

into an agreement under which the recipient agrees to work in the cybersecurity mission of a Federal, State, local, or tribal agency for a period equal to the length of the scholarship following receipt of the student's degree."

Subsec. (f)(3). Pub. L. 115-91, §1649B(a)(3)(A), amended par. (3) generally. Prior to amendment, par. (3) read as follows: "have demonstrated a high level of proficiency in mathematics, engineering, or computer sciences;"

Subsec. (f)(4). Pub. L. 115-91, §1649B(a)(3)(B), amended par. (4) generally. Prior to amendment, par. (4) read as follows: "be a full-time student in an eligible degree program at a qualified institution of higher education, as determined by the Director of the National Science Foundation; and"

Subsec. (m). Pub. L. 115-91, §1649B(a)(4), amended subsec. (m) generally. Prior to amendment, text read as follows: "The Director of the National Science Foundation shall evaluate and report periodically to Congress on the success of recruiting individuals for scholarships under this section and on hiring and retaining those individuals in the public sector workforce."

SAVINGS PROVISION

Pub. L. 115-91, div. A, title XVI, §1649B(b), Dec. 12, 2017, 131 Stat. 1755, provided that: "Nothing in this section [amending this section], or an amendment made by this section, shall affect any agreement, scholarship, loan, or repayment, under section 302 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7442), in effect on the day before the date of enactment of this subtitle [Dec. 12, 2017]."

COMMUNITY COLLEGE CYBER PILOT PROGRAM AND ASSESSMENT

Pub. L. 115-91, div. A, title XVI, §1649A, Dec. 12, 2017, 131 Stat. 1753, provided that:

"(a) **PILOT PROGRAM.**—Not later than 1 year after the date of enactment of this subtitle [Dec. 12, 2017], as part of the Federal Cyber Scholarship-for-Service program established under section 302 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7442), the Director of the National Science Foundation, in coordination with the Director of the Office of Personnel Management, shall develop and implement a pilot program at not more than 10, but at least 5, community colleges to provide scholarships to eligible students who—

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

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

"(B) are veterans of the Armed Forces.

"(b) **ASSESSMENT.**—Not later than 1 year after the date of enactment of this subtitle, as part of the Federal Cyber Scholarship-for-Service program established under section 302 of the Cybersecurity Enhancement Act of 2014 (15 U.S.C. 7442), the Director of the National Science Foundation, in coordination with the Director of the Office of Personnel Management, shall assess the potential benefits and feasibility of providing scholarships through community colleges to eligible students who are pursuing associate degrees, but do not have bachelor's degrees."

SUBCHAPTER III—CYBERSECURITY AWARENESS AND PREPAREDNESS

§ 7451. National cybersecurity awareness and education program

(a) National cybersecurity awareness and education program

The Director of the National Institute of Standards and Technology (referred to in this section as the "Director"), in consultation with appropriate Federal agencies, industry, educational institutions, National Laboratories, the Networking and Information Technology Re-

search and Development program, and other organizations shall continue to coordinate a national cybersecurity awareness and education program, that includes activities such as—

(1) the widespread dissemination of cybersecurity technical standards and best practices identified by the Director;

(2) efforts to make cybersecurity best practices usable by individuals, small to medium-sized businesses, educational institutions, and State, local, and tribal governments;

(3) increasing public awareness of cybersecurity, cyber safety, and cyber ethics;

(4) increasing the understanding of State, local, and tribal governments, institutions of higher education, and private sector entities of—

(A) the benefits of ensuring effective risk management of information technology versus the costs of failure to do so; and

(B) the methods to mitigate and remediate vulnerabilities;

(5) supporting formal cybersecurity education programs at all education levels to prepare and improve a skilled cybersecurity and computer science workforce for the private sector and Federal, State, local, and tribal government; and

(6) promoting initiatives to evaluate and forecast future cybersecurity workforce needs of the Federal Government and develop strategies for recruitment, training, and retention.

(b) Considerations

In carrying out the authority described in subsection (a), the Director, in consultation with appropriate Federal agencies, shall leverage existing programs designed to inform the public of safety and security of products or services, including self-certifications and independently verified assessments regarding the quantification and valuation of information security risk.

(c) Strategic plan

The Director, in cooperation with relevant Federal agencies and other stakeholders, shall build upon programs and plans in effect as of December 18, 2014, to develop and implement a strategic plan to guide Federal programs and activities in support of the national cybersecurity awareness and education program under subsection (a).

(d) Report

Not later than 1 year after December 18, 2014, and every 5 years thereafter, the Director shall transmit the strategic plan under subsection (c) to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

(Pub. L. 113-274, title IV, §401, Dec. 18, 2014, 128 Stat. 2985.)

SUBCHAPTER IV—ADVANCEMENT OF CYBERSECURITY TECHNICAL STANDARDS

§ 7461. Definitions

In this subchapter:

(1) Director

The term "Director" means the Director of the National Institute of Standards and Technology.

(2) Institute

The term “Institute” means the National Institute of Standards and Technology.

(Pub. L. 113–274, title V, §501, Dec. 18, 2014, 128 Stat. 2986.)

§ 7462. International cybersecurity technical standards**(a) In general**

The Director, in coordination with appropriate Federal authorities, shall—

(1) as appropriate, ensure coordination of Federal agencies engaged in the development of international technical standards related to information system security; and

(2) not later than 1 year after December 18, 2014, develop and transmit to Congress a plan for ensuring such Federal agency coordination.

(b) Consultation with the private sector

In carrying out the activities specified in subsection (a)(1), the Director shall ensure consultation with appropriate private sector stakeholders.

(Pub. L. 113–274, title V, §502, Dec. 18, 2014, 128 Stat. 2986.)

§ 7463. Cloud computing strategy**(a) In general**

The Director, in coordination with the Office of Management and Budget, in collaboration with the Federal Chief Information Officers Council, and in consultation with other relevant Federal agencies and stakeholders from the private sector, shall continue to develop and encourage the implementation of a comprehensive strategy for the use and adoption of cloud computing services by the Federal Government.

(b) Activities

In carrying out the strategy described under subsection (a), the Director shall give consideration to activities that—

(1) accelerate the development, in collaboration with the private sector, of standards that address interoperability and portability of cloud computing services;

(2) advance the development of conformance testing performed by the private sector in support of cloud computing standardization; and

(3) support, in coordination with the Office of Management and Budget, and in consultation with the private sector, the development of appropriate security frameworks and reference materials, and the identification of best practices, for use by Federal agencies to address security and privacy requirements to enable the use and adoption of cloud computing services, including activities—

(A) to ensure the physical security of cloud computing data centers and the data stored in such centers;

(B) to ensure secure access to the data stored in cloud computing data centers;

(C) to develop security standards as required under section 278g–3 of this title; and

(D) to support the development of the automation of continuous monitoring systems.

(Pub. L. 113–274, title V, §503, Dec. 18, 2014, 128 Stat. 2986.)

§ 7464. Identity management research and development

The Director shall continue a program to support the development of voluntary and cost-effective technical standards, metrology, testbeds, and conformance criteria, taking into account appropriate user concerns—

(1) to improve interoperability among identity management technologies;

(2) to strengthen authentication methods of identity management systems;

(3) to improve privacy protection in identity management systems, including health information technology systems, through authentication and security protocols; and

(4) to improve the usability of identity management systems.

(Pub. L. 113–274, title V, §504, Dec. 18, 2014, 128 Stat. 2987.)

CHAPTER 101—NANOTECHNOLOGY RESEARCH AND DEVELOPMENT

Sec.	National Nanotechnology Program.
7501.	Program coordination.
7502.	Advisory Panel.
7503.	Quadrennial external review of the National Nanotechnology Program.
7504.	Authorization of appropriations.
7505.	Department of Commerce programs.
7506.	Department of Energy programs.
7507.	Additional centers.
7508.	Definitions.
7509.	

§ 7501. National Nanotechnology Program**(a) National Nanotechnology Program**

The President shall implement a National Nanotechnology Program. Through appropriate agencies, councils, and the National Nanotechnology Coordination Office established in section 7502 of this title, the Program shall—

(1) establish the goals, priorities, and metrics for evaluation for Federal nanotechnology research, development, and other activities;

(2) invest in Federal research and development programs in nanotechnology and related sciences to achieve those goals; and

(3) provide for interagency coordination of Federal nanotechnology research, development, and other activities undertaken pursuant to the Program.

(b) Program activities

The activities of the Program shall include—

(1) developing a fundamental understanding of matter that enables control and manipulation at the nanoscale;

(2) providing grants to individual investigators and interdisciplinary teams of investigators;

(3) establishing a network of advanced technology user facilities and centers;

(4) establishing, on a merit-reviewed and competitive basis, interdisciplinary nanotechnology research centers, which shall—

(A) interact and collaborate to foster the exchange of technical information and best practices;