

of the Office of Science and Technology Policy, shall conduct a review of cybersecurity test beds in existence on December 18, 2014, to inform the grants under paragraph (2). The review shall include an assessment of whether a sufficient number of cybersecurity test beds are available to meet the research needs under the Federal cybersecurity research and development strategic plan. Upon completion, the Director shall submit the review to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

(2) Additional cybersecurity modeling and test beds

(A) In general

If the Director of the National Science Foundation, after the review under paragraph (1), determines that the research needs under the Federal cybersecurity research and development strategic plan require the establishment of additional cybersecurity test beds, the Director of the National Science Foundation, in coordination with the Secretary of Commerce and the Secretary of Homeland Security, may award grants to institutions of higher education or research and development nonprofit institutions to establish cybersecurity test beds.

(B) Requirement

The cybersecurity test beds under subparagraph (A) shall be sufficiently robust in order to model the scale and complexity of real-time cyber attacks and defenses on real world networks and environments.

(C) Assessment required

The Director of the National Science Foundation, in coordination with the Secretary of Commerce and the Secretary of Homeland Security, shall evaluate the effectiveness of any grants awarded under this subsection in meeting the objectives of the Federal cybersecurity research and development strategic plan not later than 2 years after the review under paragraph (1) of this subsection, and periodically thereafter.

(d) Coordination with other research initiatives

In accordance with the responsibilities under section 5511 of this title, the Director of the Office of Science and Technology Policy shall coordinate, to the extent practicable, Federal research and development activities under this section with other ongoing research and development security-related initiatives, including research being conducted by—

- (1) the National Science Foundation;
- (2) the National Institute of Standards and Technology;
- (3) the Department of Homeland Security;
- (4) other Federal agencies;
- (5) other Federal and private research laboratories, research entities, and universities;
- (6) institutions of higher education;
- (7) relevant nonprofit organizations; and
- (8) international partners of the United States.

(e) Omitted

(f) Research on the science of cybersecurity

The head of each agency and department identified under section 5511(a)(3)(B)¹ of this title, through existing programs and activities, shall support research that will lead to the development of a scientific foundation for the field of cybersecurity, including research that increases understanding of the underlying principles of securing complex networked systems, enables repeatable experimentation, and creates quantifiable security metrics.

(Pub. L. 113-274, title II, § 201, Dec. 18, 2014, 128 Stat. 2974; Pub. L. 114-329, title I, § 105(t), Jan. 6, 2017, 130 Stat. 2985.)

REFERENCES IN TEXT

Section 5511(a)(3)(B) of this title, referred to in subsecs. (a)(4) and (f), was redesignated section 5511(a)(3)(C) of this title by Pub. L. 114-329, title I, § 105(f)(2)(D)(i), Jan. 6, 2017, 130 Stat. 2979.

CODIFICATION

Section is comprised of section 201 of Pub. L. 113-274. Subsec. (e) of section 201 of Pub. L. 113-274 amended section 7403 of this title.

AMENDMENTS

2017—Subsec. (a)(4). Pub. L. 114-329 substituted “clauses (i) through (xi)” for “clauses (i) through (x)” and “under clause (xii)” for “under clause (xi)”.

SUBCHAPTER II—EDUCATION AND WORKFORCE DEVELOPMENT

§ 7441. Cybersecurity competitions and challenges

(a) In general

The Secretary of Commerce, Director of the National Science Foundation, and Secretary of Homeland Security, in consultation with the Director of the Office of Personnel Management, shall—

- (1) support competitions and challenges under section 3719 of this title (as amended by section 105 of the America COMPETES Reauthorization Act of 2010 (124 Stat. 3989)) or any other provision of law, as appropriate—

(A) to identify, develop, and recruit talented individuals to perform duties relating to the security of information technology in Federal, State, local, and tribal government agencies, and the private sector; or

(B) to stimulate innovation in basic and applied cybersecurity research, technology development, and prototype demonstration that has the potential for application to the information technology activities of the Federal Government; and

- (2) ensure the effective operation of the competitions and challenges under this section.

(b) Participation

Participants in the competitions and challenges under subsection (a)(1) may include—

- (1) students enrolled in grades 9 through 12;
- (2) students enrolled in a postsecondary program of study leading to a baccalaureate degree at an institution of higher education;
- (3) students enrolled in a postbaccalaureate program of study at an institution of higher education;

(4) institutions of higher education and research institutions;

(5) veterans; and

(6) other groups or individuals that the Secretary of Commerce, Director of the National Science Foundation, and Secretary of Homeland Security determine appropriate.

(c) Affiliation and cooperative agreements

Competitions and challenges under this section may be carried out through affiliation and cooperative agreements with—

(1) Federal agencies;

(2) regional, State, or school programs supporting the development of cyber professionals;

(3) State, local, and tribal governments; or

(4) other private sector organizations.

(d) Areas of skill

Competitions and challenges under subsection (a)(1)(A) shall be designed to identify, develop, and recruit exceptional talent relating to—

(1) ethical hacking;

(2) penetration testing;

(3) vulnerability assessment;

(4) continuity of system operations;

(5) security in design;

(6) cyber forensics;

(7) offensive and defensive cyber operations;

and

(8) other areas the Secretary of Commerce, Director of the National Science Foundation, and Secretary of Homeland Security consider necessary to fulfill the cybersecurity mission.

(e) Topics

In selecting topics for competitions and challenges under subsection (a)(1), the Secretary of Commerce, Director of the National Science Foundation, and Secretary of Homeland Security—

(1) shall consult widely both within and outside the Federal Government; and

(2) may empanel advisory committees.

(f) Internships

The Director of the Office of Personnel Management may support, as appropriate, internships or other work experience in the Federal Government to the winners of the competitions and challenges under this section.

(Pub. L. 113-274, title III, §301, Dec. 18, 2014, 128 Stat. 2981.)

REFERENCES IN TEXT

Section 3719 of this title (as amended by section 105 of the America COMPETES Reauthorization Act of 2010 (124 Stat. 3989)), referred to in subsec. (a)(1), probably means section 3719 of this title as enacted by section 105(a) of Pub. L. 111-358.

§ 7442. Federal Cyber Scholarship-for-Service Program

(a) In general

The Director of the National Science Foundation, in coordination with the Director of the Office of Personnel Management and Secretary of Homeland Security, shall continue a Federal cyber scholarship-for-service program to recruit and train the next generation of information technology professionals, industrial control sys-

tem security professionals, and security managers to meet the needs of the cybersecurity mission for Federal, State, local, and tribal governments.

(b) Program description and components

The Federal Cyber Scholarship-for-Service Program shall—

(1) provide scholarships through qualified institutions of higher education, including community colleges, to students who are enrolled in programs of study at institutions of higher education leading to degrees or specialized program certifications in the cybersecurity field;

(2) provide the scholarship recipients with summer internship opportunities or other meaningful temporary appointments in the Federal information technology workforce;

(3) prioritize the employment placement of at least 80 percent of scholarship recipients in an executive agency (as defined in section 105 of title 5); and

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

(A) to increase interest in cybersecurity careers;

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

(C) to improve teaching methods for delivering cybersecurity content for kindergarten through grade 12 computer science curricula; and

(D) to promote teacher recruitment in the field of cybersecurity.

(c) Scholarship amounts

Each scholarship under subsection (b) shall be in an amount that covers the student's tuition and fees at the institution under subsection (b)(1) for not more than 3 years and provides the student with an additional stipend.

(d) Post-award employment obligations

Each scholarship recipient, as a condition of receiving a scholarship under the program, shall enter into an agreement under which the recipient agrees to work for a period equal to the length of the scholarship, following receipt of the student's degree, in the cybersecurity mission of—

(1) an executive agency (as defined in section 105 of title 5);

(2) Congress, including any agency, entity, office, or commission established in the legislative branch;

(3) an interstate agency;

(4) a State, local, or Tribal government; or

(5) a State, local, or Tribal government-affiliated non-profit that is considered to be critical infrastructure (as defined in section 5195c(e) of title 42).

(e) Hiring authority

(1) Appointment in excepted service

Notwithstanding any provision of chapter 33 of title 5 governing appointments in the competitive service, an agency shall appoint in the excepted service an individual who has completed the eligible degree program for which a scholarship was awarded.