented pop-  
16                   ulations, as defined by section 230A of the  
17                   Homeland Security Act of 2002, as added by  
18                   section 101.

19           (2) DEADLINE FOR APPOINTMENT.—All mem-  
20           bers of the Board shall be appointed not later than  
21           60 days after the date of the enactment of this Act.

22           (3) VACANCIES.—Any vacancy in the member-  
23           ship of the Board shall not affect its powers and  
24           shall be filled in the same manner in which the origi-  
25           nal appointment was made.

1 (4) COMPENSATION.—

2 (A) IN GENERAL.—Members of the Board  
3 shall not receive any compensation for their  
4 service.

5 (B) TRAVEL EXPENSES.—While away from  
6 their homes or regular places of business in the  
7 performance of services for the Board, members  
8 of the Board shall be allowed travel expenses,  
9 including per diem in lieu of subsistence, in the  
10 same manner as persons employed intermit-  
11 tently in the Government service are allowed ex-  
12 penses under section 5703(b) of title 5, United  
13 States Code.

14 (C) PROHIBITION OF CONSULTANT OR  
15 CONTRACTING WORK.—No member of the  
16 Board while serving in this capacity or for 1  
17 year following departure from the Board may  
18 work as a consultant or contract worker for the  
19 Department of Homeland Security in a position  
20 related to the work of the Board or member  
21 agency that participates as a member of the  
22 Board.

23 (c) RESPONSIBILITIES.—The responsibilities of the  
24 Board are to research and make recommendations to the  
25 Secretary on—

1           (1) the status of K–12 science and technology  
2 education domestically and internationally;

3           (2) how to increase the quality and diversity of  
4 science and technology curriculum;

5           (3) promoting K–12 science and technology  
6 competitions;

7           (4) establishing a virtual network to support  
8 teacher and student science and technology edu-  
9 cation and development;

10           (5) ascertaining, evaluating, and reporting on  
11 best practices for project-based science and tech-  
12 nology learning (as such term is defined in section  
13 103(c)); and

14           (6) identifying K–12 science and technology  
15 education efforts that are successful in engaging  
16 youth, with proven competence in engaging females,  
17 minorities, individuals residing in rural areas, indi-  
18 viduals residing in majority minority districts, home  
19 schooled students.

20           (d) CHAIR.—The Chair of the Board shall be des-  
21 ignated by the Secretary from among the members of the  
22 Board.

23           (e) MEETINGS.—

24           (1) INITIAL MEETING.—The Board shall meet  
25 and begin the operations of the Board by not later

1 than 90 days after the date of the enactment of this  
2 Act.

3 (2) SUBSEQUENT MEETINGS.—After its initial  
4 meeting, the Board shall set the time and place of  
5 its next meeting. The Board can upon the call of the  
6 chairman or a majority of its members meet.

7 (3) QUORUM.—A majority of the Board shall  
8 constitute a quorum.

9 (4) VOTING.—Proxy voting shall be allowed on  
10 behalf of a member of the Board.

11 (5) RULES OF PROCEDURE.—The Board may  
12 establish rules for the conduct of the Board's busi-  
13 ness, if such rules are not inconsistent with this sec-  
14 tion or other applicable law.

15 (f) POWERS.—

16 (1) HEARINGS AND EVIDENCE.—The Board or,  
17 on the authority of the Board, any subcommittee or  
18 member thereof, may, for the purpose of carrying  
19 out this title hold such hearings and sit and act at  
20 such times and places, take such testimony, receive  
21 such evidence, administer such oaths.

22 (2) FEDERAL AGENCY STAFF.—The Secretary  
23 shall make decisions regarding Federal agency staff  
24 to be detailed to support the work of the Board.

1           (3) CONTRACT AUTHORITY.—The Board may  
2 enter into contracts with the approval of the Sec-  
3 retary to such extent and in such amounts as nec-  
4 essary for the Board to discharge its duties under  
5 this section.

6           (4) INFORMATION FROM FEDERAL AGENCIES.—

7           (A) IN GENERAL.—After providing notice  
8 to the Secretary who may provide staff from  
9 the Department to meet the staffing needs of  
10 the Board. After 10 working days following no-  
11 tice to the Secretary the Board is authorized to  
12 secure directly from any executive department,  
13 bureau, agency, board, office, independent es-  
14 tablishment, or instrumentality of the Govern-  
15 ment, information, suggestions, estimates, and  
16 statistics for the purposes of this title. Each de-  
17 partment, bureau, agency, board, office, inde-  
18 pendent establishment, or instrumentality shall,  
19 to the extent authorized by law, furnish such  
20 information, suggestions, estimates, and statis-  
21 tics directly to the Board, upon request made  
22 by the chairman, the chairman of any sub-  
23 committee created by a majority of the Board,  
24 or any member designated by a majority of the  
25 Board.

1 (B) RECEIPT, HANDLING, STORAGE, AND  
2 DISSEMINATION.—Information shall only be re-  
3 ceived, handled, stored, and disseminated by  
4 members of the Board and its staff consistent  
5 with all applicable statutes, regulations, and  
6 Executive orders.

7 (5) ASSISTANCE FROM FEDERAL AGENCIES.—

8 (A) GENERAL SERVICES ADMINISTRA-  
9 TION.—The Administrator of General Services  
10 shall provide to the Board on a reimbursable  
11 basis administrative support and other services  
12 for the performance of the Board's functions.

13 (B) OTHER DEPARTMENTS AND AGEN-  
14 CIES.—In addition to the assistance prescribed  
15 in subparagraph (A), departments and agencies  
16 of the United States may provide to the Board  
17 such services, funds, facilities, staff, and other  
18 support services as they may determine advis-  
19 able and as may be authorized by law.

20 (C) POSTAL SERVICES.—The Board may  
21 use the United States mails in the same man-  
22 ner and under the same conditions as depart-  
23 ments and agencies of the United States.

24 (g) STAFF.—

25 (1) IN GENERAL.—

1 (A) APPOINTMENT AND COMPENSATION.—

2 The Chair, in accordance with rules agreed  
3 upon by the Board, may appoint and fix the  
4 compensation of a staff director and such other  
5 personnel as may be necessary to enable the  
6 Board to carry out its functions, without regard  
7 to the provisions of title 5, United States Code,  
8 governing appointments in the competitive serv-  
9 ice, and without regard to the provisions of  
10 chapter 51 and subchapter III of chapter 53 of  
11 such title relating to classification and General  
12 Schedule pay rates, except that no rate of pay  
13 fixed under this subsection may exceed the  
14 equivalent of that payable for a position at level  
15 V of the Executive Schedule under section 5316  
16 of title 5, United States Code.

17 (B) PERSONNEL AS FEDERAL EMPLOY-  
18 EES.—

19 (i) IN GENERAL.—The executive di-  
20 rector and any personnel of the Board who  
21 are employees shall be employees under  
22 section 2105 of title 5, United States  
23 Code, for purposes of chapters 63, 81, 83,  
24 84, 85, 87, 89, and 90 of that title.

1 (ii) MEMBERS OF THE BOARD.—

2 Clause (i) shall not be construed to apply  
3 to members of the Board.

4 (2) DETAILEES.—Any Federal Government em-  
5 ployee may be detailed to the Board without reim-  
6 bursement from the Board, and such detailee shall  
7 retain the rights, status, and privileges of his or her  
8 regular employment without interruption.

9 (3) ADMINISTRATIVE SUPPORT FROM THE DE-  
10 PARTMENT.—At the request of the Board, the Sec-  
11 retary of Homeland Security shall provide the Board  
12 with Administrative support necessary for the Board  
13 to carry out its duties under this title.

14 (h) REPORTS.—

15 (1) QUARTERLY REPORTS.—The Board shall  
16 submit to the Secretary of Homeland Security quar-  
17 terly reports on the activities of the Board.

18 (2) FINAL REPORT.—Not later than two years  
19 after the date of the enactment of this Act, the  
20 Board shall submit to the Secretary a final report  
21 containing such findings conclusions, and rec-  
22 ommendations as have been agreed to by a majority  
23 of Board members.

24 (i) APPLICABILITY OF FACCA.—

1           (1) IN GENERAL.—Nothing in the Federal Ad-  
2           visory Committee Act (5 U.S.C. App.) shall apply to  
3           the Board.

4           (2) PUBLIC MEETINGS AND RELEASE OF PUB-  
5           LIC VERSIONS OF REPORTS.—The Board shall—

6                   (A) hold public hearings and meetings to  
7                   the extent appropriate; and

8                   (B) release public versions of the reports  
9                   required under subsection (h).

10          (3) PUBLIC HEARINGS.—Any public hearings of  
11          the Board shall be conducted in a manner consistent  
12          with the protection of information provided to or de-  
13          veloped for or by the Board as required by any ap-  
14          plicable statute, regulation, or Executive order.

15          (j) TERMINATION.—The Board, and all the authori-  
16          ties of this title, shall terminate two years after the date  
17          of the Board's first meeting, which shall take place 90  
18          days following its appointment.

19          (1) IN GENERAL.—The Board and all the au-  
20          thorities under this section shall terminate 60 days  
21          after the date on which the final report is submitted  
22          under subsection (h)(2).

23          (2) ADMINISTRATIVE ACTIVITIES BEFORE TER-  
24          MINATION.—The Board may use the 60-day period  
25          referred to in paragraph (1) for the purpose of con-

1 including its activities, including providing testimony  
2 to committees of Congress concerning its reports  
3 and disseminating the final report.

4 (k) FUNDING.—There is authorized to be appro-  
5 priated such sums as may be necessary to carry out this  
6 section. Amounts made available pursuant to this sub-  
7 section shall remain available until the termination of the  
8 Board.

9 **SEC. 106. LABORATORIES FOR SCIENCE AND TECHNOLOGY**

10 **EXCELLENCE.**

11 The Secretary of Homeland Security shall determine  
12 if existing authority allows the agency to make grants to  
13 local education agencies for the purpose of supplying lab-  
14 oratory facilities at secondary schools to promote the  
15 teaching of science, technology, engineering, and mathe-  
16 matics. If the Secretary determines that the authority does  
17 not exist shall make a report to congressional oversight  
18 committees detailing the limitation in agency authority to  
19 conduct activity under this section and make recommenda-  
20 tions on the benefits if any should the agency have the  
21 authority to engage in the activity outlined in this section.

1 **TITLE II—POST-SECONDARY**  
2 **COMPUTER AND INFORMA-**  
3 **TION SECURITY EDUCATION**

4 **SEC. 201. COMPUTING AND INFORMATION RESEARCH**  
5 **WORKING GROUP.**

6 (a) ESTABLISHMENT.—There is hereby established in  
7 the Department of Homeland Security the Computing and  
8 Information Security Post-Secondary Education Working  
9 Group, hereafter in this section referred to as the “Work-  
10 ing Group”.

11 (b) RESPONSIBILITIES.—The Working Group shall  
12 conduct research and—

13 (1) assist the Secretary in developing voluntary  
14 guidelines that could serve as guidance to Federal  
15 civil agency training programs, computer and infor-  
16 mation security certification authorities, and accredi-  
17 tation bodies seeking guidance on developing, en-  
18 hancing, or sustaining competitive information secu-  
19 rity; and

20 (2) make recommendations to the Secretary re-  
21 garding—

22 (A) the state of the computing and infor-  
23 mation security workforce development;

24 (B) evaluations and reports on the advan-  
25 tages, disadvantages, and approaches to profes-

1           sionalizing the Nation’s computing and infor-  
2           mation security workforce;

3           (C) criteria that can be used to identify  
4           which, if any, specialty areas may require  
5           professionalization;

6           (D) criteria for evaluating different ap-  
7           proaches and tools for professionalization;

8           (E) techniques that enhance the efficiency  
9           and effectiveness of computing and information  
10          security workers;

11          (F) better tools and approaches for risk  
12          identification and assessment;

13          (G) improved system design and develop-  
14          ment;

15          (H) creation of better incentives for de-  
16          ployment of better computing and information  
17          security technologies;

18          (I) improvements in end user behaviors  
19          through training and better coordination among  
20          network managers;

21          (J) core curriculum requirements for com-  
22          puting and information security training;

23          (K) efficacy and efficiencies of taxonomy  
24          and definitions for computer and information  
25          security;

1 (L) guidelines for accreditations and cer-  
2 tification of computing and information security  
3 college and university programs;

4 (M) identifying the role of mentors in the  
5 retention of students enrolled in computing and  
6 technology programs at institutions of higher  
7 education who complete degree programs;

8 (N) remote access to computing and infor-  
9 mation security education and training through  
10 the Internet; and

11 (O) institution of higher education funding  
12 and research needs.

13 (c) DEADLINE FOR SUBMITTAL OF RESEARCH  
14 FUNDING AND RECOMMENDATIONS.—

15 (1) INITIAL RESEARCH.—The Working Group  
16 shall submit to the Secretary an initial research plan  
17 that will guide the work of the Working Group.

18 (2) OTHER RESEARCH RECOMMENDATIONS.—  
19 The Working Group shall provide the Secretary a  
20 list of other areas that require research to accom-  
21 plish the purpose of the agency's goal of providing  
22 cyber security protection for the agency. The Work-  
23 ing Group shall provide a description of the pro-  
24 posed research and the purpose of the research as  
25 it relates to the goals of cybersecurity of the agency.

1           (3) INITIAL RECOMMENDATIONS.—The Work-  
2           ing Group shall submit to the Secretary initial rec-  
3           ommendations under this section by not later than  
4           nine months after the date on which all of the mem-  
5           bers of the Working Group are appointed.

6           (4) OTHER RECOMMENDATIONS.—Not later  
7           than six months after all members of the Working  
8           Group are appointed, the Working Group shall sub-  
9           mit to the Secretary research and recommendations  
10          on the effectiveness of Federal civil agency computer  
11          and information security training programs, includ-  
12          ing an evaluation of certification authorities and  
13          their role in providing work ready staff to fill posi-  
14          tions with the agency.

15          (5) SUBSEQUENT RESEARCH AND REC-  
16          OMMENDATIONS.—Not later than one year after the  
17          date of the submittal of the initial research and rec-  
18          ommendations under paragraph (1), and annually  
19          thereafter, the Working Group shall submit to the  
20          Secretary subsequent research and recommendations  
21          under this section and an update on the progress  
22          made toward a well trained and sustainable Depart-  
23          ment computer and information workforce.

24          (d) MEMBERSHIP.—

1           (1) CHAIR.—The Chair of the Working Group  
2 shall be the Director of the National Institute of  
3 Standards and Technology or the Director’s des-  
4 ignee.

5           (2) OTHER MEMBERS.—The Working Group  
6 shall be composed of 21 members, who are ap-  
7 pointed by the Secretary of Homeland Security in  
8 consultation with the Director of NIST and the head  
9 of the entity represented by the member.

10          (3) APPOINTMENT.—All appointments are for a  
11 term of 2 years with one reappointment for an addi-  
12 tional 2 years.

13          (4) QUORUM.—A majority of the members of  
14 the Working Group shall constitute a quorum.

15          (e) NO COMPENSATION FOR SERVICE.—While away  
16 from their homes or regular places of business in the per-  
17 formance of services for the Commission, members of the  
18 Commission shall be allowed travel expenses, including per  
19 diem in lieu of subsistence, in the same manner as persons  
20 employed intermittently in the Government service are al-  
21 lowed expenses under section 5703(b) of title 5, United  
22 States Code.

23          (f) TECHNICAL SUPPORT FROM THE DEPARTMENT  
24 OF HOMELAND SECURITY.—At the request of the Work-  
25 ing Group, the Secretary of Homeland Security shall pro-

1 vide the Working Group with technical support necessary  
2 for the Working Group to carry out its duties under this  
3 section.

4 (g) INTELLECTUAL PROPERTY RIGHTS.—No private-  
5 sector individual or entity shall obtain any intellectual  
6 property rights to any guidelines or recommendations nor  
7 the contents of any guideline (or any modification to any  
8 guideline) adopted by the Secretary under this section.

9 (h) REPORT.—Not later than one year after the date  
10 of the enactment of this Act, the Working Group shall sub-  
11 mit to the Secretary a report containing researching find-  
12 ings, an outline for other areas requiring research and why  
13 as well as recommendations of the Working Group.

14 (i) SUBMITTAL OF RECOMMENDATIONS TO CON-  
15 GRESS.—Not later than 18 months after the date of the  
16 enactment of this Act, the Secretary shall submit to the  
17 Committee on Homeland Security of the House of Rep-  
18 resentatives and the Committee on Homeland Security  
19 and Governmental Affairs of the Senate a report on the  
20 research findings, an outline of other areas requiring re-  
21 search and why and recommendations for furthering the  
22 cybersecurity of the agency.

23 (j) TREATMENT OF RECOMMENDATIONS.—The Sec-  
24 retary has the benefit of the Working Group's work which  
25 the Secretary may accept, reject, or modify. The Secretary

1 shall not be bound by the recommendations of the Work-  
2 ing Group.

3 (k) PUBLICATION OF RECOMMENDATIONS IN FED-  
4 ERAL REGISTER.—The Secretary shall approve the publi-  
5 cation of grant application guidelines in the Federal Reg-  
6 ister by not later than 90 days after receiving the report  
7 submitted under subsection (h).

8 (l) APPLICABILITY OF FACA.—Nothing in the Fed-  
9 eral Advisory Committee Act (5 U.S.C. App.; relating to  
10 the termination of advisory committees) shall apply to the  
11 Working Group.

12 **SEC. 202. PROCESS FOR ADOPTION RESEARCH AND A BEST**  
13 **PRACTICES VOLUNTARY GUIDELINES FOR**  
14 **LABORATORY FACILITIES.**

15 (a) ESTABLISHMENT OF THE POST-SECONDARY  
16 LABORATORY DEVELOPMENT TASK FORCE.—The Sec-  
17 retary of Homeland Security shall establish a “Post-Sec-  
18 ondary Laboratory Research Development Task Force”  
19 (hereinafter in this section referred to as the “Develop-  
20 ment Task Force”).

21 (b) RESPONSIBILITIES.—The Development Task  
22 Force shall conduct research for and make recommenda-  
23 tions to the Secretary regarding best practices voluntary  
24 guidelines for college and university laboratory facilities  
25 for education and research purposes related to information

1 assurance, cybersecurity and computing security. Such re-  
2 search on what baseline equipment, capacity, skilled in-  
3 struction, and certification may be needed for a set of best  
4 practices voluntary guidelines for colleague or university  
5 laboratories and make recommendations on the best meth-  
6 ods of assuring that the greatest number of institutions  
7 have access to facilities that meet the baseline best prac-  
8 tices regarding—

9           (1) qualifications for laboratories for the pur-  
10        pose of providing education or instruction in com-  
11        puting security, computer networks, enterprises,  
12        informatics, and other systems designated by the  
13        Secretary;

14           (2) types of software;

15           (3) types of hardware;

16           (4) types of firmware;

17           (5) security applications, including firewalls,  
18        whole hat hackers, red teams, and blue teams;

19           (6) security protocols needed to protect the  
20        physical and computer resources of the laboratory;

21           (7) accreditation and certification of college and  
22        university computer and information security labora-  
23        tories;

24           (8) best practices for—

1 (A) public-private collaborations to support  
2 secondary and post-secondary laboratory facili-  
3 ties for computer or information security;

4 (B) visiting guest lecture programs for  
5 business and Government information tech-  
6 nology security experts; and

7 (C) developing real world laboratory exer-  
8 cise and proficiency measures; and

9 (9) how best to recruit and retain instructors  
10 with requisite degrees to teach computer and infor-  
11 mation security courses to undergraduate and grad-  
12 uate students.

13 (c) MEMBERSHIP.—

14 (1) MEMBERS.—The Development Task Force  
15 shall be composed of 19 members, including the  
16 Chair. The Secretary of Homeland Security, in con-  
17 sultation with the head of the entity represented by  
18 the member agencies, shall appoint members. The  
19 Secretary shall appoint a chair from among the  
20 members of the Development Task Force. Such  
21 members shall consist of one representative of each  
22 of the following agencies:

23 (A) The White House Office of Science  
24 and Technology Policy.

1 (B) The Office of the Director of National  
2 Intelligence.

3 (C) The Department of Energy.

4 (D) The Defense Advanced Research  
5 Projects Agency.

6 (E) The Department of Commerce.

7 (F) The National Institutes of Health.

8 (G) The National Institute of Science and  
9 Technology.

10 (H) The National Science Foundation.

11 (I) The Director of the Office of Personnel  
12 Management.

13 (2) OTHER MEMBERS.—The Secretary shall  
14 consider for the other members of the Development  
15 Task Force representatives from organizations that  
16 advocate and promote professional development of  
17 professional and academic under represented areas  
18 and organizations with the mission of promoting  
19 professional development and academic excellence in  
20 information assurance, cybersecurity and computing  
21 security:

22 (A) Organizations with the mission of ad-  
23 vancing computing as a science and profession.

24 (B) Organizations that promote informa-  
25 tion system security education.

1           (C) Professional associations that are well  
2 established and broadly recognized for the ad-  
3 vancement of technology.

4           (D) Professional associations that rep-  
5 resent professionals and academics referred to  
6 in section 230A of the Homeland Security Act  
7 of 2002, as added by section 101.

8           (E) K–12 science and technology programs  
9 that conduct successful after school and sum-  
10 mer programs for under represented popu-  
11 lations, rural communities and serve commu-  
12 nities where unemployment is at least two per-  
13 cent higher than the national average.

14           (F) Organizations that promote education  
15 of Native Americans or other indigenous peo-  
16 ples of the United States or its territories.

17           (G) Regional diversity of public and pri-  
18 vate school districts that excel at science and  
19 technology education.

20           (3) QUORUM.—A majority of the members of  
21 the Development Task Force shall constitute a  
22 quorum.

23           (4) VOTING.—Proxy voting shall be allowed on  
24 behalf of a member of the Development Task Force.

1           (5) RULES OF PROCEDURE.—The Development  
2           Task Force may establish rules for the conduct of  
3           the Development Task Force’s business, if such  
4           rules are not inconsistent with this section or other  
5           applicable law.

6           (d) POWERS.—

7           (1) HEARINGS AND EVIDENCE.—The Develop-  
8           ment Task Force or, on the authority of the Devel-  
9           opment Task Force, or any subcommittee or mem-  
10          ber thereof, may, for the purpose of carrying out  
11          this section hold such hearings and sit and act at  
12          such times and places, take such testimony, receive  
13          such evidence, and administer such oaths.

14          (2) CONTRACT AUTHORITY.—After giving no-  
15          tice to the Secretary who may substitute agency  
16          staff with the requisite skills to fill a position needed  
17          by the Board at no additional cost to the Board.  
18          After 10 working days following notice to the Sec-  
19          retary the Development Task Force may enter into  
20          contracts to such extent and in such amounts as  
21          necessary for the Development Task Force to dis-  
22          charge its duties under this section.

23          (3) INFORMATION FROM FEDERAL AGENCIES.—

24                  (A) IN GENERAL.—The Development Task  
25          Force is authorized to secure directly from any

1 executive department, bureau, agency, board,  
2 office, independent establishment, or instrumen-  
3 tality of the Government information, sugges-  
4 tions, estimates, and statistics for the purposes  
5 of this section. Each department, bureau, agen-  
6 cy, board, office, independent establishment, or  
7 instrumentality shall, to the extent authorized  
8 by law, furnish such information, suggestions,  
9 estimates, and statistics directly to the Board,  
10 upon request made by the chairman, the chair-  
11 man of any subcommittee created by a majority  
12 of the Board, or any member designated by a  
13 majority of the Board.

14 (B) RECEIPT, HANDLING, STORAGE, AND  
15 DISSEMINATION.—Information shall only be re-  
16 ceived, handled, stored, and disseminated by  
17 members of the Board and its staff consistent  
18 with all applicable statutes, regulations, and  
19 Executive orders.

20 (4) ASSISTANCE FROM FEDERAL AGENCIES.—

21 (A) GENERAL SERVICES ADMINISTRA-  
22 TION.—The Administrator of General Services  
23 shall provide to the Development Task Force on  
24 a reimbursable basis administrative support and

1 other services for the performance of the  
2 Board's functions.

3 (B) OTHER DEPARTMENTS AND AGEN-  
4 CIES.—In addition to the assistance prescribed  
5 in subparagraph (A), departments and agencies  
6 of the United States may provide to the Board  
7 such services, funds, facilities, staff, and other  
8 support services as they may determine advis-  
9 able and as may be authorized by law.

10 (C) POSTAL SERVICES.—The Development  
11 Task Force may use the United States mails in  
12 the same manner and under the same condi-  
13 tions as departments and agencies of the  
14 United States.

15 (e) STAFF.—

16 (1) IN GENERAL.—While away from their  
17 homes or regular places of business in the perform-  
18 ance of services for the Commission, members of the  
19 Commission shall be allowed travel expenses, includ-  
20 ing per diem in lieu of subsistence, in the same man-  
21 ner as persons employed intermittently in the Gov-  
22 ernment service are allowed expenses under section  
23 5703(b) of title 5, United States Code.

24 (2) PERSONNEL AS FEDERAL EMPLOYEES.—

1           (A) IN GENERAL.—The executive director  
2           and any personnel of the Development Task  
3           Force who are employees shall be employees  
4           under section 2105 of title 5, United States  
5           Code, for purposes of chapters 63, 81, 83, 84,  
6           85, 87, 89, and 90 of that title.

7           (B) MEMBERS OF THE DEVELOPMENT  
8           TASK FORCE.—Subparagraph (A) shall not be  
9           construed to apply to members of the Develop-  
10          ment Task Force.

11          (3) DETAILEES.—Any Federal Government em-  
12          ployee may be detailed to the Board without reim-  
13          bursement from the Development Task Force, and  
14          such detailee shall retain the rights, status, and  
15          privileges of his or her regular employment without  
16          interruption.

17          (f) NO COMPENSATION FOR SERVICE.—Members of  
18          the Development Task Force shall not receive any com-  
19          pensation for their service, but shall be paid travel ex-  
20          penses, including per diem in lieu of subsistence, at rates  
21          authorized for employees of agencies under subchapter I  
22          of chapter 57 of title 5, United States Code, while away  
23          from their homes or regular places of business in the per-  
24          formance of services for the Development Task Force.

1 (g) PROHIBITION OF CONSULTANT OR CONTRACTING  
2 WORK.—No member of the Development Task Force  
3 while serving in this capacity or for 1 year following depar-  
4 ture from the Development Task Force may work as a  
5 consultant or contract worker for the Department of  
6 Homeland Security in a position related to the work of  
7 the Development Task Force or member agency that par-  
8 ticipates as a member of the Development Task Force.

9 (h) REPORT.—The Development Task Force shall  
10 submit a report to the Secretary of Homeland Security;  
11 a report on research findings, best practices voluntary  
12 guidelines and recommendations to the Secretary. The re-  
13 port shall be in unclassified form but may include a classi-  
14 fied annex.

15 (i) SECRETARY OF HOMELAND SECURITY REPORT.—  
16 The Secretary shall submit to Congress a report on the  
17 work of the Development Task Force’s research into best  
18 practices voluntary guidelines, areas that require addi-  
19 tional study and a set of recommendations. The Secretary  
20 shall indicate to the Congress which Development Task  
21 Force recommendations have been implemented, which  
22 will be implemented, or which will be rejected and why.

23 (j) TECHNICAL SUPPORT FROM THE DEPART-  
24 MENT.—At the request of Development Task Force the  
25 Secretary of Homeland Security shall provide the Develop-

1 ment Task Force with technical support necessary for the  
2 Development Task Force to carry out its duties under this  
3 section.

4 (k) INTELLECTUAL PROPERTY.—No private-sector  
5 individual or entity serving on the Development Task  
6 Force shall obtain any intellectual property rights to any  
7 guidelines or recommendations that derive from the work  
8 of the Development Task Force or any guidelines (or any  
9 modification to any guidelines) based on the work of the  
10 Development Task Force.

11 (l) PROHIBITION OF CONSULTANT OR CONTRACTING  
12 WORK.—No member of the Development Task Force  
13 while serving in this capacity or for 1 year following depar-  
14 ture from the Development Task Force may work as a  
15 consultant or contract worker in a position related to the  
16 direct work of the Development Task Force to the Depart-  
17 ment of Homeland Security or member agency that par-  
18 ticipates as a member of the Development Task Force.

19 **SEC. 203. COMPUTING AND INFORMATION SECURITY MEN-**  
20 **TORING PROGRAMS FOR COLLEGE STU-**  
21 **DENTS.**

22 (a) OFFICE OF CYBERSECURITY AND INFORMATION  
23 SECURITY PROFESSIONAL'S MENTORING PROGRAM.—

24 (1) IN GENERAL.—Subtitle C of title II of the  
25 Homeland Security Act of 2002 (6 U.S.C. 141 et

1 seq.) is further amended by adding at the end the  
2 following new section:

3 **“SEC. 230B. OFFICE OF COMPUTING AND INFORMATION SE-**  
4 **CURITY PROFESSIONAL’S MENTORING PRO-**  
5 **GRAM.**

6 “(a) ESTABLISHMENT.—There is in the Department  
7 an Office of Computing and Information Security Profes-  
8 sional’s Mentoring Program. The head of the office is the  
9 Mentoring Coordinator, who shall be appointed by the Sec-  
10 retary.

11 “(b) RESPONSIBILITIES.—The Mentoring Coordi-  
12 nator shall be responsible for working with outreach to  
13 institution of higher education, critical infrastructure own-  
14 ers, and the heads of Federal departments and agencies  
15 to develop and promote the participation of professionals  
16 as volunteer mentors to—

17 “(1) undergraduate students at institutions of  
18 higher education who are enrolled in the third or  
19 fourth year of a program of education leading to a  
20 degree in computing or information security;

21 “(2) students enrolled in a program of edu-  
22 cation leading to a doctoral degree in computing or  
23 information security; and

1           “(3) new employees of Federal departments and  
2 agencies whose primary responsibilities relate to  
3 computing or information security.”.

4           (2) CLERICAL AMENDMENT.—The table of con-  
5 tents in section 1(b) of such Act is further amended  
6 by inserting after the item relating to section 230A  
7 the following new item:

“Sec. 230B. Office of Computing and Information Security Professional’s Men-  
toring Program.”.

8           (b) GRANT PROGRAM.—

9           (1) IN GENERAL.—The Secretary of Homeland  
10 Security shall determine existing authority to make  
11 grants to covered institutions of higher learning for  
12 the establishment of mentoring programs for under-  
13 graduates enrolled in programs or courses of edu-  
14 cation in information assurance, cybersecurity or  
15 computing security programs.

16           (2) COVERED INSTITUTIONS OF HIGHER  
17 LEARNING.—For purposes of this subsection, the  
18 term “covered institution of higher learning” means  
19 those institutions as defined in section 371 of the  
20 Higher Education Act of 1965 and listed in section  
21 101 of this bill.

22 **SEC. 204. GRANTS FOR COMPUTER EQUIPMENT.**

23           (a) GRANTS.—The Secretary of Homeland Security  
24 may make grants to post-secondary institutions that offer

1 courses or degrees in computing or information security  
2 to be used to establish or equip a computer laboratory to  
3 be made available to students and faculty for both teach-  
4 ing and research purposes.

5 (b) TECHNICAL SUPPORT.—The Secretary shall en-  
6 sure that each recipient of a grant under this section also  
7 receives technical support on the use and proper function  
8 of equipment and software.

9 (c) PUBLICATION IN FEDERAL REGISTER.—The Sec-  
10 retary shall publish the name of each institution of higher  
11 education that receives a grant under this section and the  
12 amount of such grant.

13 (d) QUALIFICATION.—In making grants under this  
14 section, the Secretary—

15 (1) shall take into consideration whether more  
16 than 50 percent of the students at an institution are  
17 taking online or distance learning computer science  
18 and information security courses; and

19 (2) may establish guidance to institutions for  
20 entering into laboratory facilities sharing agreements  
21 to allow institutions to qualify for grants under this  
22 section.

1 **SEC. 205. CENTERS OF ACADEMIC COMPUTING AND INFOR-**  
2 **MATION ASSURANCE.**

3 (a) PROGRAM ESTABLISHED.—The Secretary of  
4 Homeland Security shall establish a program for Centers  
5 of Academic Computer and Information Assurance Dis-  
6 tinction.

7 (b) DESIGNATION OF CENTERS.—

8 (1) IN GENERAL.—The Secretary may des-  
9 ignate five colleges or universities as Centers of Dis-  
10 tinction for Academic Computing and Information  
11 Security Assurance each year with no limit to the  
12 total number of such Centers that may be estab-  
13 lished. The Secretary may make public the Centers  
14 for Distinction in Academic Computing and Infor-  
15 mation Security Assurance.

16 (2) REVOCATION OF DESIGNATIONS.—The Sec-  
17 retary may revoke the designation of a Center of  
18 Distinction for Academic Computing and Informa-  
19 tion Security Assurance.

20 (3) CRITERIA.—The Secretary shall make avail-  
21 able information regarding the criteria for desig-  
22 nating an institution as a Center of Distinction for  
23 Academic Computing and Information Security As-  
24 surance under this section.

25 (4) DISTANCE LEARNING.—In designating Cen-  
26 ters under this section, the Secretary shall consider

1 the number of students who are enrolled in distance  
2 learning computer or information security courses  
3 and whether collaborations for in laboratory instruc-  
4 tion through shared arrangements with established  
5 information assurance, cybersecurity computing se-  
6 curity programs at secondary education programs  
7 that laboratory facilities that meet best practices as  
8 outlined by the Secretary would be sufficient to meet  
9 the requirements established under this section.

10 (c) OUTREACH.—The Secretary shall identify and re-  
11 port on the success of efforts to reach under represented  
12 populations in the field of computing and information se-  
13 curity through work with institutions as defined under sec-  
14 tion 371 of the Higher Education Act of 1965 listed in  
15 section 101 of this bill.

16 (d) REPORT.—Not later than 220 days after the date  
17 of the enactment of this Act, the Secretary shall submit  
18 to Congress recommendations regarding distance learning  
19 computer and information security programs for meeting  
20 the cybersecurity professional requirements of the agency.

21 (e) CONSIDERATION OF PROGRAMS.—The Secretary  
22 may consider the following when making grants to post-  
23 secondary education institutions and private sector enti-  
24 ties who are contracted, provided grants or funds to con-  
25 duct research on information assurance, cybersecurity and

1 computing security to advance the agency’s cybersecurity  
2 capacity:

3 (1) Institutions designated as a Center of Dis-  
4 tinction for Academic Computing and Information  
5 Security Assurance.

6 (2) Institutions who have established academic  
7 mentoring and program development partnerships  
8 related to information assurance, cybersecurity, and  
9 computing security academic programs with institu-  
10 tions defined under section 371 of the Higher Edu-  
11 cation Act of 1965 listed in section 101 of this bill.

12 **TITLE III—FEDERAL WORK-**  
13 **FORCE COMPUTER AND IN-**  
14 **FORMATION SECURITY PRO-**  
15 **FESSIONAL DEVELOPMENT**

16 **SEC. 301. LIFELONG LEARNING IN COMPUTER AND INFOR-**  
17 **MATION SECURITY STUDY.**

18 (a) ESTABLISHMENT.—The Secretary of Homeland  
19 Security shall establish a program to be known as the  
20 “Lifelong Computer and Information Security Study”.  
21 Such program shall be designed to promote computer and  
22 information security professionals among Federal civilian  
23 agencies, critical infrastructure, and the general public by  
24 supporting post-employment education and training.

1 (b) DISCRETION OF SECRETARY.—The Secretary  
2 shall have the discretion to determine the best methods  
3 for accomplishing the objective of this section.

4 (c) REPORTS.—The Secretary shall periodically sub-  
5 mit to Congress a report on the implementation of this  
6 section.

7 **SEC. 302. COMPUTER AND INFORMATION SECURITY JOB**  
8 **OPPORTUNITIES PROGRAM.**

9 (a) IN GENERAL.—The Secretary of Homeland Secu-  
10 rity, acting through the Deputy Assistant Secretary for  
11 Cybersecurity Education and Awareness, shall establish,  
12 in conjunction with the National Science Foundation, a  
13 program to award grants to institutions of higher edu-  
14 cation (and consortia thereof) for—

15 (1) the establishment or expansion of computer  
16 and information security professional development  
17 programs;

18 (2) the establishment or expansion (or both) of  
19 associate degree programs in computer and informa-  
20 tion security; and

21 (3) the purchase of equipment to provide train-  
22 ing in computer and information security for either  
23 professional development programs or degree pro-  
24 grams.

1 (b) GOALS AND CRITERIA.—The Secretary, acting  
2 through the Deputy Assistant Secretary and in consulta-  
3 tion with the Working Group established under section  
4 201, shall establish the goals for the program under this  
5 section and the criteria for awarding grants.

6 (c) AWARDS.—

7 (1) PEER REVIEW.—All awards under this sec-  
8 tion shall be provided on a competitive, merit-re-  
9 viewed basis. The peer review process shall be pub-  
10 lished in the Federal Register. Those serving in a  
11 peer review role shall do so for 2 years with an op-  
12 tion for 1 additional term. Applicants in the event  
13 of a denial of an award shall be provided with a de-  
14 tailed explanation for the denial.

15 (2) FOCUS.—In making awards under this sec-  
16 tion, the Deputy Assistant Secretary shall, to the ex-  
17 tent practicable, ensure geographic diversity and the  
18 participation of women and under represented mi-  
19 norities.

20 (3) PREFERENCE.—In making awards under  
21 this section, the Deputy Assistant Secretary shall—

22 (A) give preference to applications sub-  
23 mitted by consortia of institutions, to encourage  
24 as many students and professionals as possible

1 to benefit from the program established under  
2 this section;

3 (B) give preference to any application sub-  
4 mitted by a consortium of institutions that in-  
5 cludes at least one institution that is eligible to  
6 receive funds under title III or V of the Higher  
7 Education Act of 1965; and

8 (C) consider the enrollment of students in  
9 online and distance learning courses.

10 (d) INSTITUTION OF HIGHER EDUCATION DE-  
11 FINED.—In this section the term “institution of higher  
12 education” has the meaning given that term in section  
13 101(a) of the Higher Education Act of 1965 (20 U.S.C.  
14 1001(a)).

15 **SEC. 303. DEPARTMENT OF HOMELAND SECURITY CYBER-**  
16 **SECURITY TRAINING PROGRAMS AND EQUIP-**  
17 **MENT.**

18 (a) IN GENERAL.—The Secretary of Homeland Secu-  
19 rity, acting through the Assistant Secretary of Cybersecu-  
20 rity, shall establish, in conjunction with the National  
21 Science Foundation, a program to award grants to institu-  
22 tions of higher education (and consortia thereof) for—

23 (1) the establishment or expansion of cyberse-  
24 curity professional development programs;

1           (2) the establishment or expansion (or both) of  
2     associate degree programs in cybersecurity; and

3           (3) the purchase of equipment to provide train-  
4     ing in cybersecurity for either professional develop-  
5     ment programs or degree programs.

6     (b) ROLES.—

7           (1) DEPARTMENT OF HOMELAND SECURITY.—  
8     The Secretary, acting through the Assistant Sec-  
9     retary and in consultation with the Director of the  
10    National Science Foundation, shall establish the  
11    goals for the program established under this section  
12    and the criteria for awarding grants.

13          (2) NATIONAL SCIENCE FOUNDATION.—The Di-  
14    rector of the National Science Foundation shall op-  
15    erate the program established under this section  
16    consistent with the goals and criteria established  
17    under paragraph (1), including soliciting applicants,  
18    reviewing applications, and making and admin-  
19    istering awards. The Director may consult with the  
20    Assistant Secretary in selecting awardees.

21          (3) FUNDING.—The Secretary shall transfer to  
22    the National Science Foundation the funds nec-  
23    essary to carry out this section.

24     (c) AWARDS.—

1           (1) PEER REVIEW.—All awards under this sec-  
2           tion shall be provided on a competitive, merit-re-  
3           viewed basis.

4           (2) FOCUS.—In making awards under this sec-  
5           tion, the Director shall, to the extent practicable, en-  
6           sure geographic diversity and the participation of  
7           women and under represented minorities.

8           (3) PREFERENCE.—In making awards under  
9           this section, the Director—

10                   (A) shall give preference to applications  
11                   submitted by consortia of institutions, to en-  
12                   courage as many students and professionals as  
13                   possible to benefit from the program established  
14                   under this section; and

15                   (B) shall give preference to any application  
16                   submitted by a consortium of institutions that  
17                   includes at least one institution that is eligible  
18                   to receive funds under title III or V of the  
19                   Higher Education Act of 1965.

20           (d) INSTITUTION OF HIGHER EDUCATION DE-  
21           FINED.—In this section the term “institution of higher  
22           education” has the meaning given that term in section  
23           101(a) of the Higher Education Act of 1965 (20 U.S.C.  
24           1001(a)).

1 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
2 authorized to be appropriated to the Secretary for car-  
3 rying out this section \$3,700,000 for each of fiscal years  
4 2016 and 2017.

5 **SEC. 304. E-SECURITY FELLOWS PROGRAM.**

6 (a) ESTABLISHMENT OF PROGRAM.—Subtitle C of  
7 title II of the Homeland Security Act of 2002 (6 U.S.C.  
8 121 et seq.) is further amended by adding at the end the  
9 following:

10 **“SEC. 230C. E-SECURITY FELLOWS PROGRAM.**

11 “(a) ESTABLISHMENT.—

12 “(1) IN GENERAL.—The Secretary shall estab-  
13 lish a fellowship program in accordance with this  
14 section for the purpose of bringing State, local, trib-  
15 al, and private sector officials to participate in the  
16 work of the National Cybersecurity Division in order  
17 to become familiar with the Department’s stated cy-  
18 bersecurity missions and capabilities, including but  
19 not limited to—

20 “(A) enhancing Federal, State, local, and  
21 tribal government cybersecurity;

22 “(B) developing partnerships with other  
23 Federal agencies, State, local, and tribal gov-  
24 ernments, and the private sector;

1           “(C) improving and enhancing public/pri-  
2           vate information sharing involving cyber at-  
3           tacks, threats, and vulnerabilities;

4           “(D) providing and coordinating incident  
5           response and recovery planning efforts; and

6           “(E) fostering training and certification.

7           “(2) PROGRAM NAME.—The program under  
8           this section shall be known as the E-Security Fel-  
9           lows Program.

10          “(b) ELIGIBILITY.—In order to be eligible for selec-  
11          tion as a fellow under the program, an individual must—

12           “(1) have cybersecurity-related responsibilities;  
13          and

14           “(2) be eligible to possess an appropriate na-  
15          tional security clearance.

16          “(c) LIMITATIONS.—The Secretary—

17           “(1) may conduct up to 2 iterations of the pro-  
18          gram each year, each of which shall be 180 days in  
19          duration; and

20           “(2) shall ensure that the number of fellows se-  
21          lected for each iteration does not impede the activi-  
22          ties of the Division.

23          “(d) CONDITION.—As a condition of selecting an in-  
24          dividual as a fellow under the program, the Secretary shall  
25          require that the individual’s employer agree to continue

1 to pay the individual's salary and benefits during the pe-  
 2 riod of the fellowship.

3       “(e) STIPEND.—During the period of the fellowship  
 4 of an individual under the program, the Secretary shall,  
 5 subject to the availability of appropriations, provide to the  
 6 individual a stipend to cover the individual's reasonable  
 7 living expenses during the period of the fellowship.”.

8       (b) CLERICAL AMENDMENT.—The table of contents  
 9 in section 1(b) of such Act is amended by adding at the  
 10 end of the items relating to such subtitle the following:

“Sec. 230C. E-Security Fellows Program.”.

## 11                   **TITLE IV—RESEARCH**

### 12   **SEC. 401. NATIONAL SCIENCE FOUNDATION STUDY ON** 13                   **SCIENCE AND TECHNOLOGY STUDENT RE-** 14                   **TENTION.**

15       (a) STUDY.—The National Science Foundation shall  
 16 conduct a study on the causes of the high dropout rates  
 17 of women and minority students enrolled in programs of  
 18 education leading to degrees in science, technology, engi-  
 19 neering, and mathematics and the effects of such dropout  
 20 rates on the cost of education for such students and the  
 21 shortage of workers qualified for jobs in science and tech-  
 22 nology.

23       (b) REPORT.—Not later than 180 days after the date  
 24 of the enactment of this Act, the National Science Foun-  
 25 dation shall submit to Congress a report on the study con-

1 ducted under subsection (a) together with any rec-  
2 ommendations of the National Science Foundation.

3 **SEC. 402. CHALLENGE GRANTS.**

4 (a) IN GENERAL.—The Secretary of Homeland Secu-  
5 rity shall make grants to the Center of Distinction for  
6 Academic Computing and Information Security Assur-  
7 ance, which shall be known as “Challenge Grants”. The  
8 recipient of a grant under this section shall use the grant  
9 to form a partnership with section 230A of the Homeland  
10 Security Act of 2002, as added by section 101 to assist  
11 in improving the computing programs of such colleges and  
12 universities and meeting the requirements to become a  
13 Center of Distinction for Academic Computing and Infor-  
14 mation Security. The Secretary shall ensure that the insti-  
15 tutions that receive assistance under this subsection are  
16 the institutions as defined under section 371 of the Higher  
17 Education Act of 1965 (20 U.S.C. 1067q).

18 (b) REPORT.—The Secretary shall submit to Con-  
19 gress a report on the outcomes of the partnerships funded  
20 by grants under this section and shall include in such re-  
21 port the recommendations of the Secretary regarding im-  
22 proving the access of the population served by the institu-  
23 tions of higher education described in subsection (a).

1 **SEC. 403. E-SECURITY FELLOWS PROGRAM.**

2 (a) ESTABLISHMENT OF PROGRAM.—Subtitle C of  
3 title II of the Homeland Security Act of 2002 (6 U.S.C.  
4 121 et seq.) is further amended by adding at the end the  
5 following:

6 **“SEC. 230D. E-SECURITY FELLOWS PROGRAM.**

7 “(a) ESTABLISHMENT.—

8 “(1) IN GENERAL.—The Secretary shall estab-  
9 lish a fellowship program in accordance with this  
10 section for the purpose of bringing State, local, trib-  
11 al, and private sector officials to participate in the  
12 work of the National Cybersecurity Division in order  
13 to become familiar with the Department’s stated cy-  
14 bersecurity missions and capabilities, including but  
15 not limited to—

16 “(A) developing partnerships with other  
17 Federal agencies, State, local, and tribal gov-  
18 ernments, and the private sector; and

19 “(B) fostering training and certification.

20 “(2) PROGRAM NAME.—The program under  
21 this section shall be known as the ‘E-Security Fel-  
22 lows Program’.

23 “(b) ELIGIBILITY.—In order to be eligible for selec-  
24 tion as a fellow under the program, an individual must—

25 “(1) have computer and information security-  
26 related responsibilities; and

1           “(2) be eligible to possess an appropriate na-  
2           tional security clearance.

3           “(c) LIMITATIONS.—The Secretary—

4           “(1) may conduct up to 2 iterations of the pro-  
5           gram each year, each of which shall be 180 days in  
6           duration; and

7           “(2) shall ensure that the number of fellows se-  
8           lected for each iteration does not impede the activi-  
9           ties of the Division.

10          “(d) CONDITION.—As a condition of selecting an in-  
11          dividual as a fellow under the program, the Secretary shall  
12          require that the individual’s employer agree to continue  
13          to pay the individual’s salary and benefits during the pe-  
14          riod of the fellowship.

15          “(e) STIPEND.—During the period of the fellowship  
16          of an individual under the program, the Secretary shall,  
17          subject to the availability of appropriations, provide to the  
18          individual a stipend to cover the individual’s reasonable  
19          living expenses during the period of the fellowship.”.

20          (b) CLERICAL AMENDMENT.—The table of contents  
21          in section 1(b) of such Act is further amended by adding  
22          at the end of the items relating to such subtitle the fol-  
23          lowing:

“Sec. 230D. E-Security Fellows Program.”.

○