

TRANSFER OF EL PASO AND HUDSPETH COUNTIES,
TEXAS, TO MOUNTAIN STANDARD TIME ZONE

Pub. L. 91-228, Apr. 10, 1970, 84 Stat. 119, provided: "That, notwithstanding the first section of the Act of March 4, 1921 (15 U.S.C. 265), the Secretary of Transportation may, upon the written request of the County Commissioners Court of El Paso County, Texas, change the boundary line between the central standard time zone and the mountain standard time zone, so as to place El Paso County in the mountain standard time zone, in the manner prescribed in section 1 of the Act of March 19, 1918, as amended (15 U.S.C. 261), and section 5 of the Act of April 13, 1966 (15 U.S.C. 266). In the same manner, the Secretary of Transportation may also place Hudspeth County, Texas, in the mountain standard time zone, if the Hudspeth County Commissioners Court so requests in writing and if El Paso County is to be placed in that time zone."

§ 266. Applicability of administrative procedure provisions

Subchapter II of chapter 5, and chapter 7, of title 5 shall apply to all proceedings under this Act, sections 261 to 264 of this title, and section 265 of this title.

(Pub. L. 89-387, § 5, Apr. 13, 1966, 80 Stat. 108.)

Editorial Notes

REFERENCES IN TEXT

This Act, referred to in text, is Pub. L. 89-387, Apr. 13, 1966, 80 Stat. 107, known as the "Uniform Time Act of 1966". For complete classification of this Act to the Code, see Short Title note set out under section 260 of this title and Tables.

CODIFICATION

"Subchapter II of chapter 5, and chapter 7, of title 5" substituted in text for "The Administrative Procedure Act (5 U.S.C. 1001-1011)" on authority of Pub. L. 89-554, § 7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

§ 267. "State" defined

As used in this Act, the term "State" includes the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands, or any possession of the United States.

(Pub. L. 89-387, § 7, Apr. 13, 1966, 80 Stat. 109; Pub. L. 106-564, § 1(c), Dec. 23, 2000, 114 Stat. 2811.)

Editorial Notes

REFERENCES IN TEXT

This Act, referred to in text, is Pub. L. 89-387, Apr. 13, 1966, 80 Stat. 107, known as the "Uniform Time Act of 1966". For complete classification of this Act to the Code, see Short Title note set out under section 260 of this title and Tables.

AMENDMENTS

2000—Pub. L. 106-564 inserted "Guam, the Commonwealth of the Northern Mariana Islands," after "Puerto Rico,".

**CHAPTER 7—NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY**

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§ 271. Findings and purposes

(a) The Congress finds and declares the following:

(1) The future well-being of the United States economy depends on a strong manufacturing base and requires continual improvements in manufacturing technology, quality control, and techniques for ensuring product reliability and cost-effectiveness.

(2) Precise measurements, calibrations, and standards help United States industry and manufacturing concerns compete strongly in world markets.

(3) Improvements in manufacturing and product technology depend on fundamental scientific and engineering research to develop (A) the precise and accurate measurement methods and measurement standards needed to improve quality and reliability, and (B) new technological processes by which such improved methods may be used in practice to improve manufacturing and to assist industry to transfer important laboratory discoveries into commercial products.

(4) Scientific progress, public safety, and product compatibility and standardization also depend on the development of precise measurement methods, standards, and related basic technologies.

(5) The National Bureau of Standards since its establishment has served as the Federal focal point in developing basic measurement standards and related technologies, has taken a lead role in stimulating cooperative work among private industrial organizations in efforts to surmount technological hurdles, and otherwise has been responsible for assisting in the improvement of industrial technology.

(6) The Federal Government should maintain a national science, engineering, and technology laboratory which provides measurement methods, standards, and associated technologies and which aids United States companies in using new technologies to improve products and manufacturing processes.

(7) Such national laboratory also should serve industry, trade associations, State technology programs, labor organizations, professional societies, and educational institutions by disseminating information on new basic technologies including automated manufacturing processes.

(b) It is the purpose of this chapter—

(1) to rename the National Bureau of Standards as the National Institute of Standards and Technology and to modernize and restructure that agency to augment its unique ability to enhance the competitiveness of American industry while maintaining its traditional function as lead national laboratory for providing the measurements, calibrations, and quality assurance techniques which underpin United States commerce, technological progress, improved product reliability and manufacturing processes, and public safety;

(2) to assist private sector initiatives to capitalize on advanced technology;

(3) to advance, through cooperative efforts among industries, universities, and government laboratories, promising research and development projects, which can be optimized by the private sector for commercial and industrial applications; and

(4) to promote shared risks, accelerated development, and pooling of skills which will be

necessary to strengthen America's manufacturing industries.

(Mar. 3, 1901, ch. 872, §1, 31 Stat. 1449; Pub. L. 100-418, title V, §5111, Aug. 23, 1988, 102 Stat. 1427.)

Editorial Notes

REFERENCES IN TEXT

This chapter, referred to in subsec. (b), was in the original "this Act" meaning act Mar. 3, 1901, ch. 872, 31 Stat. 1449, known as the National Institute of Standards and Technology Act, which is classified generally to this chapter. For complete classification of this Act to the Code, see Short Title note below and Tables.

AMENDMENTS

1988—Pub. L. 100-418 amended section generally. Prior to amendment, section read as follows: "The Office of Standard Weights and Measures shall be known as the National Bureau of Standards."

Statutory Notes and Related Subsidiaries

CHANGE OF NAME; NATIONAL BUREAU OF STANDARDS REDESIGNATED NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

Section 5115(c) of Pub. L. 100-418 provided that: "References in any other Federal law to the National Bureau of Standards shall be deemed to refer to the National Institute of Standards and Technology."

Act Mar. 4, 1913, ch. 141, §1, 37 Stat. 736, created the Department of Labor and renamed the Department of Commerce and Labor as the Department of Commerce.

SHORT TITLE OF 2023 AMENDMENT

Pub. L. 118-23, §1, Dec. 19, 2023, 137 Stat. 125, provided that: "This Act [enacting section 278u of this title] may be cited as the 'Testing, Rapid Analysis, and Narcotic Quality Research Act of 2023' or the 'TRANQ Research Act of 2023'."

SHORT TITLE OF 2020 AMENDMENT

Pub. L. 116-207, §1, Dec. 4, 2020, 134 Stat. 1001, provided that: "This Act [enacting sections 278g-3a to 278g-3e of this title and provisions set out as a note under section 278g-3a of this title] may be cited as the 'Internet of Things Cybersecurity Improvement Act of 2020' or the 'IoT Cybersecurity Improvement Act of 2020'."

SHORT TITLE OF 2018 AMENDMENT

Pub. L. 115-236, §1, Aug. 14, 2018, 132 Stat. 2444, provided that: "This Act [amending section 272 of this title and enacting provisions set out as notes under section 272 of this title] may be cited as the 'NIST Small Business Cybersecurity Act'."

SHORT TITLE OF 2017 AMENDMENT

Pub. L. 114-329, title V, §501(a), Jan. 6, 2017, 130 Stat. 3023, provided that: "This section [enacting section 278k-1 of this title, amending sections 278g-5, 278k, and 278l of this title and section 2199 of Title 10, Armed Forces, and enacting provisions set out as notes under section 278k of this title] may be cited as the 'Manufacturing Extension Partnership Improvement Act'."

SHORT TITLE OF 2014 AMENDMENT

Pub. L. 113-235, div. B, title VII, §701, Dec. 16, 2014, 128 Stat. 2220, provided that: "This title [enacting section 278s of this title, amending section 3722 of this title and section 6622 of Title 42, The Public Health and Welfare, enacting provisions set out as a note under section 278s of this title, and amending provisions set out as a note under this section] may be cited as the 'Revitalize American Manufacturing and Innovation Act of 2014'."

SHORT TITLE OF 2011 AMENDMENT

Pub. L. 111-358, title VII, §701, Jan. 4, 2011, 124 Stat. 4041, provided that: "This title [amending section 278k

of this title and enacting provisions set out as a note under section 278k of this title] may be cited as the ‘NIST Grants for Energy Efficiency, New Job Opportunities, and Business Solutions Act of 2010’ or the ‘NIST GREEN JOBS Act of 2010’.”

SHORT TITLE OF 2010 AMENDMENT

Pub. L. 111-240, title IV, § 4221, Sept. 27, 2010, 124 Stat. 2596, provided that: “This part [part I (§§ 4221-4228) of subtitle B of title IV of Pub. L. 111-240, amending section 278k of this title and enacting provisions set out as a note under section 278n of this title] may be cited as the ‘Export Promotion Act of 2010’.”

SHORT TITLE OF 1998 AMENDMENT

Pub. L. 105-309, § 1, Oct. 30, 1998, 112 Stat. 2935, provided that: “This Act [enacting sections 278g-2a, 278p, and 1511e of this title, amending sections 278k, 3704, and 3711a of this title, enacting provisions set out as notes under sections 272 and 3711 of this title, and amending provisions set out as a note under this section] may be cited as the ‘Technology Administration Act of 1998’.”

SHORT TITLE OF 1992 AMENDMENT

Pub. L. 102-245, title II, § 201(a), Feb. 14, 1992, 106 Stat. 15, provided that: “This title [amending sections 272 and 278n of this title and enacting provisions set out as notes under section 278n of this title] may be cited as the ‘Emerging Technologies and Advanced Technology Program Amendments Act of 1991’.”

SHORT TITLE OF 1988 AMENDMENT

Pub. L. 100-418, title V, § 5101, Aug. 23, 1988, 102 Stat. 1426, provided that: “This part [part I (§§ 5101-5164) of subtitle B of title V of Pub. L. 100-418, enacting sections 205j-1, 278i to 278o, 282a, 1532, 1533, 3704a, and 4632 of this title, amending this section, sections 205a, 205b, 205k, 272 to 275, 278, 278b, 278d, 278e, 278g to 278g-4, 3703, 3706, 3708, 3710, 3710c, and 3713 of this title, and section 5315 of Title 5, Government Organization and Employees, repealing sections 280 to 282 of this title, enacting provisions set out as notes under this section, sections 272, 278i, and 278n of this title, and section 1803 of Title 30, Mineral Lands and Mining, and amending provisions set out as a note under this section] may be cited as the ‘Technology Competitiveness Act’.”

SHORT TITLE

Act Mar. 3, 1901, ch. 872, § 36, formerly § 23, as added by Pub. L. 100-235, § 3(3), Jan. 8, 1988, 101 Stat. 1728; renumbered § 31 and amended Pub. L. 100-418, title V, § 5114(1), 5115(a)(2), Aug. 23, 1988, 102 Stat. 1432, 1433; renumbered § 32, Pub. L. 105-309, § 4(a), Oct. 30, 1998, 112 Stat. 2935; renumbered § 34, Pub. L. 110-69, title III, § 3007(1), Aug. 9, 2007, 121 Stat. 590; renumbered § 35, Pub. L. 113-235, div. B, title VII, § 703(1), Dec. 16, 2014, 128 Stat. 2221; renumbered § 36, Pub. L. 117-167, div. B, title II, § 10230(1), Aug. 9, 2022, 136 Stat. 1482, provided that: “This Act [enacting this chapter] may be cited as the National Institute of Standards and Technology Act.”

SAVINGS PROVISION

Act Mar. 3, 1901, ch. 872, § 29, as added Aug. 23, 1988, Pub. L. 100-418, title V, § 5161, 102 Stat. 1449, provided that: “All rules and regulations, determinations, standards, contracts, certifications, authorizations, delegations, results and findings of investigations, or other actions duly issued, made, or taken by or pursuant to this Act [enacting this chapter], or under the authority of any other statutes which resulted in the assignment of functions or activities to the Secretary, the Department, the Director, or the Institute, as are in effect immediately before the date of enactment of this section [Aug. 23, 1988], and not suspended by the Secretary, the Director, the Institute or the courts, shall continue in full force and effect after the date of enactment of this section until modified or rescinded.”

§ 272. Establishment, functions, and activities

(a) Establishment of National Institute of Standards and Technology

There is established within the Department of Commerce a science, engineering, technology, and measurement laboratory to be known as the National Institute of Standards and Technology (hereafter in this chapter referred to as the “Institute”).

(b) Functions of Secretary and Institute

The Secretary of Commerce (hereafter in this chapter referred to as the “Secretary”) acting through the Director of the Institute (hereafter in this chapter referred to as the “Director”) is authorized to serve as the President’s principal adviser on standards policy pertaining to the Nation’s technological competitiveness and innovation ability and to take all actions necessary and appropriate to accomplish the purposes of this chapter, including the following functions of the Institute—

(1) to assist industry in the development of technology and procedures needed to improve quality, to modernize manufacturing processes, to ensure product reliability, manufacturability, functionality, and cost-effectiveness, and to facilitate the more rapid commercialization, especially by small- and medium-sized companies throughout the United States, of products based on new scientific discoveries in fields such as automation, electronics, advanced materials, biotechnology, and optical technologies;

(2) to develop, maintain, and retain custody of the national standards of measurement, and provide the means and methods for making measurements consistent with those standards;

(3) to facilitate standards-related information sharing and cooperation between Federal agencies and to coordinate the use by Federal agencies of private sector standards, emphasizing where possible the use of standards developed by private, consensus organizations;

(4) to enter into and perform such contracts, including cooperative research and development arrangements and grants and cooperative agreements or other transactions, as may be necessary in the conduct of its work and on such terms as it may determine appropriate, in furtherance of the purposes of this chapter;

(5) to provide United States industry, Government, and educational institutions with a national clearinghouse of current information, techniques, and advice for the achievement of higher quality and productivity based on current domestic and international scientific and technical development;

(6) to assist industry in the development of measurements, measurement methods, and basic measurement technology;

(7) to determine, compile, evaluate, and disseminate physical constants and the properties and performance of conventional and advanced materials when they are important to science, engineering, manufacturing, education, commerce, and industry and are not available with sufficient accuracy elsewhere;

(8) to develop a fundamental basis and methods for testing materials, mechanisms, struc-

tures, equipment, and systems, including those used by the Federal Government;

(9) to assure the compatibility of United States national measurement standards with those of other nations;

(10) to cooperate with other departments and agencies of the Federal Government, with industry, with State and local governments, with the governments of other nations and international organizations, and with private organizations in establishing standard practices, codes, specifications, and voluntary consensus standards;

(11) to advise government and industry on scientific and technical problems;

(12) to invent, develop, and (when appropriate) promote transfer to the private sector of measurement devices to serve special national needs; and

(13) to coordinate technical standards activities and conformity assessment activities of Federal, State, and local governments with private sector technical standards activities and conformity assessment activities, with the goal of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures.

(c) Implementation activities

In carrying out the functions specified in subsection (b), the Secretary, acting through the Director¹ may, among other things—

(1) construct physical standards;

(2) test, calibrate, and certify standards and standard measuring apparatus;

(3) study and improve instruments, measurement methods, and industrial process control and quality assurance techniques;

(4) cooperate with the States in securing uniformity in weights and measures laws and methods of inspection;

(5) cooperate with foreign scientific and technical institutions to understand technological developments in other countries better;

(6) prepare, certify, and sell standard reference materials for use in ensuring the accuracy of chemical analyses and measurements of physical and other properties of materials;

(7) in furtherance of the purposes of this chapter, accept research associates, cash donations, and donated equipment from industry, and also engage with industry in research to develop new basic and generic technologies for traditional and new products and for improved production and manufacturing;

(8) study and develop fundamental scientific understanding and improved measurement, analysis, synthesis, processing, and fabrication methods for chemical substances and compounds, ferrous and nonferrous metals, and all traditional and advanced materials, including processes of degradation;

(9) investigate ionizing and nonionizing radiation and radioactive substances, their uses, and ways to protect people, structures, and equipment from their harmful effects;

(10) determine the atomic and molecular structure of matter, through analysis of spec-

tra and other methods, to provide a basis for predicting chemical and physical structures and reactions and for designing new materials and chemical substances, including biologically active macromolecules;

(11) perform research on electromagnetic waves, including optical waves, and on properties and performance of electrical, electronic, and electromagnetic devices and systems and their essential materials, develop and maintain related standards, and disseminate standard signals through broadcast and other means;

(12) develop and test standard interfaces, communication protocols, and data structures for computer and related telecommunications systems;

(13) study computer systems (as that term is defined in section 278g-3(d)² of this title) and their use to control machinery and processes;

(14) perform research to develop standards and test methods to advance the effective use of computers and related systems and to protect the information stored, processed, and transmitted by such systems and to provide advice in support of policies affecting Federal computer and related telecommunications systems;

(15) on an ongoing basis, facilitate and support the development of a voluntary, consensus-based, industry-led set of standards, guidelines, best practices, methodologies, procedures, and processes to cost-effectively reduce cyber risks to critical infrastructure (as defined under subsection (e));

(16) support information security measures for the development and lifecycle of software and the software supply chain, including development of voluntary, consensus-based technical standards, best practices, frameworks, methodologies, procedures, processes, and software engineering toolkits and configurations;

(17) support information security measures, including voluntary, consensus-based technical standards, best practices, and guidelines, for the design, adoption, and deployment of cloud computing services;

(18) support research, development, and practical application to improve the usability of cybersecurity processes and technologies;

(19) facilitate and support the development of a voluntary, consensus-based set of technical standards, guidelines, best practices, methodologies, procedures, and processes to improve privacy protections in systems, technologies, and processes used by both the public and private sector;

(20) support privacy measures, including voluntary, consensus-based technical standards, best practices, guidelines, metrology, and testbeds for the design, adoption, and deployment of privacy enhancing technologies;

(21) perform research to support the development of voluntary, consensus-based, industry-led standards and recommendations on the security of computers, computer networks, and computer data storage used in election systems to ensure voters can vote securely and privately;

¹ So in original. Probably should be followed by a comma.

² See References in Text note below.

(22) determine properties of building materials and structural elements, and encourage their standardization and most effective use, including investigation of fire-resisting properties of building materials and conditions under which they may be most efficiently used, and the standardization of types of appliances for fire prevention;

(23) undertake such research in engineering, pure and applied mathematics, statistics, computer science, materials science, and the physical sciences as may be necessary to carry out and support the functions specified in this section;

(24) host, participate in, and support scientific and technical workshops (as defined in section 202 of the American Innovation and Competitiveness Act);

(25) collect and retain any fees charged by the Secretary for hosting a scientific and technical workshop described in paragraph (19);²

(26) notwithstanding title 31 of the United States Code, use the fees described in paragraph (20)² to pay for any related expenses, including subsistence expenses for participants;

(27) compile, evaluate, publish, and otherwise disseminate general, specific and technical data resulting from the performance of the functions specified in this section or from other sources when such data are important to science, engineering, or industry, or to the general public, and are not available elsewhere;

(28) collect, create, analyze, and maintain specimens of scientific value;

(29) operate national user facilities;

(30) evaluate promising inventions and other novel technical concepts submitted by inventors and small companies and work with other Federal agencies, States, and localities to provide appropriate technical assistance and support for those inventions which are found in the evaluation process to have commercial promise;

(31) demonstrate the results of the Institute's activities by exhibits or other methods of technology transfer, including the use of scientific or technical personnel of the Institute for part-time or intermittent teaching and training activities at educational institutions of higher learning as part of and incidental to their official duties; and

(32) undertake such other activities similar to those specified in this subsection as the Director determines appropriate.

(d) Management costs

In carrying out the extramural funding programs of the Institute, including the programs established under sections 278k and 278l of this title, the Secretary may retain reasonable amounts of any funds appropriated pursuant to authorizations for these programs in order to pay for the Institute's management of these programs.

(e) Cyber risks

(1) In general

In carrying out the activities under subsection (c)(15), the Director—

(A) shall—

(i) coordinate closely and regularly with relevant private sector personnel and entities, critical infrastructure owners and operators, and other relevant industry organizations, including Sector Coordinating Councils and Information Sharing and Analysis Centers, and incorporate industry expertise;

(ii) consult with the heads of agencies with national security responsibilities, sector-specific agencies and other appropriate agencies, State and local governments, the governments of other nations, and international organizations;

(iii) identify a prioritized, flexible, repeatable, performance-based, and cost-effective approach, including information security measures and controls, that may be voluntarily adopted by owners and operators of critical infrastructure to help them identify, assess, and manage cyber risks;

(iv) include methodologies—

(I) to identify and mitigate impacts of the cybersecurity measures or controls on business confidentiality; and

(II) to protect individual privacy and civil liberties;

(v) incorporate voluntary consensus standards and industry best practices;

(vi) align with voluntary international standards to the fullest extent possible;

(vii) prevent duplication of regulatory processes and prevent conflict with or superseding of regulatory requirements, mandatory standards, and related processes;

(viii) consider small business concerns (as defined in section 632 of this title);

(ix) consider institutions of higher education (as such term is defined in section 1001 of title 20); and

(x) include such other similar and consistent elements as the Director considers necessary; and

(B) shall not prescribe or otherwise require—

(i) the use of specific solutions;

(ii) the use of specific information or communications technology products or services; or

(iii) that information or communications technology products or services be designed, developed, or manufactured in a particular manner.

(2) Limitation

Information shared with or provided to the Institute for the purpose of the activities described under subsection (c)(15) shall not be used by any Federal, State, tribal, or local department or agency to regulate the activity of any entity. Nothing in this paragraph shall be construed to modify any regulatory requirement to report or submit information to a Federal, State, tribal, or local department or agency.

(3) Definitions

In this subsection:

(A) Critical infrastructure

The term “critical infrastructure” has the meaning given the term in section 5195c(e) of title 42.

(B) Sector-specific agency

The term “sector-specific agency” means the Federal department or agency responsible for providing institutional knowledge and specialized expertise as well as leading, facilitating, or supporting the security and resilience programs and associated activities of its designated critical infrastructure sector in the all-hazards environment.

(Mar. 3, 1901, ch. 872, § 2, 31 Stat. 1449; July 22, 1950, ch. 486, § 1, 64 Stat. 371; Pub. L. 92-317, § 3(b), June 22, 1972, 86 Stat. 235; Pub. L. 100-235, § 3(1), Jan. 8, 1988, 101 Stat. 1724; Pub. L. 100-418, title V, § 5112(a), Aug. 23, 1988, 102 Stat. 1428; Pub. L. 102-245, title II, § 201(e), Feb. 14, 1992, 106 Stat. 19; Pub. L. 104-113, § 12(a), (b), Mar. 7, 1996, 110 Stat. 782; Pub. L. 110-69, title III, §§ 3002(c)(2)(A), 3013(b), Aug. 9, 2007, 121 Stat. 586, 598; Pub. L. 113-274, title I, § 101(a), (b), Dec. 18, 2014, 128 Stat. 2972; Pub. L. 114-329, title I, § 104(b)(4), title II, §§ 202(d), 205(a)(2)(B), title IV, § 403, Jan. 6, 2017, 130 Stat. 2976, 2998, 3000, 3023; Pub. L. 115-236, § 2(b), Aug. 14, 2018, 132 Stat. 2444; Pub. L. 117-167, div. B, title II, §§ 10223, 10228, 10242(a), Aug. 9, 2022, 136 Stat. 1477, 1481, 1487.)

Editorial Notes**REFERENCES IN TEXT**

Section 278g-3 of this title, referred to in subsec. (c)(13), was amended, and no longer defines the term “computer systems”.

Section 202 of the American Innovation and Competitiveness Act, referred to in subsec. (c)(24), is section 202 of Pub. L. 114-329, title II, Jan. 6, 2017, 130 Stat. 2997. Subsec. (a) of that section, which defines “scientific and technical workshop”, is not classified to the Code.

Paragraphs (19) and (20), referred to in subsec. (c)(25) and (26), were redesignated as pars. (24) and (25), respectively, of subsec. (c) of this section by Pub. L. 117-167, div. B, title II, § 10223(2), Aug. 9, 2022, 136 Stat. 1477.

AMENDMENTS

2022—Subsec. (b)(4). Pub. L. 117-167, § 10242(a), amended par. (4) generally. Prior to amendment, par. (4) read as follows: “to enter into contracts, including cooperative research and development arrangements, and grants and cooperative agreements, in furtherance of the purposes of this chapter.”

Subsec. (c)(16). Pub. L. 117-167, § 10223(3), added par. (16). Former par. (16) redesignated (21).

Pub. L. 117-167, § 10223(1), substituted semicolon for period at end.

Subsec. (c)(17) to (32). Pub. L. 117-167, § 10223(2), (3), added pars. (17) to (20) and redesignated former pars. (16) to (27) as (21) to (32), respectively.

Subsec. (e)(1)(A)(ix), (x). Pub. L. 117-167, § 10228, added cl. (ix) and redesignated former cl. (ix) as (x).

2018—Subsec. (e)(1)(A)(viii), (ix). Pub. L. 115-236 added cl. (viii) and redesignated former cl. (viii) as (ix).

2017—Subsec. (b). Pub. L. 114-329, § 403(l), in introductory provisions, substituted “authorized to serve as the President’s principal adviser on standards policy pertaining to the Nation’s technological competitiveness and innovation ability and to take” for “authorized to take”.

Subsec. (b)(3). Pub. L. 114-329, § 403(2), substituted “facilitate standards-related information sharing and cooperation between Federal agencies” for “compare standards used in scientific investigations, engineering,

manufacturing, commerce, industry, and educational institutions with the standards adopted or recognized by the Federal Government”.

Subsec. (b)(13). Pub. L. 114-329, § 403(3), substituted “technical standards activities and conformity assessment activities of Federal, State, and local governments with private sector” for “Federal, State, and local technical standards activities and conformity assessment activities, with private sector”.

Subsec. (c)(16) to (27). Pub. L. 114-329, §§ 104(b)(4), 202(d), added pars. (16) and (19) to (21), redesignated former pars. (16) and (17) as (17) and (18), respectively, and redesignated former pars. (18) to (23) as (22) to (27), respectively.

Subsec. (d). Pub. L. 114-329, § 205(a)(2)(B), substituted “sections 278k and 278l” for “sections 278k, 278l, and 278n”.

2014—Subsec. (c)(15) to (23). Pub. L. 113-274, § 101(a), added par. (15) and redesignated former pars. (15) to (22) as (16) to (23), respectively.

Subsec. (e). Pub. L. 113-274, § 101(b), added subsec. (e).

2007—Subsec. (b). Pub. L. 110-69, § 3002(c)(2)(A)(i), struck out “and, if appropriate, through other officials,” before “is authorized” in introductory provisions.

Subsec. (b)(4). Pub. L. 110-69, § 3013(b), inserted “and grants and cooperative agreements,” after “arrangements.”

Subsec. (c). Pub. L. 110-69, § 3002(c)(2)(A)(ii), struck out “and, if appropriate, through other appropriate officials,” before “may,” in introductory provisions.

1996—Subsec. (b)(2). Pub. L. 104-113, § 12(a)(1), struck out “, including comparing standards used in scientific investigations, engineering, manufacturing, commerce, industry, and educational institutions with the standards adopted or recognized by the Federal Government” after “consistent with those standards”.

Subsec. (b)(3) to (12). Pub. L. 104-113, § 12(a)(2), (3), added par. (3) and redesignated former pars. (3) to (11) as (4) to (12), respectively.

Subsec. (b)(13). Pub. L. 104-113, § 12(b)(3), added par. (13).

1992—Subsec. (d). Pub. L. 102-245 added subsec. (d).

1988—Pub. L. 100-418 amended section generally, substituting provisions relating to establishment, functions and activities of the National Institute of Standards and Technology and the Secretary of Commerce for provisions which authorized Secretary to undertake certain enumerated functions and activities related to the National Bureau of Standards and for which need might arise in operations of Government agencies, scientific institutions, and industrial enterprises.

Par. (20). Pub. L. 100-235 added par. (20).

1972—Par. (19). Pub. L. 92-317 inserted provisions authorizing use of National Bureau of Standards personnel for teaching and training activities without additional compensation.

1950—Act July 22, 1950, provided basic authority for performance of certain functions and activities of Department of Commerce.

Statutory Notes and Related Subsidiaries**CHANGE OF NAME**

Reference to a Sector Specific Agency (including any permutations or conjugations thereof) deemed to be a reference to the Sector Risk Management Agency of the relevant critical infrastructure sector and have the meaning given such term in section 650 of Title 6, Domestic Security, see section 652a(c)(3) of Title 6, enacted Jan. 1, 2021.

CONSTRUCTION OF PUB. L. 115-236

Pub. L. 115-236, § 2(d), Aug. 14, 2018, 132 Stat. 2445, provided that: “Nothing in this section [amending this section and enacting provisions set out as notes under this section] may be construed to supersede, alter, or otherwise affect any cybersecurity requirements applicable to Federal agencies.”

REPORTING

Pub. L. 117–167, div. B, title II, §10242(b), Aug. 9, 2022, 136 Stat. 1487, provided that: “Not later than one year after the date of the enactment of this Act [Aug. 9, 2022] and not less than annually thereafter, the Secretary [of Commerce] shall submit to the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives and the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate a report on the use of agreements, activities, and associated funding for transactions (other than contracts, cooperative agreements, and grants) described in paragraph (4) of section 2(b) of the National Institute of Standards and Technology Act [15 U.S.C. 272(b)(4)] (as amended by subsection (a)), including the following elements:

“(1) A description of when the other transactions authority described in such amended paragraph was used and for what purpose.

“(2) A description of why such other transactions authority was required.

“(3) Steps taken to ensure necessary and sufficient oversight of Federal Government requirements implemented using such other transactions authority.”

DISSEMINATION OF RESOURCES FOR SMALL BUSINESSES

Pub. L. 115–236, §2(c), Aug. 14, 2018, 132 Stat. 2444, as amended by Pub. L. 116–283, div. H, title XCIV, §9401(g)(4)(B), Jan. 1, 2021, 134 Stat. 4809, provided that:

“(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act [Aug. 14, 2018], the Director, in carrying out section 2(e)(1)(A)(viii) of the National Institute of Standards and Technology Act [15 U.S.C. 272(e)(1)(A)(viii)], as added by subsection (b) of this Act, in consultation with the heads of other appropriate Federal agencies, shall disseminate clear and concise resources to help small business concerns identify, assess, manage, and reduce their cybersecurity risks.

“(2) REQUIREMENTS.—The Director shall ensure that the resources disseminated pursuant to paragraph (1)—

“(A) are generally applicable and usable by a wide range of small business concerns;

“(B) vary with the nature and size of the implementing small business concern, and the nature and sensitivity of the data collected or stored on the information systems or devices of the implementing small business concern;

“(C) include elements, that promote awareness of simple, basic controls, a workplace cybersecurity culture, and third-party stakeholder relationships, to assist small business concerns in mitigating common cybersecurity risks;

“(D) include case studies of practical application;

“(E) are technology-neutral and can be implemented using technologies that are commercial and off-the-shelf; and

“(F) are based on international standards to the extent possible, and are consistent with the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.).

“(3) NATIONAL CYBERSECURITY AWARENESS AND EDUCATION PROGRAM.—The Director shall ensure that the resources disseminated under paragraph (1) are consistent with the efforts of the Director under section 303 of the Cybersecurity Enhancement Act of 2014 (Public Law 113–274) [15 U.S.C. 7443].

“(4) SMALL BUSINESS DEVELOPMENT CENTER CYBER STRATEGY.—In carrying out paragraph (1), the Director, to the extent practicable, shall consider any methods included in the Small Business Development Center Cyber Strategy developed under section 1841(a)(3)(B) of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114–328) [130 Stat. 2662].

“(5) VOLUNTARY RESOURCES.—The use of the resources disseminated under paragraph (1) shall be considered voluntary.

“(6) UPDATES.—The Director shall review and, if necessary, update the resources disseminated under para-

graph (1) in accordance with the requirements under paragraph (2).

“(7) PUBLIC AVAILABILITY.—The Director and the head of each Federal agency that so elects shall make prominently available on the respective agency’s public Internet website information about the resources and updates to the resources disseminated under paragraph (1). The Director and the heads shall each ensure that the information they respectively make prominently available is consistent, clear, and concise.”

NIST CYBERSECURITY PRIORITIES

Pub. L. 114–329, title I, §104(b)(1), (2), Jan. 6, 2017, 130 Stat. 2975, provided that:

“(1) CRITICAL INFRASTRUCTURE AWARENESS.—The Director of NIST [National Institute of Standards and Technology] shall continue to raise public awareness of the voluntary, industry-led cybersecurity standards and best practices for critical infrastructure developed under section 2(c)(15) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)(15)).

“(2) QUANTUM COMPUTING.—Under section 2(b) of the National Institute of Standards and Technology Act (15 U.S.C. 272(b)) and section 20 of that Act (15 U.S.C. 278g–3), the Director of NIST shall—

“(A) research information systems for future cybersecurity needs; and

“(B) coordinate with relevant stakeholders to develop a process—

“(i) to research and identify or, if necessary, develop cryptography standards and guidelines for future cybersecurity needs, including quantum-resistant cryptography standards; and

“(ii) to provide recommendations to Congress, Federal agencies, and industry consistent with the National Technology Transfer and Advancement Act of 1995 (Public Law 104–113; 110 Stat. 775), for a secure and smooth transition to the standards under clause (i).”

LABORATORY PROGRAM IMPROVEMENTS

Pub. L. 114–329, title I, §107, Jan. 6, 2017, 130 Stat. 2987, provided that:

“(a) IN GENERAL.—The Director of NIST [National Institute of Standards and Technology], acting through the Associate Director for Laboratory Programs, shall develop and implement a comprehensive strategic plan for laboratory programs that expands—

“(1) interactions with academia, international researchers, and industry; and

“(2) commercial and industrial applications.

“(b) OPTIMIZING COMMERCIAL AND INDUSTRIAL APPLICATIONS.—In accordance with the purpose under section 1(b)(3) of the National Institute of Standards and Technology Act (15 U.S.C. 271(b)(3)), the comprehensive strategic plan shall—

“(1) include performance metrics for the dissemination of fundamental research results, measurements, and standards research results to industry, including manufacturing, and other interested parties;

“(2) document any positive benefits of research on the competitiveness of the interested parties described in paragraph (1);

“(3) clarify the current approach to the technology transfer activities of NIST; and

“(4) consider recommendations from the National Academy of Sciences.”

ENHANCEMENT OF SCIENCE AND MATHEMATICS PROGRAMS

Pub. L. 105–309, §6, Oct. 30, 1998, 112 Stat. 2936, as amended by Pub. L. 114–329, title II, §204(a)(1)(A), Jan. 6, 2017, 130 Stat. 2998, provided that:

“(a) DEFINITIONS.—In this section—

“(1) EDUCATIONALLY USEFUL FEDERAL EQUIPMENT.—The term ‘educationally useful Federal equipment’ means computers and related peripheral tools and research equipment that is appropriate for use in schools.

“(2) SCHOOL.—The term ‘school’ means a public or private educational institution that serves any of the grades of kindergarten through grade 12.

“(b) SENSE OF THE CONGRESS.—It is the sense of the Congress that the Director of the National Institute of Standards and Technology should, to the greatest extent practicable and in a manner consistent with applicable Federal law (including Executive Order No. 12999 [40 U.S.C. 549 note]), donate educationally useful Federal equipment to schools in order to enhance the science and mathematics programs of those schools.”

TRANSMITTAL OF PLAN FOR STANDARDS CONFORMITY TO CONGRESS

Pub. L. 104-113, §12(c), Mar. 7, 1996, 110 Stat. 783, provided that: “The National Institute of Standards and Technology shall, within 90 days after the date of enactment of this Act [Mar. 7, 1996], transmit to the Congress a plan for implementing the amendments made by this section [amending this section and enacting provisions set out as a note below].”

UTILIZATION OF CONSENSUS TECHNICAL STANDARDS BY FEDERAL AGENCIES

Pub. L. 104-113, §12(d), Mar. 7, 1996, 110 Stat. 783, as amended by Pub. L. 107-107, div. A, title XI, §1115, Dec. 28, 2001, 115 Stat. 1241, provided that:

“(1) IN GENERAL.—Except as provided in paragraph (3) of this subsection, all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.

“(2) CONSULTATION; PARTICIPATION.—In carrying out paragraph (1) of this subsection, Federal agencies and departments shall consult with voluntary, private sector, consensus standards bodies and shall, when such participation is in the public interest and is compatible with agency and departmental missions, authorities, priorities, and budget resources, participate with such bodies in the development of technical standards.

“(3) EXCEPTION.—If compliance with paragraph (1) of this subsection is inconsistent with applicable law or otherwise impractical, a Federal agency or department may elect to use technical standards that are not developed or adopted by voluntary consensus standards bodies if the head of each such agency or department transmits to the Office of Management and Budget an explanation of the reasons for using such standards. Each year, beginning with fiscal year 1997, the Office of Management and Budget shall transmit to Congress and its committees a report summarizing all explanations received in the preceding year under this paragraph.

“(4) EXPENSES OF GOVERNMENT PERSONNEL.—Section 5946 of title 5, United States Code, shall not apply with respect to any activity of an employee of a Federal agency or department that is determined by the head of that agency or department as being an activity undertaken in carrying out this subsection.

“(5) DEFINITION OF TECHNICAL STANDARDS.—As used in this subsection, the term ‘technical standards’ means performance-based or design-specific technical specifications and related management systems practices.”

INTERNATIONAL STANDARDS

Pub. L. 100-519, title I, §112, Oct. 24, 1988, 102 Stat. 2592, provided that:

“(a) PROGRAM.—The Secretary, acting through the Director of the National Institute of Standards and Technology and other appropriate officials, shall seek funding for and establish, within 6 months after the date of the enactment of this Act [Oct. 24, 1988], a program to assist other countries in the development of their domestic standards which are compatible with standards in general use in the United States. After the program is established, it shall be funded through voluntary contributions from the private sector to fully

reimburse the United States for expenses incurred during fiscal years 1989 and 1990. The program shall begin on a pilot basis focusing on one or two countries or groups of countries which are major United States trading partners and have expressed interest in such program. The Secretary shall ensure that contributions which are earmarked by country are spent to assist the development of standards by that country or group of countries.

“(b) LONG-TERM PLAN.—No later than June 30, 1989, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a long-term plan for assistance under this section for each nation or group of nations which annually has imports of at least \$1,000,000,000 from the United States (or has the potential for being a major importer from the United States) and which desires such assistance. The plan shall include a description of the resources needed to provide such assistance, the appropriate and likely sources of such funds, and the appropriate relationship between the program established under this section and private sector standards organizations. Special consideration is to be given to the feasibility of establishing a data base and other methods for making standards information developed in cooperation with one country available to other countries.”

INITIAL ORGANIZATION PLAN FOR INSTITUTE

Pub. L. 100-418, title V, §5112(d), Aug. 23, 1988, 102 Stat. 1431, provided that:

“(1) At least 60 days before its effective date and within 120 days after the date of the enactment of this Act [Aug. 23, 1988], an initial organization plan for the National Institute of Standards and Technology (hereafter in this part [see Short Title of 1988 Amendment note set out under section 271 of this title] referred to as the ‘Institute’) shall be submitted by the Director of the Institute (hereafter in this part referred to as the ‘Director’) after consultation with the Visiting Committee on Advanced Technology, to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate. Such plan shall—

“(A) establish the major operating units of the Institute;

“(B) assign each of the activities listed in section 2(c) of the Act of March 3, 1901 [15 U.S.C. 272(c)], and all other functions and activities of the Institute, to at least one of the major operating units established under subparagraph (A);

“(C) provide details of a 2-year program for the Institute, including the Advanced Technology Program;

“(D) provide details regarding how the Institute will expand and fund the Inventions program in accordance with section 27 of the Act of March 3, 1901 [former 15 U.S.C. 278m]; and

“(E) make no changes in the Center for Building Technology or the Center for Fire Research.

“(2) The Director may revise the organization plan. Any revision of the organization plan submitted under paragraph (1) shall be submitted to the appropriate committees of the House of Representatives and the Senate at least 60 days before the effective date of such revision.

“(3) Until the effective date of the organization plan, the major operating units of the Institute shall be the major operating units of the National Bureau of Standards that were in existence on the date of the enactment of this Act [Aug. 23, 1988] and the Advanced Technology Program.”

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY; SMALL BUSINESS PLAN

Pub. L. 100-418, title V, §5163(b), Aug. 23, 1988, 102 Stat. 1450, provided that: “The Director of the National Institute of Standards and Technology shall prepare a plan detailing the manner in which the Institute will

make small businesses more aware of the Institute's activities and research, and the manner in which the Institute will seek to increase the application by small businesses of the Institute's research, particularly in manufacturing. The plan shall be submitted to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives not later than 120 days after the date of the enactment of this Act [Aug. 23, 1988]."

CONSTRUCTION OF RADIO LABORATORY BUILDING

Act Oct. 25, 1949, ch. 703, 63 Stat. 886, provided for the construction and equipment of a suitable radio laboratory building, together with necessary utilities and appurtenances thereto, under a limit of cost of \$4,475,000, for the National Bureau of Standards.

CONSTRUCTION OF A GUIDED-MISSILE RESEARCH LABORATORY

Act Oct. 25, 1949, ch. 728, 63 Stat. 905, provided for the construction and equipment of a research laboratory building, suitable for use as a guided-missile laboratory, together with necessary utilities and appurtenances thereto, under a limit of cost of \$1,900,000, for the National Bureau of Standards.

DEFINITIONS

Pub. L. 115-236, §2(a), Aug. 14, 2018, 132 Stat. 2444, provided that: "In this section [amending this section and enacting provisions set out as notes under this section]:

"(1) DIRECTOR.—The term 'Director' means the Director of the National Institute of Standards and Technology.

"(2) RESOURCES.—The term 'resources' means guidelines, tools, best practices, standards, methodologies, and other ways of providing information.

"(3) SMALL BUSINESS CONCERN.—The term 'small business concern' has the meaning given such term in section 3 of the Small Business Act (15 U.S.C. 632)."

§ 272a. Technology services

In addition to such other technology services and technology extension activities which may be mandated or authorized by law, and in order to help improve the use of technology by small and medium-sized industrial firms within the United States, the Director of the National Institute of Standards and Technology, as appropriate, shall—

(1) work directly with States, local governments, and other appropriate organizations to provide for extended distribution of Standard Reference Materials, Standard Reference Data, calibrations, and related technical services and to help transfer other expertise and technology to the States and to small businesses and other businesses within the States;

(2) evaluate those inventions from small businesses or individuals which have a significant potential for improving competitiveness;

(3) provide support for workshops on technical and entrepreneurial topics and share information developed through the Malcolm Baldrige Quality Award Program; and

(4) work with other Federal agencies to provide technical and related assistance to the States and businesses within the States.

(Pub. L. 100-519, title I, §109, Oct. 24, 1988, 102 Stat. 2591.)

Editorial Notes

CODIFICATION

Section was enacted as part of the National Institute of Standards and Technology Authorization Act for

Fiscal Year 1989, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

§ 272b. Annual budget submission

The National Institute of Standards and Technology shall annually submit to the Congress, at the time of the release of the President's budget, a three year budget estimate for the Institute, including funding estimates for each major account and new initiative.

(Pub. L. 100-519, title I, §111, Oct. 24, 1988, 102 Stat. 2592.)

Editorial Notes

CODIFICATION

Section was enacted as part of the National Institute of Standards and Technology Authorization Act for Fiscal Year 1989, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

§ 273. Functions; for whom exercised

The Institute is authorized to exercise its functions for the Government of the United States and for international organizations of which the United States is a member; for governments of friendly countries; for any State or municipal government within the United States; or for any scientific society, educational institution, firm, corporation, or individual within the United States or friendly countries engaged in manufacturing or other pursuits requiring the use of standards or standard measuring instruments: *Provided*, That the exercise of these functions for international organizations, governments of friendly countries and scientific societies, educational institutions, firms, corporations, or individuals therein shall be in coordination with other agencies of the United States Government, in particular the Department of State in respect to foreign entities. All requests for the services of the Institute shall be made in accordance with the rules and regulations herein established.

(Mar. 3, 1901, ch. 872, §3, 31 Stat. 1449; Pub. L. 92-317, §3(c), June 22, 1972, 86 Stat. 235; Pub. L. 100-418, title V, §5115(a)(1), Aug. 23, 1988, 102 Stat. 1433.)

Editorial Notes

REFERENCES IN TEXT

"Herein", referred to in last sentence of this section, refers to act Mar. 3, 1901, ch. 872, which is classified generally to this chapter.

AMENDMENTS

1988—Pub. L. 100-418 substituted "Institute" for "Bureau" and for "bureau".

1972—Pub. L. 92-317 authorized the Bureau to extend its services to international organizations of which the United States is a member, and for governments of friendly countries in coordination with the Department of State.

§ 273a. Under Secretary of Commerce for Standards and Technology

(a) Establishment

There shall be in the Department of Commerce an Under Secretary of Commerce for Standards

and Technology (in this section referred to as the “Under Secretary”).

(b) Appointment

The Under Secretary shall be appointed by the President by and with the advice and consent of the Senate.

(c) Compensation

The Under Secretary shall be compensated at the rate in effect for level III of the Executive Schedule under section 5314 of title 5.

(d) Duties

The Under Secretary shall serve as the Director of the Institute and shall perform such duties as required of the Director by the Secretary under this chapter or by law.

(e) Applicability

The individual serving as the Director of the Institute on January 4, 2011, shall also serve as the Under Secretary until such time as a successor is appointed under subsection (b).

(Mar. 3, 1901, ch. 872, § 4, as added Pub. L. 111-358, title IV, § 403(a), Jan. 4, 2011, 124 Stat. 4000.)

Editorial Notes

PRIOR PROVISIONS

A prior section 4 of act Mar. 3, 1901, ch. 872, 31 Stat. 1449, which was not classified to the Code, was repealed.

§ 274. Director; powers and duties; report; compensation

The Director shall report directly to the Secretary and shall have the general supervision of the Institute, its equipment, and the exercise of its functions. The Director shall make an annual report to the Secretary of Commerce. The Director may issue, when necessary, bulletins for public distribution, containing such information as may be of value to the public or facilitate the exercise of the functions of the Institute.

(Mar. 3, 1901, ch. 872, § 5, 31 Stat. 1449; Pub. L. 99-73, § 6(a), July 29, 1985, 99 Stat. 172; Pub. L. 100-418, title V, § 5112(c)(1), Aug. 23, 1988, 102 Stat. 1431; Pub. L. 110-69, title III, § 3002(c)(2)(B), Aug. 9, 2007, 121 Stat. 586; Pub. L. 111-358, title IV, § 403(b)(2), Jan. 4, 2011, 124 Stat. 4000.)

Editorial Notes

AMENDMENTS

2011—Pub. L. 111-358 struck out at beginning “The Director shall be appointed by the President, by and with the advice and consent of the Senate.” and struck out at end “The Director shall be compensated at the rate in effect for level IV of the Executive Schedule under section 5315 of title 5. Until such time as the Director assumes office under this section, the most recent Director of the National Bureau of Standards shall serve as Director.”

2007—Pub. L. 110-69 substituted “The Director shall report directly to the Secretary and shall have the general” for “The Director shall have the general”.

1988—Pub. L. 100-418 amended section generally, substituting provisions relating to appointment, powers and duties, and compensation of, and reports by, Director of the Institute for similar provisions relating to Director of the Bureau of Standards, striking out requirement that the annual report include an abstract

of the work done during the year and a financial statement, and inserting provision that until such time as the Director assumes office under this section, the most recent Director of the National Bureau of Standards shall serve as Director.

1985—Pub. L. 99-73 substituted “The Director” for “He” at beginning of second, third, and fourth sentences, and inserted provisions relating to compensation for the Director.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 1985 AMENDMENT

Amendment by Pub. L. 99-73 effective Oct. 1, 1985, see section 6(c) of Pub. L. 99-73, set out as a note under section 5315 of Title 5, Government Organization and Employees.

§ 275. Hiring critical technical experts

(a) In general

The officers and employees of the Institute, except the director, shall be appointed by the Secretary at such time as their respective services may become necessary.

(b) Hiring critical technical experts

Notwithstanding section 3104 of title 5 or the provisions of any other law relating to the appointment, number, classification, or compensation of employees, the Secretary shall have the authority to make appointments of scientific, engineering, and professional personnel, and to fix the basic pay of such personnel at a rate to be determined by the Secretary at rates not in excess of the highest total annual compensation payable at the rate determined under section 104 of title 3. The Director shall appoint not more than 15 personnel under this section.

(c) Sunset

The authority under section¹ (b) shall expire on the date that is 5 years after August 9, 2022.

(Mar. 3, 1901, ch. 872, § 6, 31 Stat. 1450; Feb. 14, 1903, ch. 552, § 10, 32 Stat. 829; Mar. 4, 1913, ch. 141, § 1, 37 Stat. 736; Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 117-167, div. B, title II, § 10244, Aug. 9, 2022, 136 Stat. 1488.)

Editorial Notes

CODIFICATION

August 9, 2022, referred to in subsec. (c), was in the original “the date of the enactment of this section”, which was translated as meaning the date of enactment of Pub. L. 117-167, which amended this section generally, to reflect the probable intent of Congress.

AMENDMENTS

2022—Pub. L. 117-167 amended section generally. Prior to amendment, text read as follows: “The officers and employees of the Institute, except the director, shall be appointed by the Secretary of Commerce at such time as their respective services may become necessary.”

1988—Pub. L. 100-418 substituted “Institute” for “bureau”.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Act Mar. 4, 1913, substituted “Secretary of Commerce” for “Secretary of Commerce and Labor”.

¹ So in original. Probably should be “subsection”.

TRANSFER OF FUNCTIONS

Act Feb. 14, 1903, transferred power and authority of Secretary of the Treasury over Bureau of Standards to Secretary of Commerce and Labor.

PROCUREMENT OF TEMPORARY AND INTERMITTENT SERVICES

Pub. L. 110-69, title III, §3009, Aug. 9, 2007, 121 Stat. 592, permitted the Director of the National Institute of Standards and Technology, until Sept. 30, 2010, to procure the temporary or intermittent services of no more than 200 experts or consultants per year to assist with urgent or short-term research projects and required the Comptroller General to submit to Congress, no later than 2 years after Aug. 9, 2007, a report on possible additional safeguards needed should the authority under this section be made permanent.

DEMONSTRATION PROJECT RELATING TO PERSONNEL MANAGEMENT

Pub. L. 99-574, §10, Oct. 28, 1986, 100 Stat. 3238, as amended by Pub. L. 100-418, title V, §5115(c), Aug. 23, 1988, 102 Stat. 1433, directed the Office of Personnel Management and the National Institute of Standards and Technology to jointly design an alternative personnel management system demonstration project to be commenced not later than Jan. 1, 1988, and to be conducted by the Director of the Institute in accordance with section 4703 of Title 5, Government Organization and Employees, with the Director of the Office of Personnel Management to provide that the project be evaluated annually by a contractor, and a report of the contractor's findings submitted to the Office, and, along with any comments of the Office and the Institute, submitted to the Congress, and a final report to be submitted to the Congress by the Comptroller General not later than 4 years after the date on which the project commences, such report to include any recommendations for legislation or other action considered appropriate by the Comptroller General.

[Pub. L. 104-113, §10, Mar. 7, 1996, 110 Stat. 779, provided that: "The personnel management demonstration project established under section 10 of the National Bureau of Standards Authorization Act for Fiscal Year 1987 [Pub. L. 99-574] (15 U.S.C. 275 note) is extended indefinitely."]

§ 275a. Service charges

The Secretary shall charge for services performed under the authority of section 273 of this title, except in cases where he determines that the interest of the Government would be best served by waiving the charge. Such charges may be based upon fixed prices or costs. The appropriation or fund bearing the cost of the services may be reimbursed, or the Secretary may require advance payment subject to such adjustment on completion of the work as may be agreed upon.

(Mar. 3, 1901, ch. 872, §7, as added Aug. 3, 1956, ch. 906, §1, 70 Stat. 959.)

Editorial Notes

CODIFICATION

Provisions relating to fees were formerly contained in section 276 of this title.

§ 275b. Charges for activities performed for other agencies

The Secretary of Commerce shall charge for any service performed by the Institute, at the request of another Government agency, in compliance with any statute, enacted before, on, or

after October 6, 1982, which names the Secretary or the Institute as a consultant to another Government agency, or calls upon the Secretary or the Institute to support or perform any activity for or on behalf of another Government agency, or to cooperate with any Government agency in the performance by that agency of any activity, regardless of whether the statute specifically requires reimbursement to the Secretary or the Institute by such other Government agency for such service, unless funds are specifically appropriated to the Secretary or the Institute to perform such service. The Secretary may, however, waive any charge where the service rendered by the Institute is such that the Institute will incur only nominal costs in performing it. Costs shall be determined in accordance with section 278b(e) of this title.

(Pub. L. 97-286, §8, Oct. 6, 1982, 96 Stat. 1223; Pub. L. 100-418, title V, §5115(c), Aug. 23, 1988, 102 Stat. 1433.)

Editorial Notes

CODIFICATION

Section was not enacted as part of the National Institute of Standards and Technology Act which comprises this chapter.

AMENDMENTS

1988—Pub. L. 100-418 substituted "Institute" for "Bureau" wherever appearing.

§ 275c. Cost recovery authority

Fees for calibration services, standard reference materials, and other comparable services provided by the National Institute of Standards and Technology shall be at least sufficient to meet the requirements set forth in the amendments made by subsection (a),¹ and any funds recovered in excess of such requirements shall be returned to the Treasury of the United States.

(Pub. L. 99-73, §5(b), July 29, 1985, 99 Stat. 172; Pub. L. 100-418, title V, §5115(c), Aug. 23, 1988, 102 Stat. 1433.)

Editorial Notes

REFERENCES IN TEXT

The amendments made by subsection (a), referred to in text, mean the amendments made by subsec. (a) of section 5 of Pub. L. 99-73, which amended section 278b(f) of this title.

CODIFICATION

Section was not enacted as part of the National Institute and Technology Act which comprises this chapter.

AMENDMENTS

1988—Pub. L. 100-418 substituted "National Institute of Standards and Technology" for "National Bureau of Standards".

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE

Pub. L. 99-73, §5(c), July 29, 1985, 99 Stat. 172, provided that: "The amendments made by subsection (a) [amending section 278b of this title] (and the provisions of subsection (b) [enacting this section]) shall be effective October 1, 1984."

¹ See References in Text note below.

§ 276. Ownership of facilities

In the absence of specific agreement to the contrary, additional facilities, including equipment, purchased pursuant to the performance of services authorized by section 273 of this title shall become the property of the Department of Commerce.

(Mar. 3, 1901, ch. 872, § 8, 31 Stat. 1450; June 30, 1932, ch. 314, pt. II, title III, § 312, 47 Stat. 410; Aug. 3, 1956, ch. 906, § 1, 70 Stat. 959.)

Editorial Notes

AMENDMENTS

1956—Act Aug. 3, 1956, substituted provisions relating to ownership of additional facilities by the Department of Commerce (formerly contained in section 278b of this title) for those relating to fees, see section 275a of this title.

1932—Act June 30, 1932, inserted provision for payment of moneys into the Treasury, among other changes.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 1932 AMENDMENT

Amendment by act June 30, 1932, effective July 1, 1932, see section 314 of that act.

§ 277. Regulations

The Secretary of Commerce shall, from time to time, make regulations regarding the payment of fees, the limits of tolerance to be attained in standards submitted for verification, the sealing of standards, the disbursement and receipt of moneys, and such other matters as he may deem necessary for carrying this chapter into effect.

(Mar. 3, 1901, ch. 872, § 9, 31 Stat. 1450; Feb. 14, 1903, ch. 552, § 10, 32 Stat. 829; Mar. 4, 1913, ch. 141, § 1, 37 Stat. 736.)

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Act Mar. 4, 1913, substituted “Secretary of Commerce” for “Secretary of Commerce and Labor”.

TRANSFER OF FUNCTIONS

Act Feb. 14, 1903, transferred power and authority of Secretary of the Treasury over Bureau of Standards to Secretary of Commerce and Labor.

§ 278. Visiting Committee on Advanced Technology

(a) Establishment; appointment; membership and composition; review and recommendations

There is established within the Institute a Visiting Committee on Advanced Technology (hereafter in this chapter referred to as the “Committee”). The Committee shall consist of not fewer than 9 members appointed by the Director, a majority of whom shall be from United States industry. The Director shall appoint as original members of the Committee any final members of the National Institute of Standards and Technology Visiting Committee who wish to serve in such capacity. In addition to any powers and functions otherwise granted to it by this chapter, the Committee shall review and make

recommendations regarding general policy for the Institute, its organization, its budget, and its programs within the framework of applicable national policies as set forth by the President and the Congress.

(b) Qualifications; recommendations for appointment

The persons appointed as members of the Committee—

(1) shall be eminent in fields such as business, research, new product development, engineering, labor, education, management consulting, environment, and international relations;

(2) shall be selected solely on the basis of established records of distinguished service;

(3) shall not be employees of the Federal Government; and

(4) shall be so selected as to provide representation of a cross-section of the traditional and emerging United States industries.

The Director is requested, in making appointments of persons as members of the Committee, to give due consideration to any recommendations which may be submitted to the Director by the National Academies, professional societies, business associations, labor associations, and other appropriate organizations.

(c) Terms of office; eligibility

(1) The term of office of each member of the Committee, other than the original members, shall be 3 years; except that any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term. Any person who has completed two consecutive full terms of service on the Committee shall thereafter be ineligible for appointment during the one-year period following the expiration of the second such term.

(2) The original members of the Committee shall be elected to three classes of three members each; one class shall have a term of one year, one a term of two years, and the other a term of three years.

(d) Meetings; quorum; notice

The Committee shall meet at least twice each year at the call of the Chairman or whenever one-third of the members so request in writing. A majority of the members of the Committee not having a conflict of interest in the matter being considered by the Committee shall constitute a quorum. Each member shall be given appropriate notice, whenever possible, not less than 15 days prior to any meeting, of the call of such meeting.

(e) Appointment by Committee of executive and other committees

The Committee shall have an executive committee, and may delegate to it or to the Secretary such of the powers and functions granted to the Committee by this chapter as it deems appropriate. The Committee is authorized to appoint from among its members such other committees as it deems necessary, and to assign to committees so appointed such survey and advisory functions as the Committee deems appropriate to assist it in exercising its powers and functions under this chapter.

(f) Chairman; Vice Chairman

The election of the Chairman and Vice Chairman of the Committee shall take place at each annual meeting occurring in an even-numbered year. The Vice Chairman shall perform the duties of the Chairman in his absence. In case a vacancy occurs in the chairmanship or vice chairmanship, the Committee shall elect a member to fill such vacancy.

(g) Professional and clerical staff

The Committee may, with the concurrence of a majority of its members, permit the appointment of a staff consisting of not more than four professional staff members and such clerical staff members as may be necessary. Such staff shall be appointed by the Director, after consultation with the Chairman of the Committee, and assigned at the direction of the Committee. The professional members of such staff may be appointed without regard to the provisions of title 5 governing appointments in the competitive service and the provisions of chapter 51 of title 5 relating to classification, and compensated at a rate not exceeding the appropriate rate provided for individuals in grade GS-18 of the General Schedule under section 5332 of title 5, as may be necessary to provide for the performance of such duties as may be prescribed by the Committee in connection with the exercise of its powers and functions under this chapter.

(h) Annual and other reports to Secretary and Congress

(1) The Committee shall render an annual report to the Secretary for submission to the Congress not later than 30 days after the submittal to Congress of the President's annual budget request in each year. Such report shall deal essentially, though not necessarily exclusively, with policy issues or matters which affect the Institute or with which the Committee in its official role as the private sector policy advisor of the Institute is concerned. Each such report shall identify areas of research and research techniques of the Institute of potential importance to the long-term competitiveness of United States industry, in which the Institute possesses special competence, which could be used to assist United States enterprises and United States industrial joint research and development ventures.

(2) The Committee shall render to the Secretary and the Congress such additional reports on specific policy matters as it deems appropriate.

(Mar. 3, 1901, ch. 872, § 10, 31 Stat. 1450; Pub. L. 100-418, title V, §§ 5115(a)(1), 5131(b), Aug. 23, 1988, 102 Stat. 1433, 1441; Pub. L. 104-113, § 8(1), Mar. 7, 1996, 110 Stat. 779; Pub. L. 110-69, title III, §§ 3005, 3006, Aug. 9, 2007, 121 Stat. 590; Pub. L. 114-329, title II, §§ 204(a)(1)(B)(ii), 205(a)(2)(C), title IV, § 404, Jan. 6, 2017, 130 Stat. 2998, 3001, 3023.)

Editorial Notes**AMENDMENTS**

2017—Subsec. (a). Pub. L. 114-329, § 404(1), substituted “not fewer than 9 members appointed by the Director, a majority of whom” for “15 members appointed by the Director, at least 10 of whom” and “National Institute

of Standards and Technology” for “National Bureau of Standards”.

Subsec. (h)(1). Pub. L. 114-329, §§ 205(a)(2)(C), 404(2), made identical amendments, striking out “, including the Program established under section 278n of this title,” after “which affect the Institute”.

Pub. L. 114-329, § 204(a)(1)(B)(ii), struck out at end “Such report also shall comment on the programmatic planning document and updates thereto submitted to Congress by the Director under subsections (c) and (d) of section 278i of this title.”

2007—Subsec. (d). Pub. L. 110-69, § 3006, substituted “twice each year” for “quarterly”.

Subsec. (h)(1). Pub. L. 110-69, § 3005, substituted “not later than 30 days after the submittal to Congress of the President's annual budget request in each year” for “on or before January 31 in each year” and inserted at end “Such report also shall comment on the programmatic planning document and updates thereto submitted to Congress by the Director under subsections (c) and (d) of section 278i of this title.”

1996—Subsec. (a). Pub. L. 104-113 substituted “15 members” for “nine members” and “at least 10” for “at least five”.

1988—Pub. L. 100-418, § 5131(b), amended section generally, substituting provisions of subsecs. (a) to (h) relating to Visiting Committee on Advanced Technology for provisions of former single undesignated paragraph which related to a visiting committee which was to visit bureau at least once a year and report to Secretary of Commerce upon efficiency of its scientific work and condition of its equipment.

Pub. L. 100-418, § 5115(a)(1), substituted “Institute” for “bureau”.

Statutory Notes and Related Subsidiaries**REFERENCES IN OTHER LAWS TO GS-16, 17, OR 18 PAY RATES**

References in laws to the rates of pay for GS-16, 17, or 18, or to maximum rates of pay under the General Schedule, to be considered references to rates payable under specified sections of Title 5, Government Organization and Employees, see section 529 [title I, § 101(c)(1)] of Pub. L. 101-509, set out in a note under section 5376 of Title 5.

§ 278a. Repealed. Pub. L. 88-611, § 4(a)(1), Oct. 2, 1964, 78 Stat. 991

Section, act Mar. 3, 1901, ch. 872, § 11, as added July 22, 1950, ch. 486, § 2, 64 Stat. 373; amended Aug. 3, 1956, ch. 906, § 2, 70 Stat. 959; Sept. 2, 1958, Pub. L. 85-890, § 2, 72 Stat. 1712, provided for acceptance of gifts and bequests. See sections 1522 and 1523 of this title.

§ 278b. Working Capital Fund**(a) Utilization**

The Institute is authorized to utilize in the performance of its functions the Working Capital Fund established by the Act of June 29, 1950 (64 Stat. 275).

(b) Availability of Fund

The working capital of the fund shall be available for obligation and payment for any activities authorized by this chapter, and for any activities for which provision is made in the appropriations which reimburse the fund.

(c) Reimbursements

In the performance of authorized activities, the Working Capital Fund shall be available and may be reimbursed for expenses of hire of automobile, hire of consultants, and travel to meetings, to the extent that such expenses are authorized for the appropriations of the Department of Commerce.

(d) Credits

The fund may be credited with advances and reimbursements, including receipts from non-Federal sources, for services performed under the authority of section 273 of this title.

(e) “Cost” defined

As used in this chapter, the term “cost” shall be construed to include directly related expenses and appropriate charges for indirect and administrative expenses.

(f) Distribution of earnings; restoration of prior impairment

The amount of any earned net income resulting from the operation of the fund at the close of each fiscal year shall be paid into the general fund of the Treasury: *Provided*, That such earned net income may be applied to restore any prior impairment of the fund, and to ensure the availability of working capital necessary to replace equipment and inventories.

(Mar. 3, 1901, ch. 872, § 12, as added Aug. 3, 1956, ch. 906, § 2, 70 Stat. 959; amended Pub. L. 95-322, § 2(a), July 21, 1978, 92 Stat. 395; Pub. L. 99-73, § 5(a), July 29, 1985, 99 Stat. 172; Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433.)

Editorial Notes

REFERENCES IN TEXT

Act of June 29, 1950 (64 Stat. 275), referred to in subsec. (a), was the Deficiency Appropriation Act, 1950. Provisions thereof relating to Working Capital Fund are not classified to the Code.

PRIOR PROVISIONS

A prior section 12 of act Mar. 3, 1901, ch. 872, as added by act July 22, 1950, ch. 486, § 2, 64 Stat. 373, related to equipment purchased by Department of Commerce to carry out investigations, prior to repeal by act Aug. 3, 1956.

AMENDMENTS

1988—Subsec. (a). Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards”.

1985—Subsec. (f). Pub. L. 99-73 struck out “first” after “may be applied”, and inserted provisions relating to working capital for replacement of equipment and inventories.

1978—Subsec. (a). Pub. L. 95-322 struck out “, and additional amounts as from time to time may be required for the purposes of said fund are authorized to be appropriated” after “(64 Stat. 275)”.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 1985 AMENDMENT

Amendment by Pub. L. 99-73 effective Oct. 1, 1984, see section 5(c) of Pub. L. 99-73, set out as an Effective Date note under section 275c of this title.

§ 278c. Acquisition of land for field sites

To the extent that funds are specifically appropriated therefor, the Secretary of Commerce is authorized to acquire land for such field sites as are necessary for the proper and efficient conduct of the activities authorized herein.

(Mar. 3, 1901, ch. 872, § 13, as added Pub. L. 85-890, § 1, Sept. 2, 1958, 72 Stat. 1711.)

Editorial Notes

REFERENCES IN TEXT

“Herein”, referred to in text, refers to act Mar. 3, 1901, ch. 872, which is classified generally to this chapter.

PRIOR PROVISIONS

A prior section 13 of act Mar. 3, 1901, ch. 872, as added July 22, 1950, ch. 486, § 2, 64 Stat. 373, related to acceptance of gifts and bequests, prior to repeal by act Aug. 3, 1956. See sections 1522 and 1523 of this title.

§ 278d. Construction and improvement of buildings and facilities**(a) In general**

Within the limits of funds which are appropriated for the Institute, the Secretary of Commerce is authorized to undertake such construction of buildings and other facilities and to make such improvements to existing buildings, grounds, and other facilities occupied or used by the Institute as are necessary for the proper and efficient conduct of the activities authorized herein.

(b) Retention of fees

The Director is authorized to retain all building use and depreciation surcharge fees collected pursuant to OMB Circular A-25. Such fees shall be collected and credited to the Construction of Research Facilities Appropriation Account for use in maintenance and repair of the Institute's existing facilities.

(Mar. 3, 1901, ch. 872, § 14, as added Pub. L. 85-890, § 1, Sept. 2, 1958, 72 Stat. 1711; amended Pub. L. 92-317, § 3(d), June 22, 1972, 86 Stat. 235; Pub. L. 96-461, § 8, Oct. 15, 1980, 94 Stat. 2051; Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 102-245, title I, § 104(f), Feb. 14, 1992, 106 Stat. 11; Pub. L. 110-69, title III, § 3014, Aug. 9, 2007, 121 Stat. 599.)

Editorial Notes

REFERENCES IN TEXT

“Herein”, referred to in subsec. (a), refers to act Mar. 3, 1901, ch. 872, which is classified generally to this chapter.

AMENDMENTS

2007—Pub. L. 110-69 designated existing provisions as subsec. (a), inserted heading, and added subsec. (b).

1992—Pub. L. 102-245 substituted “herein.” for “herein: *Provided*, That no improvement shall be made nor shall any building be constructed under this authority at a cost in excess of \$250,000 unless specific provision is made therefor in the appropriation concerned.”

1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards” wherever appearing.

1980—Pub. L. 96-461 substituted “\$250,000” for “\$75,000”.
1972—Pub. L. 92-317 substituted “\$75,000” for “\$40,000”.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 1980 AMENDMENT

Amendment by Pub. L. 96-461 effective Oct. 1, 1980, see section 11 of Pub. L. 96-461, set out as an Effective Date note under section 278g of this title.

FACILITIES FOR COLD NEUTRON RESEARCH

Pub. L. 101-162, title I, § 104, Nov. 21, 1989, 103 Stat. 994, provided that: “Hereafter, the National Institute of

Standards and Technology is authorized to accept contributions of funds, to remain available until expended, from any public or private source to construct a facility for cold neutron research on materials, notwithstanding the limitations contained in 15 U.S.C. 278d.”

§ 278e. Functions and activities

In the performance of the functions of the Institute the Secretary of Commerce is authorized to undertake the following activities: (a) The purchase, repair, and cleaning of uniforms for guards; (b) the care, maintenance, protection, repair, and alteration of Institute buildings and other plant facilities, equipment, and property; (c) the rental of field sites and laboratory, office, and warehouse space; (d) the purchase of reprints from technical journals or other periodicals and the payment of page charges for the publication of research papers and reports in such journals; (e) the furnishing of food and shelter without repayment therefor to employees of the Government at Arctic and Antarctic stations; (f) for the conduct of observations on radio propagation phenomena in the Arctic or Antarctic regions, the appointment of employees at base rates established by the Secretary of Commerce which shall not exceed such maximum rates as may be specified from time to time in the appropriation concerned, and without regard to the civil service and classification laws and sections 5542 to 5546 of title 5; (g) the erection on leased property of specialized facilities and working and living quarters when the Secretary of Commerce determines that this will best serve the interests of the Government; and (h) the provision of transportation services for employees of the Institute between the facilities of the Institute and nearby public transportation, notwithstanding section 1344 of title 31.

(Mar. 3, 1901, ch. 872, §15, as added Pub. L. 85–890, §1, Sept. 2, 1958, 72 Stat. 1711; amended Pub. L. 92–317, §3(e), June 22, 1972, 86 Stat. 235; Pub. L. 100–418, title V, §5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 104–113, §8(2), Mar. 7, 1996, 110 Stat. 779.)

Editorial Notes

CODIFICATION

“Sections 5542 to 5546 of title 5” substituted in text for “titles II and III of the Federal Employees Pay Act of 1945” on authority of Pub. L. 89–554, §7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

AMENDMENTS

1996—Pub. L. 104–113 struck out “and” before “(g)” and inserted before period at end “; and (h) the provision of transportation services for employees of the Institute between the facilities of the Institute and nearby public transportation, notwithstanding section 1344 of title 31”.

1988—Pub. L. 100–418 substituted “functions of the Institute” for “functions of the National Bureau of Standards” and “Institute buildings” for “Bureau buildings”.

1972—Pub. L. 92–317 substituted, in cl. (b), “the care, maintenance, protection, repair, and alteration of Bureau buildings and other plant facilities, equipment, and property” for “the repair and alteration of buildings and other plant facilities”.

Statutory Notes and Related Subsidiaries

NIST CAMPUS SECURITY

Pub. L. 114–329, title I, §113, Jan. 6, 2017, 130 Stat. 2993, which authorized the Department of Commerce Office of Security to directly manage the law enforcement and site security programs of the National Institute of Standards and Technology (NIST) and required the Director of Security for NIST to provide an activities and security report to the Under Secretary for Standards and Technology and the Committee on Commerce, Science, and Transportation of the Senate and Committee on Science, Space, and Technology of the House of Representatives, was repealed by Pub. L. 117–167, div. B, title II, §10246(c), Aug. 9, 2022, 136 Stat. 1492.

§ 278f. Fire Research Center

(a) Establishment; programs of research; functions of Secretary; dissemination of information

There is hereby established within the Department of Commerce a Fire Research Center which shall have the mission of performing and supporting research on all aspects of fire with the aim of providing scientific and technical knowledge applicable to the prevention and control of fires. The content and priorities of the research program shall be determined in consultation with the Administrator of the United States Fire Administration. In implementing this section, the Secretary is authorized to conduct, directly or through contracts or grants, a fire research program, including—

(1) basic and applied fire research for the purpose of arriving at an understanding of the fundamental processes underlying all aspects of fire. Such research shall include scientific investigations of—

(A) the physics and chemistry of combustion processes;

(B) the dynamics of flame ignition, flame spread, and flame extinguishment;

(C) the composition of combustion products developed by various sources and under various environmental conditions;

(D) the early stages of fires in buildings and other structures, structural subsystems and structural components in all other types of fires, including, but not limited to, forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires, with the aim of improving early detection capability;

(E) the behavior of fires involving all types of buildings and other structures and their contents (including mobile homes and highrise buildings, construction materials, floor and wall coverings, coatings, furnishings, and other combustible materials), and all other types of fires, including forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires;

(F) the unique fire hazards arising from the transportation and use, in industrial and professional practices, of combustible gases, fluids, and materials;

(G) design concepts for providing increased fire safety consistent with habitability, comfort, and human impact in buildings and other structures;

(H) such other aspects of the fire process as may be deemed useful in pursuing the objectives of the fire research program; and

(I) methods, procedures, and equipment for arson prevention, detection, and investigation;

(2) research into the biological, physiological, and psychological factors affecting human victims of fire, and the performance of individual members of fire services, including—

(A) the biological and physiological effects of toxic substances encountered in fires;

(B) the trauma, cardiac conditions, and other hazards resulting from exposure to fire;

(C) the development of simple and reliable tests for determining the cause of death from fires;

(D) improved methods of providing first aid to victims of fires;

(E) psychological and motivational characteristics of persons who engage in arson, and the prediction and cure of such behavior;

(F) the conditions of stress encountered by firefighters, the effects of such stress, and the alleviation and reduction of such conditions; and

(G) such other biological, psychological, and physiological effects of fire as have significance for purposes of control or prevention of fires; and

(3) operation tests, demonstration projects, and fire investigations in support of the activities set forth in this section.

The Secretary shall insure that the results and advances arising from the work of the research program are disseminated broadly. He shall encourage the incorporation, to the extent applicable and practicable, of such results and advances in building codes, fire codes, and other relevant codes, test methods, fire service operations and training, and standards. The Secretary is authorized to encourage and assist in the development and adoption of uniform codes, test methods, and standards aimed at reducing fire losses and costs of fire protection.

(b) Authorization of appropriations

For purposes of this section, there are authorized to be appropriated an amount not to exceed \$5,650,000 for the fiscal year ending September 30, 1980, which amount includes—

(1) \$525,000 for programs which are recommended in the report submitted to the Congress by the Administrator of the United States Fire Administration pursuant to section 2220(b)(1)¹ of this title; and

(2) \$119,000 for adjustments required by law in salaries, pay, retirement, and employee benefits.

(Mar. 3, 1901, ch. 872, § 16, as added Pub. L. 93-498, § 18, Oct. 29, 1974, 88 Stat. 1545; amended Pub. L. 94-411, § 1(b), Sept. 13, 1976, 90 Stat. 1254; Pub. L. 95-422, §§ 1(b), 2(b), 3(b), Oct. 5, 1978, 92 Stat. 932, 933; Pub. L. 96-121, § 3, Nov. 16, 1979, 93 Stat. 863.)

Editorial Notes

REFERENCES IN TEXT

Section 2220(b)(1) of this title, referred to in subsec. (b)(1), was repealed by Pub. L. 106-503, title I, § 110(a)(1)(D), Nov. 13, 2000, 114 Stat. 2302.

¹ See References in Text note below.

PRIOR PROVISIONS

A prior section 16 of act Mar. 3, 1901, as added by act Mar. 1, 1968, Pub. L. 90-259, title I, § 102, 82 Stat. 35, related to fire research and safety programs, prior to repeal by act Oct. 29, 1974.

AMENDMENTS

1979—Subsec. (b). Pub. L. 96-121 substituted provisions authorizing to be appropriated an amount not to exceed \$5,650,000 for the fiscal year ending Sept. 30, 1980, for provisions authorizing appropriations not to exceed \$1,275,000 for the transitional fiscal quarter of July 1, 1976, through Sept. 30, 1976, not to exceed \$5,500,000 for the fiscal year ending Sept. 30, 1977, not to exceed \$6,000,000 for the fiscal year ending Sept. 30, 1978, and not to exceed \$5,600,000 for the fiscal year ending Sept. 30, 1979, and added pars. (1) and (2).

1978—Subsec. (a). Pub. L. 95-422, §§ 2(b), 3(b), in provisions preceding par. (1) substituted “United States Fire Administration” for “National Fire Prevention and Control Administration” and added par. (1)(I).

Subsec. (b). Pub. L. 95-422, § 1(b), inserted provision authorizing appropriation of not to exceed \$5,600,000 for the fiscal year ending Sept. 30, 1979.

1976—Subsec. (b). Pub. L. 94-411 substituted provisions authorizing to be appropriated not to exceed \$1,275,000 for the transitional fiscal quarter of July 1, 1976, through Sept. 30, 1976, not to exceed \$5,500,000 for the fiscal year ending Sept. 30, 1977, and not to exceed \$6,000,000 for the fiscal year ending Sept. 30, 1978, for provisions authorizing to be appropriated not to exceed \$3,500,000 for the fiscal year ending June 30, 1975, and not to exceed \$4,000,000 for the fiscal year ending June 30, 1976.

Statutory Notes and Related Subsidiaries

TERMINATION OF ADVISORY COUNCILS

Advisory councils in existence on Jan. 5, 1973, to terminate not later than the expiration of the 2-year period following Jan. 5, 1973, unless, in the case of a council established by the President or an officer of the Federal Government, such council is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a council established by the Congress, its duration is otherwise provided by law. See sections 1001(2) and 1013 of Title 5, Government Organization and Employees.

COMBINATION OF FIRE RESEARCH AND BUILDING TECHNOLOGY PROGRAMS

Pub. L. 102-245, title I, § 104(g), Feb. 14, 1992, 106 Stat. 11, provided that: “The fire research and building technology programs of the Institute may be combined for administrative purposes only, and separate budget accounts for fire research and building technology shall be maintained. No later than December 31, 1992, the Secretary, acting through the Director of the Institute, shall report to Congress on the results of the combination, on efforts to preserve the integrity of the fire research and building technology programs, on the long-range basic and applied research plans of the two programs, on procedures for receiving advice on fire and earthquake research priorities from constituencies concerned with public safety, and on the relation between the combined program at the Institute and the United States Fire Administration.”

NATIONAL COMMISSION ON FIRE PREVENTION AND CONTROL

Pub. L. 90-259, §§ 101, 103, 104, and 201-207, established the National Commission on Fire Prevention and Control, directed the commission to study and investigate measures to reduce the destructive effects of fire throughout the country, and provided that the commission cease to exist thirty days after the submission of its report which was to be made no later than two years after the commission had been organized.

Executive Documents

EXECUTIVE ORDER NO. 11654

Ex. Ord. No. 11654, Mar. 13, 1972, 37 F.R. 5361, which established in the Department of Commerce the Federal Fire Council and provided for its membership, functions, etc., was revoked by Ex. Ord. No. 12379, §19, Aug. 17, 1982, 47 F.R. 36100, formerly set out as a note under section 1013 of Title 5, Government Organization and Employees.

§ 278g. International activities**(a) Financial assistance to foreign nationals**

The Secretary is authorized, notwithstanding any other provision of law, to expend such sums, within the limit of appropriated funds, as the Secretary may determine desirable through direct support for activities of international organizations and foreign national metrology institutes with which the Institute cooperates to advance measurement methods, technical standards, and related basic technologies, for official representation, to host official receptions, dinners, and similar events, and to otherwise extend official courtesies, including transportation of foreign dignitaries and representatives of foreign national metrology institutes to and from the Institute, for the purpose of maintaining the standing and prestige of the Department of Commerce and the Institute, through the grant of fellowships or other appropriate form of financial or logistical assistance or support to foreign nationals not in service to the Government of the United States while they are performing scientific or engineering work at the Institute or participating in the exchange of scientific or technical information at the Institute.

(b) Foreign assistance and compensation to Institute employees

The Congress consents to the acceptance by employees of the Institute of fellowships, lectureships, or other positions for the performance of scientific or engineering activities or for the exchange of scientific or technical information, offered by a foreign government, and to the acceptance and retention by an employee of the Institute of any form of financial or other assistance provided by a foreign government as compensation for or as a means of defraying expenses associated with the performance of scientific or engineering activities or the exchange of scientific or technical information, in any case where the acceptance of such fellowship, lectureship, or position or the acceptance and retention of such assistance is determined by the Secretary to be appropriate and consistent with the interests of the United States. For the purposes of this subsection, the definitions appearing in section 7342(a) of title 5 apply. Civil actions may be brought and penalties assessed against any employee who knowingly accepts and retains assistance from a foreign government not consented to by this subsection in the same manner as is prescribed by section 7342(h) of title 5.

(c) Prohibition on use of appropriations inapplicable

Provisions of law prohibiting the use of any part of any appropriation for the payment of compensation to any employee or officer of the

Government of the United States who is not a citizen of the United States shall not apply to the payment of compensation to scientific or engineering personnel of the Institute.

(d) Recruitment and employment of resident aliens

For any scientific and engineering disciplines for which there is a shortage of suitably qualified and available United States citizens and nationals, the Secretary is authorized to recruit and employ in scientific and engineering fields at the Institute foreign nationals who have been lawfully admitted to the United States for permanent residence under the Immigration and Nationality Act [8 U.S.C. 1101 et seq.] and who intend to become United States citizens. Employment of a person under this paragraph shall not be subject to the provisions of title 5 governing employment in the competitive service, or to any prohibition in any other Act against the employment of aliens, or against the payment of compensation to them.

(Mar. 3, 1901, ch. 872, §17, as added Pub. L. 96-461, §9, Oct. 15, 1980, 94 Stat. 2051; amended Pub. L. 100-418, title V, §5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 102-245, title I, §104(h)(2), Feb. 14, 1992, 106 Stat. 11; Pub. L. 117-167, div. B, title II, §10246(a)(1), Aug. 9, 2022, 136 Stat. 1491.)

Editorial Notes**REFERENCES IN TEXT**

The Immigration and Nationality Act, referred to in subsec. (d), is act June 27, 1952, ch. 477, 66 Stat. 163, which is classified principally to chapter 12 (§1101 et seq.) of Title 8, Aliens and Nationality. For complete classification of this Act to the Code, see Short Title note set out under section 1101 of Title 8 and Tables.

PRIOR PROVISIONS

A prior section 278g, act Mar. 3, 1901, ch. 872, §17, as added Mar. 1, 1968, Pub. L. 90-259, title I, §102, 82 Stat. 35, related to grants to States, local governments, other non-Federal public agencies, and non-profit institutions, reimbursement of Federal agencies, delegation of powers, advance of public moneys, cooperation of Federal agencies, and issuance of rules and regulations, prior to repeal by Pub. L. 93-498, §18, Oct. 29, 1974, 88 Stat. 1545.

AMENDMENTS

2022—Subsec. (a). Pub. L. 117-167 amended subsec. (a) generally. Prior to amendment, text read as follows: “The Secretary is authorized, notwithstanding any other provision of law, to expend such sums, within the limit of appropriated funds, as the Secretary may deem desirable, through the grant of fellowships or any other form of financial assistance, to defray the expenses of foreign nationals not in service to the Government of the United States while they are performing scientific or engineering work at the Institute or participating in the exchange of scientific or technical information at the Institute.”

1992—Subsec. (d). Pub. L. 102-245 added subsec. (d).

1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards” wherever appearing.

Statutory Notes and Related Subsidiaries**EFFECTIVE DATE**

Pub. L. 96-461, §11, Oct. 15, 1980, 94 Stat. 2052, provided that: “The effective date of sections 8 and 9 of this Act [enacting this section, amending section 278d of this title, and enacting provisions set out below] shall be October 1, 1980.”

CONGRESSIONAL DECLARATION OF PURPOSE

Pub. L. 96-461, §9, Oct. 15, 1980, 94 Stat. 2051, as amended by Pub. L. 100-418, title V, §5115(c), Aug. 23, 1988, 102 Stat. 1433, provided in part that this section was enacted “[i]n order to develop and strengthen the expertise of the National Institute of Standards and Technology in science and engineering, to enhance the Secretary’s ability to maintain the Institute’s programs at the forefront of worldwide developments in science and engineering, and to cooperate in international scientific activities”.

§ 278g-1. Education and outreach**(a) In general**

The Director is authorized to expend funds appropriated for activities of the Institute in any fiscal year, to support, promote, and coordinate activities and efforts to enhance public awareness and understanding of measurement sciences, standards and technology at the national measurement laboratories and otherwise in fulfillment of the mission of the Institute. The Director shall carry out activities under this subsection, including education and outreach activities to the general public, industry and diverse types of institutions of higher education, including historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, and community colleges in support of the Institute’s mission.

(b) Hiring

The Director, in coordination with the Director of the Office of Personnel Management, may revise the procedures the Director applies when making appointments to laboratory positions within the competitive service—

- (1) to ensure corporate memory of and expertise in the fundamental ongoing work, and on developing new capabilities in priority areas;
- (2) to maintain high overall technical competence;
- (3) to improve staff diversity;
- (4) to balance emphases on the noncore and core areas; or
- (5) to improve the ability of the Institute to compete in the marketplace for qualified personnel.

(c) Volunteers**(1) In general**

The Director may establish a program to use volunteers in carrying out the programs of the Institute.

(2) Acceptance of personnel

The Director may accept, subject to regulations issued by the Office of Personnel Management, voluntary service for the Institute for such purpose if the service—

- (A) is to be without compensation; and
- (B) will not be used to displace any current employee or act as a substitute for any future full-time employee of the Institute.

(3) Federal employee status

Any individual who provides voluntary service under this subsection shall not be considered a Federal employee, except for purposes of chapter 81 of title 5 (relating to compensation for injury), and sections 2671 through 2680 of title 28 (relating to tort claims).

(d) Research fellowships**(1) In general**

The Director may expend funds appropriated for activities of the Institute in any fiscal year, as the Director considers appropriate, for awards of research fellowships and other forms of financial and logistical assistance, including direct stipend awards to—

- (A) students at institutions of higher learning within the United States who show promise as present or future contributors to the mission of the Institute; and
- (B) United States citizens for research and technical activities of the Institute, including programs.

(2) Selection criteria

The selection of persons to receive such fellowships and assistance shall be made on the basis of ability and of the relevance of the proposed work to the mission and programs of the Institute.

(3) Financial and logistical assistance

Notwithstanding section 1345 of title 31 or any other law to the contrary, the Director may include as a form of financial or logistical assistance under this subsection temporary housing and transportation to and from Institute facilities.

(e) Educational outreach activities

The Director may—

- (1) facilitate education programs for undergraduate and graduate students, postdoctoral researchers, and academic and industry employees;
- (2) sponsor summer workshops for STEM kindergarten through grade 12 teachers as appropriate;
- (3) develop programs for graduate student internships and visiting faculty researchers;
- (4) document publications, presentations, and interactions with visiting researchers and sponsoring interns as performance metrics for improving and continuing interactions with those individuals;
- (5) facilitate laboratory tours and provide presentations for educational, industry, and community groups; and¹
- (6) conduct outreach to and develop research collaborations with historically Black colleges and universities, Tribal Colleges or Universities, and minority serving institutions, including through the recruitment of students and faculty at such institutions to participate in programs developed under paragraph (3);
- (7) conduct outreach to and develop research collaborations with community colleges, including through the recruitment of students and faculty at such institutions to participate in programs developed under paragraph (3);
- (8) carry out other activities to increase the participation of persons historically underrepresented in STEM in the Institute’s programs; and
- (9) conduct outreach to and develop collaborations with nontraditional educational organizations, including those that offer training

¹ So in original. The word “and” probably should not appear.

through nonprofit associations and professional associations or professional societies, to engage persons historically underrepresented in STEM through programs developed under this subsection.

(Mar. 3, 1901, ch. 872, § 18, as added Pub. L. 114-329, title III, § 306(b), Jan. 6, 2017, 130 Stat. 3008; amended Pub. L. 117-167, div. B, title II, § 10241, Aug. 9, 2022, 136 Stat. 1486.)

Editorial Notes

PRIOR PROVISIONS

A prior section 278g-1, act Mar. 3, 1901, ch. 872, § 18, as added Pub. L. 99-574, § 6(a), Oct. 28, 1986, 100 Stat. 3237; amended Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 102-245, title I, § 104(h)(1), Feb. 14, 1992, 106 Stat. 11; Pub. L. 110-69, title III, §§ 3008, 3013(a), Aug. 9, 2007, 121 Stat. 591, 598; Pub. L. 111-358, title IV, §§ 406(a), § 407(b), Jan. 4, 2011, 124 Stat. 4003, 4004, related to research fellowships and other financial assistance to students at institutes of higher education, prior to repeal by Pub. L. 114-329, title III, § 306(a), Jan. 6, 2017, 130 Stat. 3008.

A prior section 18 of act Mar. 3, 1901, ch. 872, was re-numbered section 32 and is classified to section 278q of this title.

AMENDMENTS

2022—Subsec. (a). Pub. L. 117-167, § 10241(1), substituted “shall” for “may” and “diverse types of institutions of higher education, including historically Black colleges and universities, Tribal Colleges and Universities, and minority-serving institutions, and community colleges” for “academia”.

Subsec. (e)(6) to (9). Pub. L. 117-167, § 10241(2), added pars. (6) to (9).

Statutory Notes and Related Subsidiaries

SAVINGS CLAUSE FOR RESEARCH FELLOWSHIPS AND OTHER FINANCIAL ASSISTANCE TO STUDENTS AT INSTITUTES OF HIGHER EDUCATION

Pub. L. 114-329, title III, § 306(d)(1), Jan. 6, 2017, 130 Stat. 3010, provided that: “The repeal made by subsection (a) of this section [repealing this section] shall not affect any award of a research fellowship or other form of financial assistance made under section 18 of the National Institute of Standards and Technology Act (15 U.S.C. 278g-1) before the date of enactment of this Act [Jan. 6, 2017]. Such award shall continue to be subject to the requirements to which such funds were subject under that section before the date of enactment of this Act.”

§ 278g-2. Post-doctoral fellowship program

(a) In general

The Institute and the National Academy of Sciences, jointly, shall establish and conduct a post-doctoral fellowship program, subject to the availability of appropriations.

(b) Organization

The post-doctoral fellowship program shall include not less than 20 new fellows per fiscal year.

(c) Evaluations

In evaluating applications for post-doctoral fellowships under this section, the Director of the Institute and the President of the National Academy of Sciences shall give consideration to the goal of promoting the participation of individuals identified in sections 1885a and 1885b of

title 42 in research areas supported by the Institute.

(Mar. 3, 1901, ch. 872, § 19, as added Pub. L. 99-574, § 8(a), Oct. 28, 1986, 100 Stat. 3238; amended Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 104-113, § 8(3), Mar. 7, 1996, 110 Stat. 779; Pub. L. 110-69, title III, § 3015, Aug. 9, 2007, 121 Stat. 599; Pub. L. 111-358, title IV, §§ 406(b), 407(a), Jan. 4, 2011, 124 Stat. 4004; Pub. L. 114-329, title III, § 306(c), Jan. 6, 2017, 130 Stat. 3010.)

Editorial Notes

PRIOR PROVISIONS

A prior section 19 of act Mar. 3, 1901, ch. 872, was re-numbered section 32 and is classified to section 278q of this title.

AMENDMENTS

2017—Pub. L. 114-329 amended section generally. Prior to amendment, text read as follows: “The Institute shall establish and conduct a post-doctoral fellowship program, subject to the availability of appropriations, which shall be organized and carried out in substantially the same manner as the National Academy of Sciences/National Research Council Post-Doctoral Research Associate Program that was in effect prior to 1986, and which shall include not less than twenty nor more than 120 new fellows per fiscal year. In evaluating applications for fellowships under this section, the Director shall give consideration to the goal of promoting the participation of underrepresented minorities in research areas supported by the Institute.”

2011—Pub. L. 111-358, § 407(a), struck out “, in conjunction with the National Academy of Sciences,” after “The Institute”.

Pub. L. 111-358, § 406(b), inserted at end “In evaluating applications for fellowships under this section, the Director shall give consideration to the goal of promoting the participation of underrepresented minorities in research areas supported by the Institute.”

2007—Pub. L. 110-69 substituted “nor more than 120 new fellows” for “nor more than 60 new fellows”.

1996—Pub. L. 104-113 inserted “, subject to the availability of appropriations,” after “post-doctoral fellowship program” and substituted “nor more than 60” for “nor more than forty”.

1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards”.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE

Pub. L. 99-574, § 8(b), Oct. 28, 1986, 100 Stat. 3238, provided that: “The amendments made by subsection (a) [enacting this section] shall be effective October 1, 1987.”

SAVINGS CLAUSE FOR POST-DOCTORAL FELLOWSHIP PROGRAM

Pub. L. 114-329, title III, § 306(d)(2), Jan. 6, 2017, 130 Stat. 3010, provided that: “The amendment made by subsection (c) of this section [amending this section] shall not affect any award of a post-doctoral fellowship or other form of financial assistance made under section 19 of the National Institute of Standards and Technology Act (15 U.S.C. 278g-2) before the date of enactment of this Act [Jan. 6, 2017]. Such awards shall continue to be subject to the requirements to which such funds were subject under that section before the date of enactment of this Act.”

§ 278g-2a. Teacher science and technology enhancement Institute program

(a) Establishment

The Director shall establish within the Institute a teacher science and technology enhance-

ment program to provide for professional development of mathematics and science teachers of elementary, middle, and secondary schools (as those terms are defined by the Director), including providing for the improvement of those teachers with respect to the understanding of science and the impacts of science on commerce.

(b) Areas of focus

In carrying out the program under this section, the Director shall focus on the areas of—

- (1) scientific measurements;
- (2) tests and standards development;
- (3) industrial competitiveness and quality;
- (4) manufacturing;
- (5) technology transfer; and
- (6) any other area of expertise of the Institute that the Director determines to be appropriate.

(c) Procedures and selection criteria

The Director shall develop and issue procedures and selection criteria for participants in the program. The Director shall give special consideration to an application from a teacher from a high-need school, as defined in section 1021 of title 20.

(d) Scheduling

The program under this section shall be conducted on an annual basis during the summer months, during the period of time when a majority of elementary, middle, and secondary schools have not commenced a school year.

(e) Means of accomplishing goals

The program shall provide for teachers' participation in activities at the laboratory facilities of the Institute, or shall utilize other means of accomplishing the goals of the program as determined by the Director, which may include the Internet, video conferencing and recording, and workshops and conferences.

(Mar. 3, 1901, ch. 872, § 19A, as added Pub. L. 105-309, § 7, Oct. 30, 1998, 112 Stat. 2937; amended Pub. L. 111-358, title IV, § 406(c), Jan. 4, 2011, 124 Stat. 4004.)

Editorial Notes

AMENDMENTS

2011—Subsec. (c). Pub. L. 111-358 inserted at end “The Director shall give special consideration to an application from a teacher from a high-need school, as defined in section 1021 of title 20.”

§ 278g-3. Computer standards program

(a) In general

The Institute shall—

- (1) have the mission of developing standards, guidelines, and associated methods and techniques for information systems;
- (2) develop standards and guidelines, including minimum requirements, for information systems used or operated by an agency or by a contractor of an agency or other organization on behalf of an agency, other than national security systems (as defined in section 3552(b)(6) of title 44);
- (3) develop standards and guidelines, including minimum requirements, for providing adequate information security for all agency op-

erations and assets, but such standards and guidelines shall not apply to national security systems;

(4) carry out the responsibilities described in paragraph (3) through the Computer Security Division; and

(5) identify and develop standards and guidelines for improving the cybersecurity workforce for an agency as part of the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework (NIST Special Publication 800-181), or successor framework.

(b) Minimum requirements for standards and guidelines

The standards and guidelines required by subsection (a) shall include, at a minimum—

(1)(A) standards to be used by all agencies to categorize all information and information systems collected or maintained by or on behalf of each agency based on the objectives of providing appropriate levels of information security according to a range of risk levels;

(B) guidelines recommending the types of information and information systems to be included in each such category; and

(C) minimum information security requirements for information and information systems in each such category;

(2) a definition of and guidelines concerning detection and handling of information security incidents;

(3) guidelines developed in coordination with the National Security Agency for identifying an information system as a national security system consistent with applicable requirements for national security systems, issued in accordance with law and as directed by the President; and

(4) performance standards and guidelines for high risk biometric identification systems, including facial recognition systems, accounting for various use cases, types of biometric identification systems, and relevant operational conditions.

(c) Development of standards and guidelines

In developing standards and guidelines required by subsections (a) and (b), the Institute shall—

(1) consult with other agencies and offices (including, but not limited to, the Director of the Office of Management and Budget, the Departments of Defense and Energy, the National Security Agency, the Government Accountability Office, and the Secretary of Homeland Security) to assure—

(A) use of appropriate information security policies, procedures, and techniques, in order to improve information security and avoid unnecessary and costly duplication of effort; and

(B) that such standards and guidelines are complementary with standards and guidelines employed for the protection of national security systems and information contained in such systems;

(2) provide the public with an opportunity to comment on proposed standards and guidelines;

(3) submit such standards and guidelines to the Secretary of Commerce for promulgation under section 11331 of title 40;

(4) issue guidelines as required under subsection (b)(1)(B), no later than 18 months after November 25, 2002;

(5) ensure that such standards and guidelines do not require specific technological solutions or products, including any specific hardware or software security solutions;

(6) ensure that such standards and guidelines provide for sufficient flexibility to permit alternative solutions to provide equivalent levels of protection for identified information security risks; and

(7) use flexible, performance-based standards and guidelines that, to the greatest extent possible, permit the use of off-the-shelf commercially developed information security products.

(d) Information security functions

The Institute shall—

(1) submit standards developed pursuant to subsection (a), along with recommendations as to the extent to which these should be made compulsory and binding, to the Secretary of Commerce for promulgation under section 11331 of title 40;

(2) provide assistance to agencies regarding—

(A) compliance with the standards and guidelines developed under subsection (a);

(B) detecting and handling information security incidents; and

(C) information security policies, procedures, and practices;

(3) conduct research and analysis—

(A) to determine the nature and extent of information security vulnerabilities and techniques for providing cost-effective information security;

(B) to review and determine prevalent information security challenges and deficiencies identified by agencies or the Institute, including any challenges or deficiencies described in any of the annual reports under section 3553 or 3554 of title 44, and in any of the reports and the independent evaluations under section 3555 of that title, that may undermine the effectiveness of agency information security programs and practices; and

(C) to evaluate the effectiveness and sufficiency of, and challenges to, Federal agencies' implementation of standards and guidelines developed under this section and policies and standards promulgated under section 11331 of title 40;

(4) develop and periodically revise performance indicators and measures for agency information security policies and practices;

(5) evaluate private sector information security policies and practices and commercially available information technologies to assess potential application by agencies to strengthen information security;

(6) evaluate security policies and practices developed for national security systems to assess potential application by agencies to strengthen information security;

(7) periodically assess the effectiveness of standards and guidelines developed under this section and undertake revisions as appropriate;

(8) solicit and consider the recommendations of the Information Security and Privacy Advisory Board, established by section 278g-4 of this title, regarding standards and guidelines developed under subsection (a) and submit such recommendations to the Secretary of Commerce with such standards submitted to the Secretary; and

(9) prepare an annual public report on activities undertaken in the previous year, and planned for the coming year, to carry out responsibilities under this section.

(e) Intramural security research

As part of the research activities conducted in accordance with subsection (d)(3), the Institute shall, to the extent practicable and appropriate—

(1) conduct a research program to develop a unifying and standardized identity, privilege, and access control management framework for the execution of a wide variety of resource protection policies and that is amenable to implementation within a wide variety of existing and emerging computing environments;

(2) carry out research associated with improving the security of information systems and networks;

(3) carry out research associated with improving the testing, measurement, usability, and assurance of information systems and networks;

(4) carry out research associated with improving security of industrial control systems;

(5) carry out research associated with improving the security and integrity of the information technology supply chain; and

(6) carry out any additional research the Institute determines appropriate.

(f) Definitions

As used in this section—

(1) the term “agency” has the same meaning as provided in section 3502(1) of title 44;

(2) the term “information security” has the same meaning as provided in section 3552(b)(2)¹ of such title;

(3) the term “information system” has the same meaning as provided in section 3502(8) of such title;

(4) the term “information technology” has the same meaning as provided in section 11101 of title 40; and

(5) the term “national security system” has the same meaning as provided in section 3552(b)(5)² of such title.³

(Mar. 3, 1901, ch. 872, §20, as added Pub. L. 100-235, §3(2), Jan. 8, 1988, 101 Stat. 1724; amended Pub. L. 100-418, title V, §5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 104-106, div. E, title LVI, §5607(a), Feb. 10, 1996, 110 Stat. 701; Pub. L. 105-85, div. A, title X, §1073(h)(1), Nov. 18, 1997, 111 Stat. 1906; Pub. L. 107-296, title X, §1003, Nov.

¹ So in original. Probably should be “3552(b)(3)”.

² So in original. Probably should be “3552(b)(6)”.

³ So in original. “Such title” probably means title 44.

25, 2002, 116 Stat. 2269; Pub. L. 107-305, §§8(b), 9, 10, Nov. 27, 2002, 116 Stat. 2378, 2379; Pub. L. 107-347, title III, §303, Dec. 17, 2002, 116 Stat. 2957; Pub. L. 108-271, §8(b), July 7, 2004, 118 Stat. 814; Pub. L. 113-274, title II, §204, Dec. 18, 2014, 128 Stat. 2980; Pub. L. 113-283, §2(e)(4), Dec. 18, 2014, 128 Stat. 3087; Pub. L. 114-329, title I, §104(b)(3), Jan. 6, 2017, 130 Stat. 2976; Pub. L. 116-283, div. H, title XCIV, §9402(a), Jan. 1, 2021, 134 Stat. 4810; Pub. L. 117-167, div. B, title II, §§10227, 10246(a)(2), (g), Aug. 9, 2022, 136 Stat. 1481, 1491, 1494.)

Editorial Notes

CODIFICATION

November 25, 2002, referred to in subsec. (c)(4), was in the original “the date of the enactment of this Act”, which was translated as meaning the date of enactment of Pub. L. 107-296, which enacted the text of this section, to reflect the probable intent of Congress.

PRIOR PROVISIONS

A prior section 20 of act Mar. 3, 1901, ch. 872, was re-numbered section 32 and is classified to section 278q of this title.

AMENDMENTS

2022—Subsec. (a)(2). Pub. L. 117-167, §10246(g), substituted “section 3552(b)(6) of title 44” for “section 3552(b)(5) of title 44”.

Subsec. (b)(4). Pub. L. 117-167, §10227, added par. (4).

Subsec. (c)(3). Pub. L. 117-167, §10246(a)(2)(A), amended par. (3) generally. Prior to amendment, par. (3) required Institute to submit standards and minimum information security requirements to Director of Office of Management and Budget for promulgation under section 11331 of title 40.

Subsec. (d)(1). Pub. L. 117-167, §10246(a)(2)(B)(i), substituted “Secretary of Commerce” for “Director of the Office of Management and Budget”.

Subsec. (d)(8). Pub. L. 117-167, §10246(a)(2)(B)(ii), which directed the substitution of “Secretary of Commerce with such standards submitted to the Secretary” for “Director of Management and Budget with such standards submitted to the Director”, was executed by making the substitution for “Director of the Office of Management and Budget with such standards submitted to the Director” to reflect the probable intent of Congress.

2021—Subsec. (a)(5). Pub. L. 116-283 added par. (5).

2017—Subsec. (d)(3). Pub. L. 114-329 amended par. (3) generally. Prior to amendment, par. (3) read as follows: “conduct research, as needed, to determine the nature and extent of information security vulnerabilities and techniques for providing cost-effective information security”.

2014—Subsec. (a)(2). Pub. L. 113-283, §2(e)(4)(A), substituted “section 3552(b)(5)” for “section 3532(b)(2)”.

Subsec. (e). Pub. L. 113-274, §204(2), added subsec. (e). Former subsec. (e) redesignated (f).

Subsec. (f). Pub. L. 113-283, §2(e)(4)(B), which directed amendment of subsec. (e) by substituting “section 3552(b)(2)” for “section 3532(1)” in par. (2) and “section 3552(b)(5)” for “section 3532(b)(2)” in par. (5), was executed to pars. (2) and (5), respectively, of subsec. (f), to reflect the probable intent of Congress and the redesignation of subsec. (e) as (f) by Pub. L. 113-274, §204(1). See below.

Pub. L. 113-274, §204(1), redesignated subsec. (e) as (f).

2004—Subsec. (c)(1). Pub. L. 108-271 substituted “Government Accountability Office” for “General Accounting Office”.

2002—Pub. L. 107-296 added text of section and struck out former text, as added by Pub. L. 107-347, which read:

“(a) IN GENERAL.—The Institute shall—

“(1) have the mission of developing standards, guidelines, and associated methods and techniques for information systems;

“(2) develop standards and guidelines, including minimum requirements, for information systems used or operated by an agency or by a contractor of an agency or other organization on behalf of an agency, other than national security systems (as defined in section 3542(b)(2) of title 44); and

“(3) develop standards and guidelines, including minimum requirements, for providing adequate information security for all agency operations and assets, but such standards and guidelines shall not apply to national security systems.

“(b) MINIMUM REQUIREMENTS FOR STANDARDS AND GUIDELINES.—The standards and guidelines required by subsection (a) of this section shall include, at a minimum—

“(1)(A) standards to be used by all agencies to categorize all information and information systems collected or maintained by or on behalf of each agency based on the objectives of providing appropriate levels of information security according to a range of risk levels;

“(B) guidelines recommending the types of information and information systems to be included in each such category; and

“(C) minimum information security requirements for information and information systems in each such category;

“(2) a definition of and guidelines concerning detection and handling of information security incidents; and

“(3) guidelines developed in conjunction with the Department of Defense, including the National Security Agency, for identifying an information system as a national security system consistent with applicable requirements for national security systems, issued in accordance with law and as directed by the President.

“(c) DEVELOPMENT OF STANDARDS AND GUIDELINES.—In developing standards and guidelines required by subsections (a) and (b) of this section, the Institute shall—

“(1) consult with other agencies and offices and the private sector (including the Director of the Office of Management and Budget, the Departments of Defense and Energy, the National Security Agency, the General Accounting Office, and the Secretary of Homeland Security) to assure—

“(A) use of appropriate information security policies, procedures, and techniques, in order to improve information security and avoid unnecessary and costly duplication of effort; and

“(B) that such standards and guidelines are complementary with standards and guidelines employed for the protection of national security systems and information contained in such systems;

“(2) provide the public with an opportunity to comment on proposed standards and guidelines;

“(3) submit to the Secretary of Commerce for promulgation under section 11331 of title 40—

“(A) standards, as required under subsection (b)(1)(A) of this section, no later than 12 months after December 17, 2002; and

“(B) minimum information security requirements for each category, as required under subsection (b)(1)(C) of this section, no later than 36 months after December 17, 2002;

“(4) issue guidelines as required under subsection (b)(1)(B) of this section, no later than 18 months after December 17, 2002;

“(5) to the maximum extent practicable, ensure that such standards and guidelines do not require the use or procurement of specific products, including any specific hardware or software;

“(6) to the maximum extent practicable, ensure that such standards and guidelines provide for sufficient flexibility to permit alternative solutions to provide equivalent levels of protection for identified information security risks; and

“(7) to the maximum extent practicable, use flexible, performance-based standards and guidelines that

permit the use of off-the-shelf commercially developed information security products.

“(d) INFORMATION SECURITY FUNCTIONS.—The Institute shall—

“(1) submit standards developed pursuant to subsection (a) of this section, along with recommendations as to the extent to which these should be made compulsory and binding, to the Secretary of Commerce for promulgation under section 11331 of title 40;

“(2) provide technical assistance to agencies, upon request, regarding—

“(A) compliance with the standards and guidelines developed under subsection (a) of this section;

“(B) detecting and handling information security incidents; and

“(C) information security policies, procedures, and practices;

“(3) conduct research, as needed, to determine the nature and extent of information security vulnerabilities and techniques for providing cost-effective information security;

“(4) develop and periodically revise performance indicators and measures for agency information security policies and practices;

“(5) evaluate private sector information security policies and practices and commercially available information technologies to assess potential application by agencies to strengthen information security;

“(6) assist the private sector, upon request, in using and applying the results of activities under this section;

“(7) evaluate security policies and practices developed for national security systems to assess potential application by agencies to strengthen information security;

“(8) periodically assess the effectiveness of standards and guidelines developed under this section and undertake revisions as appropriate;

“(9) solicit and consider the recommendations of the Information Security and Privacy Advisory Board, established by section 278g-4 of this title, regarding standards and guidelines developed under subsection (a) of this section and submit such recommendations to the Secretary of Commerce with such standards submitted to the Secretary; and

“(10) prepare an annual public report on activities undertaken in the previous year, and planned for the coming year, to carry out responsibilities under this section.

“(e) DEFINITIONS.—As used in this section—

“(1) the term ‘agency’ has the same meaning as provided in section 3502(1) of title 44;

“(2) the term ‘information security’ has the same meaning as provided in section 3542(b)(1) of such title;

“(3) the term ‘information system’ has the same meaning as provided in section 3502(8) of such title;

“(4) the term ‘information technology’ has the same meaning as provided in section 11101 of title 40; and

“(5) the term ‘national security system’ has the same meaning as provided in section 3542(b)(2) of title 44.

“(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce \$20,000,000 for each of fiscal years 2003, 2004, 2005, 2006, and 2007 to enable the National Institute of Standards and Technology to carry out the provisions of this section.”

Pub. L. 107-347 added text of section and struck out former text which read as follows:

“(a) The Institute shall—

“(1) have the mission of developing standards, guidelines, and associated methods and techniques for computer systems;

“(2) except as described in paragraph (3) of this subsection (relating to security standards), develop uniform standards and guidelines for Federal computer systems, except those systems excluded by section 2315 of title 10 or section 3502(9) of title 44;

“(3) have responsibility within the Federal Government for developing technical, management, phys-

ical, and administrative standards and guidelines for the cost-effective security and privacy of sensitive information in Federal computer systems except—

“(A) those systems excluded by section 2315 of title 10 or section 3502(9) of title 44; and

“(B) those systems which are protected at all times by procedures established for information which has been specifically authorized under criteria established by an Executive order or an Act of Congress to be kept secret in the interest of national defense or foreign policy,

the primary purpose of which standards and guidelines shall be to control loss and unauthorized modification or disclosure of sensitive information in such systems and to prevent computer-related fraud and misuse;

“(4) submit standards and guidelines developed pursuant to paragraphs (2) and (3) of this subsection, along with recommendations as to the extent to which these should be made compulsory and binding, to the Secretary of Commerce for promulgation under section 1441 of title 40;

“(5) develop guidelines for use by operators of Federal computer systems that contain sensitive information in training their employees in security awareness and accepted security practice, as required by section 5 of the Computer Security Act of 1987; and

“(6) develop validation procedures for, and evaluate the effectiveness of, standards and guidelines developed pursuant to paragraphs (1), (2), and (3) of this subsection through research and liaison with other government and private agencies.

“(b) In fulfilling subsection (a) of this section, the Institute is authorized—

“(1) to assist the private sector, upon request, in using and applying the results of the programs and activities under this section;

“(2) as requested, to provide to operators of Federal computer systems technical assistance in implementing the standards and guidelines promulgated pursuant to section 1441 of title 40;

“(3) to assist, as appropriate, the Office of Personnel Management in developing regulations pertaining to training, as required by section 5 of the Computer Security Act of 1987;

“(4) to perform research and to conduct studies, as needed, to determine the nature and extent of the vulnerabilities of, and to devise techniques for the cost-effective security and privacy of sensitive information in Federal computer systems; and

“(5) to coordinate closely with other agencies and offices (including, but not limited to, the Departments of Defense and Energy, the National Security Agency, the General Accounting Office, the Office of Technology Assessment, and the Office of Management and Budget)—

“(A) to assure maximum use of all existing and planned programs, materials, studies, and reports relating to computer systems security and privacy, in order to avoid unnecessary and costly duplication of effort; and

“(B) to assure, to the maximum extent feasible, that standards developed pursuant to subsection (a)(3) and (5) of this section are consistent and compatible with standards and procedures developed for the protection of information in Federal computer systems which is authorized under criteria established by Executive order or an Act of Congress to be kept secret in the interest of national defense or foreign policy.

“(c) For the purposes of—

“(1) developing standards and guidelines for the protection of sensitive information in Federal computer systems under subsections (a)(1) and (a)(3) of this section, and

“(2) performing research and conducting studies under subsection (b)(5) of this section, the Institute shall draw upon computer system technical security guidelines developed by the National Security Agency to the extent that the Institute determines that such guidelines are consistent with the re-

quirements for protecting sensitive information in Federal computer systems.

“(d) As used in this section—

“(1) the term ‘computer system’—

“(A) means any equipment or interconnected system or subsystems of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception, of data or information; and

“(B) includes—

“(i) computers and computer networks;

“(ii) ancillary equipment;

“(iii) software, firmware, and similar procedures;

“(iv) services, including support services; and

“(v) related resources;

“(2) the term ‘Federal computer system’ means a computer system operated by a Federal agency or by a contractor of a Federal agency or other organization that processes information (using a computer system) on behalf of the Federal Government to accomplish a Federal function;

“(3) the term ‘operator of a Federal computer system’ means a Federal agency, contractor of a Federal agency, or other organization that processes information using a computer system on behalf of the Federal Government to accomplish a Federal function;

“(4) the term ‘sensitive information’ means any information, the loss, misuse, or unauthorized access to or modification of which could adversely affect the national interest or the conduct of Federal programs, or the privacy to which individuals are entitled under section 552a of title 5 (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive order or an Act of Congress to be kept secret in the interest of national defense or foreign policy; and

“(5) the term ‘Federal agency’ has the meaning given such term by section 472(b) of title 40.

“(e) INTRAMURAL SECURITY RESEARCH.—As part of the research activities conducted in accordance with subsection (b)(4) of this section, the Institute shall—

“(1) conduct a research program to address emerging technologies associated with assembling a networked computer system from components while ensuring it maintains desired security properties;

“(2) carry out research associated with improving the security of real-time computing and communications systems for use in process control; and

“(3) carry out multidisciplinary, long-term, high-risk research on ways to improve the security of computer systems.

“(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary \$1,060,000 for fiscal year 2003 and \$1,090,000 for fiscal year 2004 to enable the Computer System Security and Privacy Advisory Board, established by section 278g-4 of this title, to identify emerging issues, including research needs, related to computer security, privacy, and cryptography and, as appropriate, to convene public meetings on those subjects, receive presentations, and publish reports, digests, and summaries for public distribution on those subjects.”

Subsec. (d)(1)(B)(i). Pub. L. 107-305, §8(b), substituted “computers and computer networks” for “computers”. Subsecs. (e), (f). Pub. L. 107-305, §§9, 10, added subsecs. (e) and (f).

1997—Subsecs. (a)(4), (b)(2). Pub. L. 105-85 made technical amendment to reference in original act which appears in text as reference to section 1441 of title 40.

1996—Subsec. (a)(2), (3)(A). Pub. L. 104-106, §5607(a)(1)(A), substituted “section 3502(9) of title 44” for “section 3502(2) of title 44”.

Subsec. (a)(4). Pub. L. 104-106, §5607(a)(1)(B), substituted “section 1441 of title 40” for “section 759(d) of title 40”.

Subsec. (b)(2). Pub. L. 104-106, §5607(a)(2)(A), (C), redesignated par. (3) as (2) and struck out former par. (2) which read as follows: “to make recommendations, as

appropriate, to the Administrator of General Services on policies and regulations proposed pursuant to section 1441 of title 40.”

Subsec. (b)(3). Pub. L. 104-106, §5607(a)(2)(C), redesignated par. (4) as (3). Former par. (3) redesignated (2).

Pub. L. 104-106, §5607(a)(2)(B), substituted “section 1441 of title 40” for “section 759(d) of title 40”.

Subsec. (b)(4) to (6). Pub. L. 104-106, §5607(a)(2)(C), redesignated pars. (4) to (6) as (3) to (5), respectively.

Subsec. (d)(1)(B)(v). Pub. L. 104-106, §5607(a)(3)(A), struck out “as defined by regulations issued by the Administrator for General Services pursuant to section 759 of title 40” after “related resources”.

Subsec. (d)(2). Pub. L. 104-106, §5607(a)(3)(B), substituted “system” for “system—”, struck out “(A)” before “means”, substituted “function,” for “function; and”, and struck out subpar. (B) which read as follows: “includes automatic data processing equipment as that term is defined in section 759(a)(2) of title 40;”.

1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards” in introductory provisions of subsecs. (a) and (b) and wherever appearing in closing provisions of subsec. (c).

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2002 AMENDMENTS

Amendment by Pub. L. 107-347 effective Dec. 17, 2002, see section 402(b) of Pub. L. 107-347, set out as a note under section 3504 of Title 44, Public Printing and Documents.

Amendment by Pub. L. 107-296 effective 60 days after Nov. 25, 2002, see section 4 of Pub. L. 107-296, set out as an Effective Date note under section 101 of Title 6, Domestic Security.

EFFECTIVE DATE OF 1996 AMENDMENT

Amendment by Pub. L. 104-106 effective 180 days after Feb. 10, 1996, see section 5701 of Pub. L. 104-106, Feb. 10, 1996, 110 Stat. 702.

PUBLICATION OF STANDARDS AND GUIDELINES ON CYBERSECURITY AWARENESS

Pub. L. 116-283, div. H, title XCIV, §9402(b), Jan. 1, 2021, 134 Stat. 4810, provided that: “Not later than three years after the date of the enactment of this Act [Jan. 1, 2021] and pursuant to section 20 of the National Institute of Standards and Technology Act (15 U.S.C. 278g-3), the Director of the National Institute of Standards and Technology shall publish standards and guidelines for improving cybersecurity awareness of employees and contractors of Federal agencies.”

§ 278g-3a. Definitions

In this Act:

(1) Agency

The term “agency” has the meaning given that term in section 3502 of title 44.

(2) Director of OMB

The term “Director of OMB” means the Director of the Office of Management and Budget.

(3) Director of the Institute

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

(4) Information system

The term “information system” has the meaning given that term in section 3502 of title 44.

(5) National security system

The term “national security system” has the meaning given that term in section 3552(b)(6) of title 44.

(6) Operational technology

The term “operational technology” means hardware and software that detects or causes a change through the direct monitoring or control of physical devices, processes, and events in the enterprise.

(7) Secretary

The term “Secretary” means the Secretary of Homeland Security.

(8) Security vulnerability

The term “security vulnerability” has the meaning given that term in section 650 of title 6.

(Pub. L. 116-207, § 3, Dec. 4, 2020, 134 Stat. 1001; Pub. L. 117-263, div. G, title LXXI, § 7143(d)(8), Dec. 23, 2022, 136 Stat. 3664.)

Editorial Notes**REFERENCES IN TEXT**

This Act, referred to in text, is Pub. L. 116-207, Dec. 4, 2020, 134 Stat. 1001, known as the Internet of Things Cybersecurity Improvement Act of 2020 and also as the IoT Cybersecurity Improvement Act of 2020, which enacted this section and sections 278g-3b to 278g-3e of this title and provisions set out as a note under this section. For complete classification of this Act to the Code, see Short Title of 2020 Amendment note set out under section 271 of this title and Tables.

CODIFICATION

Section was enacted as part of the Internet of Things Cybersecurity Improvement Act of 2020, also known as the IoT Cybersecurity Improvement Act of 2020, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

AMENDMENTS

2022—Par. (8). Pub. L. 117-263 substituted “section 650 of title 6” for “section 1501(17) of title 6”.

Statutory Notes and Related Subsidiaries**SENSE OF CONGRESS**

Pub. L. 116-207, § 2, Dec. 4, 2020, 134 Stat. 1001, provided that: “It is the sense of Congress that—

“(1) ensuring the highest level of cybersecurity at agencies in the executive branch is the responsibility of the President, followed by the Director of the Office of Management and Budget, the Secretary of Homeland Security, and the head of each such agency;

“(2) this responsibility is to be carried out by working collaboratively within and among agencies in the executive branch, industry, and academia;

“(3) the strength of the cybersecurity of the Federal Government and the positive benefits of digital technology transformation depend on proactively addressing cybersecurity throughout the acquisition and operation of Internet of Things devices by the Federal Government; and

“(4) consistent with the second draft National Institute for Standards and Technology Interagency or Internal Report 8259 titled ‘Recommendations for IoT Device Manufacturers: Foundational Activities and Core Device Cybersecurity Capability Baseline’, published in January 2020, Internet of Things devices are devices that—

“(A) have at least one transducer (sensor or actuator) for interacting directly with the physical world, have at least one network interface, and are not conventional Information Technology devices, such as smartphones and laptops, for which the identification and implementation of cybersecurity features is already well understood; and

“(B) can function on their own and are not only able to function when acting as a component of another device, such as a processor.”

§ 278g-3b. Security standards and guidelines for agencies on use and management of Internet of Things devices**(a) National Institute of Standards and Technology development of standards and guidelines for use of Internet of Things devices by agencies****(1) In general**

Not later than 90 days after December 4, 2020, the Director of the Institute shall develop and publish under section 278g-3 of this title standards and guidelines for the Federal Government on the appropriate use and management by agencies of Internet of Things devices owned or controlled by an agency and connected to information systems owned or controlled by an agency, including minimum information security requirements for managing cybersecurity risks associated with such devices.

(2) Consistency with ongoing efforts

The Director of the Institute shall ensure that the standards and guidelines developed under paragraph (1) are consistent with the efforts of the National Institute of Standards and Technology in effect on December 4, 2020—

(A) regarding—

(i) examples of possible security vulnerabilities of Internet of Things devices; and

(ii) considerations for managing the security vulnerabilities of Internet of Things devices; and

(B) with respect to the following considerations for Internet of Things devices:

(i) Secure Development.

(ii) Identity management.

(iii) Patching.

(iv) Configuration management.

(3) Considering relevant standards

In developing the standards and guidelines under paragraph (1), the Director of the Institute shall consider relevant standards, guidelines, and best practices developed by the private sector, agencies, and public-private partnerships.

(b) Review of agency information security policies and principles**(1) Requirement**

Not later than 180 days after the date on which the Director of the Institute completes the development of the standards and guidelines required under subsection (a), the Director of OMB shall review agency information security policies and principles on the basis of the standards and guidelines published under subsection (a) pertaining to Internet of Things devices owned or controlled by agencies (excluding agency information security policies and principles pertaining to Internet of Things devices owned or controlled by agencies that are or comprise a national security system) for consistency with the standards and guidelines submitted under subsection (a) and

issue such policies and principles as may be necessary to ensure those policies and principles are consistent with such standards and guidelines.

(2) Review

In reviewing agency information security policies and principles under paragraph (1) and issuing policies and principles under such paragraph, as may be necessary, the Director of OMB shall—

(A) consult with the Director of the Cybersecurity and Infrastructure Security Agency of the Department of Homeland Security; and

(B) ensure such policies and principles are consistent with the information security requirements under subchapter II of chapter 35 of title 44.

(3) National security systems

Any policy or principle issued by the Director of OMB under paragraph (1) shall not apply to national security systems.

(c) Quinquennial review and revision

(1) Review and revision of NIST standards and guidelines

Not later than 5 years after the date on which the Director of the Institute publishes the standards and guidelines under subsection (a), and not less frequently than once every 5 years thereafter, the Director of the Institute, shall—

(A) review such standards and guidelines; and

(B) revise such standards and guidelines as appropriate.

(2) Updated OMB policies and principles for agencies

Not later than 180 days after the Director of the Institute makes a revision pursuant to paragraph (1), the Director of OMB, in consultation with the Director of the Cybersecurity and Infrastructure Security Agency of the Department of Homeland Security, shall update any policy or principle issued under subsection (b)(1) as necessary to ensure those policies and principles are consistent with the review and any revision under paragraph (1) under this subsection and paragraphs (2) and (3) of subsection (b).

(d) Revision of Federal Acquisition Regulation

The Federal Acquisition Regulation shall be revised as necessary to implement any standards and guidelines promulgated in this section.

(Pub. L. 116-207, § 4, Dec. 4, 2020, 134 Stat. 1002.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Internet of Things Cybersecurity Improvement Act of 2020, also known as the IoT Cybersecurity Improvement Act of 2020, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries

DEFINITIONS

For definitions of terms used in this section, see section 278g-3a of this title.

§ 278g-3c. Guidelines on the disclosure process for security vulnerabilities relating to information systems, including Internet of Things devices

(a) In general

Not later than 180 days after December 4, 2020, the Director of the Institute, in consultation with such cybersecurity researchers and private sector industry experts as the Director considers appropriate, and in consultation with the Secretary, shall develop and publish under section 278g-3 of this title guidelines—

(1) for the reporting, coordinating, publishing, and receiving of information about—

(A) a security vulnerability relating to information systems owned or controlled by an agency (including Internet of Things devices owned or controlled by an agency); and

(B) the resolution of such security vulnerability; and

(2) for a contractor providing to an agency an information system (including an Internet of Things device) and any subcontractor thereof at any tier providing such information system to such contractor, on—

(A) receiving information about a potential security vulnerability relating to the information system; and

(B) disseminating information about the resolution of a security vulnerability relating to the information system.

(b) Elements

The guidelines published under subsection (a) shall—

(1) to the maximum extent practicable, be aligned with industry best practices and Standards 29147 and 30111 of the International Standards Organization (or any successor standard) or any other appropriate, relevant, and widely-used standard;

(2) incorporate guidelines on—

(A) receiving information about a potential security vulnerability relating to an information system owned or controlled by an agency (including an Internet of Things device); and

(B) disseminating information about the resolution of a security vulnerability relating to an information system owned or controlled by an agency (including an Internet of Things device); and

(3) be consistent with the policies and procedures produced under section 659(m) of title 6.

(c) Information items

The guidelines published under subsection (a) shall include example content, on the information items that should be reported, coordinated, published, or received pursuant to this section by a contractor, or any subcontractor thereof at any tier, providing an information system (including Internet of Things device) to the Federal Government.

(d) Oversight

The Director of OMB shall oversee the implementation of the guidelines published under subsection (a).

(e) Operational and technical assistance

The Secretary, in consultation with the Director of OMB, shall administer the implementa-

tion of the guidelines published under subsection (a) and provide operational and technical assistance in implementing such guidelines.

(Pub. L. 116-207, §5, Dec. 4, 2020, 134 Stat. 1004.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Internet of Things Cybersecurity Improvement Act of 2020, also known as the IoT Cybersecurity Improvement Act of 2020, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries

DEFINITIONS

For definitions of terms used in this section, see section 278g-3a of this title.

§ 278g-3d. Implementation of coordinated disclosure of security vulnerabilities relating to agency information systems, including Internet of Things devices

(a) Agency guidelines required

Not later than 2 years after December 4, 2020, the Director of OMB, in consultation with the Secretary, shall develop and oversee the implementation of policies, principles, standards, or guidelines as may be necessary to address security vulnerabilities of information systems (including Internet of Things devices).

(b) Operational and technical assistance

Consistent with section 3553(b) of title 44, the Secretary, in consultation with the Director of OMB, shall provide operational and technical assistance to agencies on reporting, coordinating, publishing, and receiving information about security vulnerabilities of information systems (including Internet of Things devices).

(c) Consistency with guidelines from National Institute of Standards and Technology

The Secretary shall ensure that the assistance provided under subsection (b) is consistent with applicable standards and publications developed by the Director of the Institute.

(d) Revision of Federal Acquisition Regulation

The Federal Acquisition Regulation shall be revised as necessary to implement the provisions under this section.

(Pub. L. 116-207, §6, Dec. 4, 2020, 134 Stat. 1005.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Internet of Things Cybersecurity Improvement Act of 2020, also known as the IoT Cybersecurity Improvement Act of 2020, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries

DEFINITIONS

For definitions of terms used in this section, see section 278g-3a of this title.

§ 278g-3e. Contractor compliance with coordinated disclosure of security vulnerabilities relating to agency Internet of Things devices

(a) Prohibition on procurement and use

(1) In general

The head of an agency is prohibited from procuring or obtaining, renewing a contract to procure or obtain, or using an Internet of Things device, if the Chief Information Officer of that agency determines during a review required by section 11319(b)(1)(C) of title 40 of a contract for such device that the use of such device prevents compliance with the standards and guidelines developed under section 278g-3b of this title or the guidelines published under section 278g-3c of this title with respect to such device.

(2) Simplified acquisition threshold

Notwithstanding section 1905 of title 41, the requirements under paragraph (1) shall apply to a contract or subcontract in amounts not greater than the simplified acquisition threshold.

(b) Waiver

(1) Authority

The head of an agency may waive the prohibition under subsection (a)(1) with respect to an Internet of Things device if the Chief Information Officer of that agency determines that—

(A) the waiver is necessary in the interest of national security;

(B) procuring, obtaining, or using such device is necessary for research purposes; or

(C) such device is secured using alternative and effective methods appropriate to the function of such device.

(2) Agency process

The Director of OMB shall establish a standardized process for the Chief Information Officer of each agency to follow in determining whether the waiver under paragraph (1) may be granted.

(c) Reports to Congress

(1) Report

Every 2 years during the 6-year period beginning on December 4, 2020, the Comptroller General of the United States shall submit to the Committee on Oversight and Reform of the House of Representatives, the Committee on Homeland Security of the House of Representatives, and the Committee on Homeland Security and Governmental Affairs of the Senate a report—

(A) on the effectiveness of the process established under subsection (b)(2);

(B) that contains recommended best practices for the procurement of Internet of Things devices; and

(C) that lists—

(i) the number and type of each Internet of Things device for which a waiver under subsection (b)(1) was granted during the 2-year period prior to the submission of the report; and

(ii) the legal authority under which each such waiver was granted, such as whether

the waiver was granted pursuant to subparagraph (A), (B), or (C) of such subsection.

(2) Classification of report

Each report submitted under this subsection shall be submitted in unclassified form, but may include a classified annex that contains the information described under paragraph (1)(C).

(d) Effective date

The prohibition under subsection (a)(1) shall take effect 2 years after December 4, 2020.

(Pub. L. 116-207, § 7, Dec. 4, 2020, 134 Stat. 1005.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Internet of Things Cybersecurity Improvement Act of 2020, also known as the IoT Cybersecurity Improvement Act of 2020, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Oversight and Reform of House of Representatives changed to Committee on Oversight and Accountability of House of Representatives by House Resolution No. 5, One Hundred Eighteenth Congress, Jan. 9, 2023.

DEFINITIONS

For definitions of terms used in this section, see section 278g-3a of this title.

§ 278g-4. Information Security and Privacy Advisory Board

(a) Establishment and composition

There is hereby established a¹ Information Security and Privacy Advisory Board within the Department of Commerce. The Secretary of Commerce shall appoint the chairman of the Board. The Board shall be composed of twelve additional members appointed by the Secretary of Commerce as follows:

(1) four members from outside the Federal Government who are eminent in the information technology industry, at least one of whom is representative of small or medium sized companies in such industries;

(2) four members from outside the Federal Government who are eminent in the fields of information technology, or related disciplines, but who are not employed by or representative of a producer of information technology; and

(3) four members from the Federal Government who have information system management experience, including experience in information security and privacy, at least one of whom shall be from the National Security Agency.

(b) Duties

The duties of the Board shall be—

(1) to identify emerging managerial, technical, administrative, and physical safeguard issues relative to information security and privacy;

(2) to advise the Institute, the Secretary of Homeland Security, and the Director of the Office of Management and Budget on information security and privacy issues pertaining to Federal Government information systems, including through review of proposed standards and guidelines developed under section 278g-3 of this title; and

(3) to report annually its findings to the Secretary of Commerce, the Secretary of Homeland Security, the Director of the Office of Management and Budget, the Director of the National Security Agency, and the appropriate committees of the Congress.

(c) Term of office

The term of office of each member of the Board shall be four years, except that—

(1) of the initial members, three shall be appointed for terms of one year, three shall be appointed for terms of two years, three shall be appointed for terms of three years, and three shall be appointed for terms of four years; and

(2) any member appointed to fill a vacancy in the Board shall serve for the remainder of the term for which his predecessor was appointed.

(d) Quorum

The Board shall not act in the absence of a quorum, which shall consist of seven members.

(e) Allowance for travel expenses

Members of the Board, other than full-time employees of the Federal Government, while attending meetings of such committees or while otherwise performing duties at the request of the Board Chairman while away from their homes or a regular place of business, may be allowed travel expenses in accordance with subchapter I of chapter 57 of title 5.

(f) Meetings

The Board shall hold meetings at such locations and at such time and place as determined by a majority of the Board.

(g) Staff services and utilization of Federal personnel

To provide the staff services necessary to assist the Board in carrying out its functions, the Board may utilize personnel from the Institute or any other agency of the Federal Government with the consent of the head of the agency.

(h) Definitions

As used in this section, the terms “information system” and “information technology” have the meanings given in section 278g-3 of this title.

(Mar. 3, 1901, ch. 872, § 21, as added Pub. L. 100-235, § 3(2), Jan. 8, 1988, 101 Stat. 1727; amended Pub. L. 100-418, title V, § 5115(a)(1), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 107-296, title X, § 1004, Nov. 25, 2002, 116 Stat. 2271; Pub. L. 107-347, title III, § 304, Dec. 17, 2002, 116 Stat. 2959; Pub. L. 113-283, § 2(f)(2), Dec. 18, 2014, 128 Stat. 3087.)

Editorial Notes

AMENDMENTS

2014—Subsec. (b)(2). Pub. L. 113-283, § 2(f)(2)(A), inserted “, the Secretary of Homeland Security,” after “the Institute”.

¹ So in original. Probably should be “an”.

Subsec. (b)(3). Pub. L. 113-283, §2(f)(2)(B), inserted “the Secretary of Homeland Security,” after “the Secretary of Commerce.”

2002—Subsec. (a). Pub. L. 107-296, §1004(1), and Pub. L. 107-347, §304(1), amended subsec. (a) identically, substituting “Information Security and Privacy Advisory Board” for “Computer System Security and Privacy Advisory Board” in introductory provisions.

Subsec. (a)(1). Pub. L. 107-296, §1004(2), and Pub. L. 107-347, §304(2), amended par. (1) identically, substituting “information technology” for “computer or telecommunications”.

Subsec. (a)(2). Pub. L. 107-296, §1004(3), and Pub. L. 107-347, §304(3), amended par. (2) identically, substituting “information technology” for “computer or telecommunications technology” and for “computer or telecommunications equipment”.

Subsec. (a)(3). Pub. L. 107-296, §1004(4), and Pub. L. 107-347, §304(4), amended par. (3) identically, substituting “information system” for “computer systems” and “information security” for “computer systems security”.

Subsec. (b)(1). Pub. L. 107-296, §1004(5), and Pub. L. 107-347, §304(5), amended par. (1) identically, substituting “information security” for “computer systems security”.

Subsec. (b)(2). Pub. L. 107-347, §304(6), added par. (2) and struck out former par. (2) which read as follows: “to advise the Institute and the Secretary of Commerce on security and privacy issues pertaining to Federal computer systems; and”.

Pub. L. 107-296, §1004(6), added par. (2) and struck out former par. (2), as added by Pub. L. 107-347, which read as follows: “to advise the Institute, the Secretary of Commerce, and the Director of the Office of Management and Budget on information security and privacy issues pertaining to Federal Government information systems, including through review of proposed standards and guidelines developed under section 278g-3 of this title; and”.

Subsec. (b)(3). Pub. L. 107-296, §1004(7), and Pub. L. 107-347, §304(7), amended par. (3) identically, inserting “annually” after “report”.

Subsecs. (f), (g). Pub. L. 107-296, §1004(8), (9), and Pub. L. 107-347, §304(8), (9), amended section identically, adding subsec. (f) and redesignating former subsec. (f) as (g). Former subsec. (g) redesignated (h).

Subsec. (h). Pub. L. 107-296, §1004(10), and Pub. L. 107-347, §304(10), amended section identically, adding subsec. (h) and striking out former subsec. (h) which read as follows: “As used in this section, the terms ‘computer system’ and ‘Federal computer system’ have the meanings given in section 278g-3 of this title.”

Pub. L. 107-296, §1004(9), and Pub. L. 107-347, §304(9), amended section identically, redesignating subsec. (g) as (h).

1988—Subsec. (b)(2). Pub. L. 100-418, which directed that this chapter be amended by substituting “Institute” for “National Bureau of Standards”, “Bureau”, or “bureau”, wherever appearing, was executed to par. (2) by substituting “Institute” for “Bureau of Standards”, to reflect the probable intent of Congress.

Subsec. (f). Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards”.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2002 AMENDMENTS

Amendment by Pub. L. 107-347 effective Dec. 17, 2002, see section 402(b) of Pub. L. 107-347, set out as a note under section 3504 of Title 44, Public Printing and Documents.

Amendment by Pub. L. 107-296 effective 60 days after Nov. 25, 2002, see section 4 of Pub. L. 107-296, set out as an Effective Date note under section 101 of Title 6, Domestic Security.

TERMINATION OF ADVISORY BOARDS

Advisory boards in existence on Jan. 5, 1973, to terminate not later than the expiration of the 2-year period

following Jan. 5, 1973, unless, in the case of a council established by the President or an officer of the Federal Government, such council is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a council established by the Congress, its duration is otherwise provided by law. See sections 1001(2) and 1013 of Title 5, Government Organization and Employees.

§ 278g-5. Enterprise integration initiative

(a) Establishment

The Director shall establish an initiative for advancing enterprise integration within the United States. In carrying out this section, the Director shall involve, as appropriate, the various units of the National Institute of Standards and Technology, including the National Institute of Standards and Technology laboratories (including the Building and Fire Research Laboratory), the Hollings Manufacturing Extension Partnership program established under sections 278k and 278l of this title, and the Malcolm Baldrige National Quality Program. This initiative shall build upon ongoing efforts of the National Institute of Standards and Technology and of the private sector, shall involve consortia that include government and industry, and shall address the enterprise integration needs of each United States major manufacturing industry at the earliest possible date.

(b) Assessment

For each major manufacturing industry, the Director may work with industry, trade associations, professional societies, and others as appropriate, to identify enterprise integration standardization and implementation activities underway in the United States and abroad that affect that industry and to assess the current state of enterprise integration within that industry. The Director may assist in the development of roadmaps to permit supply chains within the industry to operate as an integrated electronic enterprise. The roadmaps shall be based on voluntary consensus standards.

(c) Authorized activities

In order to carry out this Act, the Director may work with industry, trade associations, professional societies, and others as appropriate—

(1) to raise awareness in the United States, including awareness by businesses that are majority owned by women, minorities, or both, of enterprise integration activities in the United States and abroad, including by the convening of conferences;

(2) on the development of enterprise integration roadmaps;

(3) to support the development, testing, promulgation, integration, adoption, and upgrading of standards related to enterprise integration including application protocols; and

(4) to provide technical assistance and, if necessary, financial support to small- and medium-sized businesses that set up pilot projects in enterprise integration.

(d) Manufacturing Extension Program

The Director shall ensure that the Manufacturing Extension Program is prepared to advise small- and medium-sized businesses on how to

acquire the expertise, equipment, and training necessary to participate fully in supply chains using enterprise integration.

(Pub. L. 107-277, § 3, Nov. 5, 2002, 116 Stat. 1936; Pub. L. 113-188, title II, § 201(b), Nov. 26, 2014, 128 Stat. 2018; Pub. L. 114-329, title V, § 501(e)(2), Jan. 6, 2017, 130 Stat. 3033.)

Editorial Notes

REFERENCES IN TEXT

This Act, referred to in subsec. (c), is Pub. L. 107-277, Nov. 5, 2002, 116 Stat. 1936, known as the Enterprise Integration Act of 2002, which enacted this section and provisions set out as a note under this section. For complete classification of this Act to the Code, see Tables.

CODIFICATION

Section was enacted as part of the Enterprise Integration Act of 2002, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

AMENDMENTS

2017—Subsec. (a). Pub. L. 114-329 inserted “Hollings” before “Manufacturing Extension Partnership”.

2014—Subsecs. (c) to (e). Pub. L. 113-188 redesignated subsecs. (d) and (e) as (c) and (d), respectively, and struck out former subsec. (c) which required annual reports on the National Institute of Standards and Technology’s activities under subsec. (b).

Statutory Notes and Related Subsidiaries

ENTERPRISE INTEGRATION

Pub. L. 107-277, Nov. 5, 2002, 116 Stat. 1936, provided that:

“SECTION. 1. SHORT TITLE.

“This Act [enacting this section and this note] may be cited as the ‘Enterprise Integration Act of 2002’.

“SEC. 2. FINDINGS.

“The Congress makes the following findings:

“(1) Over 90 percent of United States companies engaged in manufacturing are small- and medium-sized businesses.

“(2) Most of these manufacturers produce goods for assemblage into products of large companies.

“(3) The emergence of the World Wide Web and the promulgation of international standards for product data exchange greatly accelerated the movement toward electronically integrated supply chains during the last half of the 1990’s.

“(4) European and Asian countries are investing heavily in electronic enterprise standards development, and in preparing their smaller manufacturers to do business in the new environment. European efforts are well advanced in the aerospace, automotive, and shipbuilding industries and are beginning in other industries including home building, furniture manufacturing, textiles, and apparel. This investment could give overseas companies a major competitive advantage.

“(5) The National Institute of Standards and Technology, because of the electronic commerce expertise in its laboratories and quality program, its long history of working cooperatively with manufacturers, and the nationwide reach of its manufacturing extension program, is in a unique position to help United States large and smaller manufacturers alike in their responses to this challenge.

“(6) It is, therefore, in the national interest for the National Institute of Standards and Technology to accelerate its efforts in helping industry develop standards and enterprise integration processes that are necessary to increase efficiency and lower costs.

“SEC. 3. ENTERPRISE INTEGRATION INITIATIVE.

[Enacted this section.]

“SEC. 4. DEFINITIONS.

“For purposes of this Act—

“(1) the term ‘automotive’ means land-based engine-powered vehicles including automobiles, trucks, busses, trains, defense vehicles, farm equipment, and motorcycles;

“(2) the term ‘Director’ means the Director of the National Institute of Standards and Technology;

“(3) the term ‘enterprise integration’ means the electronic linkage of manufacturers, assemblers, suppliers, and customers to enable the electronic exchange of product, manufacturing, and other business data among all partners in a product supply chain, and such term includes related application protocols and other related standards;

“(4) the term ‘major manufacturing industry’ includes the aerospace, automotive, electronics, shipbuilding, construction, home building, furniture, textile, and apparel industries and such other industries as the Director designates; and

“(5) the term ‘roadmap’ means an assessment of manufacturing interoperability requirements developed by an industry describing that industry’s goals related to enterprise integration, the knowledge and standards including application protocols necessary to achieve those goals, and the necessary steps, timetable, and assignment of responsibilities for acquiring the knowledge and developing the standards and protocols.

“SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

“There are authorized to be appropriated to the Director to carry out functions under this Act—

“(1) \$2,000,000 for fiscal year 2002;

“(2) \$10,000,000 for fiscal year 2003;

“(3) \$15,000,000 for fiscal year 2004; and

“(4) \$20,000,000 for fiscal year 2005.”

§ 278h. Research program on security of computer systems

(a) Establishment

The Director shall establish a program of assistance to institutions of higher education that enter into partnerships with for-profit entities to support research to improve the security of computer systems. The partnerships may also include government laboratories and nonprofit research institutions. The program shall—

(1) include multidisciplinary, long-term research;

(2) include research directed toward addressing needs identified through the activities of the Computer System Security¹ and Privacy Advisory Board under section 278g-3(f)² of this title; and

(3) promote the development of a robust research community working at the leading edge of knowledge in subject areas relevant to the security of computer systems by providing support for graduate students, post-doctoral researchers, and senior researchers.

(b) Fellowships

(1) Post-doctoral research fellowships

The Director is authorized to establish a program to award post-doctoral research fellowships to individuals who are citizens, nationals, or lawfully admitted permanent resident aliens of the United States and are seek-

¹ So in original. Probably should be “Information Security”.

² See References in Text note below.

ing research positions at institutions, including the Institute, engaged in research activities related to the security of computer systems, including the research areas described in section 7403(a)(1) of this title.

(2) Senior research fellowships

The Director is authorized to establish a program to award senior research fellowships to individuals seeking research positions at institutions, including the Institute, engaged in research activities related to the security of computer systems, including the research areas described in section 7403(a)(1) of this title. Senior research fellowships shall be made available for established researchers at institutions of higher education who seek to change research fields and pursue studies related to the security of computer systems.

(3) Eligibility

(A) In general

To be eligible for an award under this subsection, an individual shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require.

(B) Stipends

Under this subsection, the Director is authorized to provide stipends for post-doctoral research fellowships at the level of the Institute's Post Doctoral Research Fellowship Program and senior research fellowships at levels consistent with support for a faculty member in a sabbatical position.

(c) Awards; applications

(1) In general

The Director is authorized to award grants or cooperative agreements to institutions of higher education to carry out the program established under subsection (a). No funds made available under this section shall be made available directly to any for-profit partners.

(2) Eligibility

To be eligible for an award under this section, an institution of higher education shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of—

(A) the number of graduate students anticipated to participate in the research project and the level of support to be provided to each;

(B) the number of post-doctoral research positions included under the research project and the level of support to be provided to each;

(C) the number of individuals, if any, intending to change research fields and pursue studies related to the security of computer systems to be included under the research project and the level of support to be provided to each; and

(D) how the for-profit entities, nonprofit research institutions, and any other partners will participate in developing and carrying out the research and education agenda of the partnership.

(d) Program operation

(1) Management

The program established under subsection (a) shall be managed by individuals who shall have both expertise in research related to the security of computer systems and knowledge of the vulnerabilities of existing computer systems. The Director shall designate such individuals as program managers.

(2) Managers may be employees

Program managers designated under paragraph (1) may be new or existing employees of the Institute or individuals on assignment at the Institute under the Intergovernmental Personnel Act of 1970 [42 U.S.C. 4701 et seq.], except that individuals on assignment at the Institute under the Intergovernmental Personnel Act of 1970 shall not directly manage such employees.

(3) Manager responsibility

Program managers designated under paragraph (1) shall be responsible for—

(A) establishing and publicizing the broad research goals for the program;

(B) soliciting applications for specific research projects to address the goals developed under subparagraph (A);

(C) selecting research projects for support under the program from among applications submitted to the Institute, following consideration of—

(i) the novelty and scientific and technical merit of the proposed projects;

(ii) the demonstrated capabilities of the individual or individuals submitting the applications to successfully carry out the proposed research;

(iii) the impact the proposed projects will have on increasing the number of computer security researchers;

(iv) the nature of the participation by for-profit entities and the extent to which the proposed projects address the concerns of industry; and

(v) other criteria determined by the Director, based on information specified for inclusion in applications under subsection (c); and

(D) monitoring the progress of research projects supported under the program.

(4) Reports

The Director shall report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science annually on the use and responsibility of individuals on assignment at the Institute under the Intergovernmental Personnel Act of 1970 [42 U.S.C. 4701 et seq.] who are performing duties under subsection (d).

(e) Review of program

(1) Periodic review

The Director shall periodically review the portfolio of research awards monitored by each program manager designated in accordance with subsection (d). In conducting those reviews, the Director shall seek the advice of

the Computer System Security¹ and Privacy Advisory Board, established under section 278g–4 of this title, on the appropriateness of the research goals and on the quality and utility of research projects managed by program managers in accordance with subsection (d).

(2) Comprehensive 5-year review

The Director shall also contract with the National Research Council for a comprehensive review of the program established under subsection (a) during the 5th year of the program. Such review shall include an assessment of the scientific quality of the research conducted, the relevance of the research results obtained to the goals of the program established under subsection (d)(3)(A), and the progress of the program in promoting the development of a substantial academic research community working at the leading edge of knowledge in the field. The Director shall submit to Congress a report on the results of the review under this paragraph no later than 6 years after the initiation of the program.

(f) Definitions

In this section:

(1) Computer system

The term “computer system” has the meaning given that term in section 278g–3(d)(1)² of this title.

(2) Institution of higher education

The term “institution of higher education” has the meaning given that term in section 1001(a) of title 20.

(Mar. 3, 1901, ch. 872, §22, as added Pub. L. 107–305, §8(a)(2), Nov. 27, 2002, 116 Stat. 2375.)

Editorial Notes

REFERENCES IN TEXT

Section 278g–3 of this title, referred to in subsecs. (a)(2) and (f)(1), was amended generally by Pub. L. 107–296, title X, §1003, Nov. 25, 2002, 116 Stat. 2269, and, as so amended, did not contain a subsec. (d) defining “computer system” or a subsec. (f). A later amendment by Pub. L. 113–274, title II, §204(1), Dec. 18, 2014, 128 Stat. 2980, redesignated subsec. (e) of section 278g–3 of this title, relating to definitions, as subsec. (f).

The Intergovernmental Personnel Act of 1970, referred to in subsec. (d)(2), (4), is Pub. L. 91–648, Jan. 5, 1971, 84 Stat. 1909, which enacted sections 3371 to 3376 of Title 5, Government Organization and Employees, and chapter 62 (§4701 et seq.) of Title 42, The Public Health and Welfare, amended section 1304 of Title 5 and section 246 of Title 42, repealed sections 1881 to 1888 of Title 7, Agriculture, and section 869b of Title 20, Education, and enacted provisions set out as notes under section 3371 of Title 5. For complete classification of this Act to the Code, see Short Title note set out under section 4701 of Title 42 and Tables.

PRIOR PROVISIONS

A prior section 22 of act Mar. 3, 1901, ch. 872, was re-numbered section 32 and is classified to section 278q of this title.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Science of House of Representatives changed to Committee on Science and Technology of House of Representatives by House Resolution No. 6,

One Hundred Tenth Congress, Jan. 5, 2007. Committee on Science and Technology of House of Representatives changed to Committee on Science, Space, and Technology of House of Representatives by House Resolution No. 5, One Hundred Twelfth Congress, Jan. 5, 2011.

§ 278h–1. Standards for artificial intelligence

(a) Mission

The Institute shall—

(1) advance collaborative frameworks, standards, guidelines, and associated methods and techniques for artificial intelligence;

(2) support the development of a risk-mitigation framework for deploying artificial intelligence systems;

(3) support the development of technical standards and guidelines that promote trustworthy artificial intelligence systems; and

(4) support the development of technical standards and guidelines by which to test for bias in artificial intelligence training data and applications.

(b) Supporting activities

The Director of the National Institute of Standards and Technology may—

(1) support measurement research and development of best practices and voluntary standards for trustworthy artificial intelligence systems, which may include—

(A) privacy and security, including for datasets used to train or test artificial intelligence systems and software and hardware used in artificial intelligence systems;

(B) advanced computer chips and hardware designed for artificial intelligence systems;

(C) data management and techniques to increase the usability of data, including strategies to systematically clean, label, and standardize data into forms useful for training artificial intelligence systems and the use of common, open licenses;

(D) safety and robustness of artificial intelligence systems, including assurance, verification, validation, security, control, and the ability for artificial intelligence systems to withstand unexpected inputs and adversarial attacks;

(E) auditing mechanisms and benchmarks for accuracy, transparency, verifiability, and safety assurance for artificial intelligence systems;

(F) applications of machine learning and artificial intelligence systems to improve other scientific fields and engineering;

(G) model documentation, including performance metrics and constraints, measures of fairness, training and testing processes, and results;

(H) system documentation, including connections and dependences within and between systems, and complications that may arise from such connections; and

(I) all other areas deemed by the Director to be critical to the development and deployment of trustworthy artificial intelligence;

(2) produce curated, standardized, representative, high-value, secure, aggregate, and privacy protected data sets for artificial intelligence research, development, and use;

(3) support one or more institutes as described in section 9431(b) of this title for the

purpose of advancing measurement science, voluntary consensus standards, and guidelines for trustworthy artificial intelligence systems;

(4) support and strategically engage in the development of voluntary consensus standards, including international standards, through open, transparent, and consensus-based processes; and

(5) enter into and perform such contracts, including cooperative research and development arrangements and grants and cooperative agreements or other transactions, as may be necessary in the conduct of the work of the National Institute of Standards and Technology and on such terms as the Director considers appropriate, in furtherance of the purposes of this division.¹

(c) Risk management framework

Not later than 2 years after January 1, 2021, the Director shall work to develop, and periodically update, in collaboration with other public and private sector organizations, including the National Science Foundation and the Department of Energy, a voluntary risk management framework for trustworthy artificial intelligence systems. The framework shall—

(1) identify and provide standards, guidelines, best practices, methodologies, procedures and processes for—

(A) developing trustworthy artificial intelligence systems;

(B) assessing the trustworthiness of artificial intelligence systems; and

(C) mitigating risks from artificial intelligence systems;

(2) establish common definitions and characterizations for aspects of trustworthiness, including explainability, transparency, safety, privacy, security, robustness, fairness, bias, ethics, validation, verification, interpretability, and other properties related to artificial intelligence systems that are common across all sectors;

(3) provide case studies of framework implementation;

(4) align with international standards, as appropriate;

(5) incorporate voluntary consensus standards and industry best practices; and

(6) not prescribe or otherwise require the use of specific information or communications technology products or services.

(d) Participation in standard setting organizations

(1) Requirement

The Institute shall participate in the development of standards and specifications for artificial intelligence.

(2) Purpose

The purpose of this participation shall be to ensure—

(A) that standards promote artificial intelligence systems that are trustworthy; and

(B) that standards relating to artificial intelligence reflect the state of technology and

are fit-for-purpose and developed in transparent and consensus-based processes that are open to all stakeholders.

(e) Data sharing best practices

Not later than 1 year after January 1, 2021, the Director shall, in collaboration with other public and private sector organizations, develop guidance to facilitate the creation of voluntary data sharing arrangements between industry, federally funded research centers, and Federal agencies for the purpose of advancing artificial intelligence research and technologies, including options for partnership models between government entities, industry, universities, and nonprofits that incentivize each party to share the data they collected.

(f) Best practices for documentation of data sets

Not later than 1 year after January 1, 2021, the Director shall, in collaboration with other public and private sector organizations, develop best practices for datasets used to train artificial intelligence systems, including—

(1) standards for metadata that describe the properties of datasets, including—

(A) the origins of the data;

(B) the intent behind the creation of the data;

(C) authorized uses of the data;

(D) descriptive characteristics of the data, including what populations are included and excluded from the datasets; and

(E) any other properties as determined by the Director; and

(2) standards for privacy and security of datasets with human characteristics.

(g) Testbeds

In coordination with other Federal agencies as appropriate, the private sector, and institutions of higher education (as such term is defined in section 1001 of title 20), the Director may establish testbeds, including in virtual environments, to support the development of robust and trustworthy artificial intelligence and machine learning systems, including testbeds that examine the vulnerabilities and conditions that may lead to failure in, malfunction of, or attacks on such systems.

(h) Authorization of appropriations

There are authorized to be appropriated to the National Institute of Standards and Technology to carry out this section—

(1) \$64,000,000 for fiscal year 2021;

(2) \$70,400,000 for fiscal year 2022;

(3) \$77,440,000 for fiscal year 2023;

(4) \$85,180,000 for fiscal year 2024; and

(5) \$93,700,000 for fiscal year 2025.

(Mar. 3, 1901, ch. 872, §22A, as added Pub. L. 116-283, div. E, title LIII, §5301, Jan. 1, 2021, 134 Stat. 4536; amended Pub. L. 117-167, div. B, title II, §10232(b), Aug. 9, 2022, 136 Stat. 1484.)

Editorial Notes

REFERENCES IN TEXT

This division, referred to in subsec. (b)(5), probably means div. E of Pub. L. 116-283, Jan. 1, 2021, 134 Stat. 4523, which is classified principally to chapter 119 of this title.

¹ See References in Text note below.

AMENDMENTS

2022—Subsecs. (g), (h). Pub. L. 117–167 added subsec. (g) and redesignated former subsec. (g) as (h).

§ 278i. Reports to Congress**(a) Information to Congress on Institute activities**

The Director shall keep the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives fully and currently informed with regard to all of the activities of the Institute.

(b) Justification for changes in policies and fees

The Director shall justify in writing all changes in policies regarding fees for standard reference materials and calibration services occurring after June 30, 1987, including a description of the anticipated impact of any proposed changes on demand for and anticipated revenues from the materials and services. Changes in policy and fees shall not be effective unless and until the Director has submitted the proposed schedule and justification to the Congress and 30 days on which both Houses of Congress are in session have elapsed since such submission, except that the requirement of this sentence shall not apply with respect to adjustments which are based solely on changes in the costs of raw materials or of producing and delivering standard reference materials or calibration services.

(Mar. 3, 1901, ch. 872, §23, as added Pub. L. 100–418, title V, §5114(2), Aug. 23, 1988, 102 Stat. 1432; amended Pub. L. 110–69, title III, §3004, Aug. 9, 2007, 121 Stat. 590; Pub. L. 114–329, title II, §204(a)(1)(B)(i), Jan. 6, 2017, 130 Stat. 2998.)

Editorial Notes

AMENDMENTS

2017—Subsecs. (c), (d). Pub. L. 114–329 struck out subsecs. (c) and (d) which required the Director to submit to Congress a 3-year programmatic planning document for the Institute and annual updates.

2007—Subsecs. (c), (d). Pub. L. 110–69 added subsecs. (c) and (d).

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Science, Space, and Technology of House of Representatives treated as referring to Committee on Science of House of Representatives by section 1(a) of Pub. L. 104–14, set out as a note preceding section 21 of Title 2, The Congress. Committee on Science of House of Representatives changed to Committee on Science and Technology of House of Representatives by House Resolution No. 6, One Hundred Tenth Congress, Jan. 5, 2007. Committee on Science and Technology of House of Representatives changed to Committee on Science, Space, and Technology of House of Representatives by House Resolution No. 5, One Hundred Twelfth Congress, Jan. 5, 2011.

§ 278j. Studies by National Research Council

The Director may periodically contract with the National Research Council for advice and studies to assist the Institute to serve United States industry and science. The subjects of such advice and studies may include—

- (1) the competitive position of the United States in key areas of manufacturing and

emerging technologies and research activities which would enhance that competitiveness;

- (2) potential activities of the Institute, in cooperation with industry and the States, to assist in the transfer and dissemination of new technologies for manufacturing and quality assurance; and

- (3) identification and assessment of likely barriers to widespread use of advanced manufacturing technology by the United States workforce, including training and other initiatives which could lead to a higher percentage of manufacturing jobs of United States companies being located within the borders of our country.

(Mar. 3, 1901, ch. 872, §24, as added Pub. L. 100–418, title V, §5114(2), Aug. 23, 1988, 102 Stat. 1432.)

§ 278k. Hollings Manufacturing Extension Partnership**(a) Definitions**

In this section:

(1) Appropriate committees of congress

The term “appropriate committees of Congress” means—

- (A) the Committee on Commerce, Science, and Transportation of the Senate; and

- (B) the Committee on Science, Space, and Technology of the House of Representatives.

(2) Area career and technical education school

The term “area career and technical education school” has the meaning given the term in section 2302 of title 20.

(3) Center

The term “Center” means a manufacturing extension center that—

- (A) is created under subsection (b); and

- (B) is affiliated with an eligible entity that applies for and is awarded financial support under subsection (e).

(4) Community college

The term “community college” means an institution of higher education (as defined under section 1001(a) of title 20) at which the highest degree that is predominately awarded to students is an associate’s degree.

(5) Eligible entity

The term “eligible entity” means a United States-based nonprofit institution, an institution of higher education, or a State, United States territory, local, or tribal government or a consortium thereof.

(6) Historically Black college and university

The term “historically Black college and university” has the meaning given the term “part B institution” in section 1061 of title 20.

(7)¹ Institution of higher education

The term “institution of higher education” has the meaning given such term in section 1001 of title 20.

(7)¹ Hollings Manufacturing Extension Partnership or Program

The term “Hollings Manufacturing Extension Partnership” or “Program” means the program established under subsection (b).

¹ So in original. Two pars. (7) have been enacted.

(8) MEP Advisory Board

The term “MEP Advisory Board” means the Manufacturing Extension Partnership Advisory Board established under subsection (n).²

(9) Minority-serving institution

The term “minority-serving institution” means a Hispanic-serving institution as defined in section 1101a(a) of title 20; an Alaska Native-serving institution or Native Hawaiian-serving institution as defined in section 1059d(b) of title 20; or a Predominantly Black institution, Asian American and Native American Pacific Islander-serving institution, or Native American-serving nontribal institution as defined in section 1067q(c) of title 20.

(10) Secondary school

The term “secondary school” has the meaning given such term in section 7801 of title 20.

(11) Tribal College or University

The term “Tribal College or University” has the meaning given the term “Tribal College or University” in section 1059c of title 20.

(b) Establishment and purpose

The Secretary, acting through the Director and, if appropriate, through other Federal officials, shall establish a program to provide assistance for the creation and support of manufacturing extension centers for the transfer of manufacturing technology and best business practices.

(c) Objective

The objective of the Program shall be to enhance competitiveness, productivity, and technological performance in United States manufacturing through—

(1) the transfer of manufacturing technology and techniques developed at the Institute to Centers and, through them, to manufacturing companies throughout the United States;

(2) the participation of individuals from industry, institutions of higher education, State governments, other Federal agencies, and, when appropriate, the Institute in cooperative technology transfer activities;

(3) efforts to make new manufacturing technology and processes usable by United States-based small and medium-sized companies;

(4) the active dissemination of scientific, engineering, technical, and management information about manufacturing to United States-based industrial firms, including small and medium-sized manufacturing companies;

(5) the utilization, when appropriate, of the expertise and capability that exists in Federal agencies, other than the Institute, and federally-sponsored laboratories;

(6) the provision to secondary schools, community colleges, and area career and technical education schools, including those in underserved and rural communities, of information about the job skills needed in manufacturing companies, including small and medium-sized manufacturing businesses in the regions they serve;

(7) the promotion and expansion of certification systems offered through industry, asso-

ciations, local secondary schools and local colleges, including historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, community colleges, and secondary schools and colleges in underserved and rural communities, when appropriate, including efforts such as facilitating training, supporting new or existing apprenticeships or other applied learning opportunities, and providing access to information and experts, to address workforce needs and skills gaps in order to assist small- and medium-sized manufacturing businesses; and

(8) the growth in employment and wages at United States-based small and medium-sized companies.

(d) Activities

The activities of a Center shall include—

(1) the establishment of automated manufacturing systems and other advanced production technologies, at United States-based industrial facilities, including small and medium manufacturing companies based on Institute-supported research, for the purpose of demonstrations and technology transfer;

(2) the active transfer and dissemination of research findings and Center expertise to a wide range of United States-based companies and enterprises, particularly small and medium-sized manufacturers; and

(3) the facilitation of collaborations and partnerships between United States-based small and medium-sized manufacturing companies and local high schools, community colleges, and area career and technical education schools, including those in underserved and rural communities, to help those entities better understand the specific needs of manufacturers and to help manufacturers better understand the skill sets that students learn in the programs offered by such colleges and schools.

(e) Financial assistance**(1) Authorization**

Except as provided in paragraph (2), the Secretary may provide financial assistance for the creation and support of a Center through a cooperative agreement with an eligible entity.

(2) Cost sharing

The Secretary may not provide more than 50 percent of the capital and annual operating and maintenance funds required to establish and support a Center.

(3) Rule of construction

For purposes of paragraph (2), any amount received by an eligible entity for a Center under a provision of law other than paragraph (1) shall not be considered an amount provided under paragraph (1).

(4) Regulations

The Secretary may revise or promulgate such regulations as necessary to carry out this subsection.

(f) Applications**(1) In general**

An eligible entity shall submit an application to the Secretary at such time, in such

² So in original. Probably should refer to subsec. (m).

manner, and containing such information as the Secretary may require.

(2) Program description

The Secretary shall establish and update, as necessary—

- (A) a description of the Program;
- (B) the application procedures;
- (C) performance metrics;
- (D) criteria for determining qualified applicants; and³
- (E) criteria for choosing recipients of financial assistance from among the qualified applicants.³
- (F) procedures for determining allowable cost share contributions; and
- (G) such other program policy objectives and operational procedures as the Secretary considers necessary.

(3) Cost sharing

(A) In general

To be considered for financial assistance under this section, an applicant shall provide adequate assurances that the applicant and if applicable, the applicant's partnering organizations, will obtain funding for not less than 50 percent of the capital and annual operating and maintenance funds required to establish and support the Center from sources other than the financial assistance provided under subsection (e).

(B) Agreements with other entities

In meeting the cost-sharing requirement under subparagraph (A), an eligible entity may enter into an agreement with 1 or more other entities, such as a private industry, institutions of higher education, or a State, United States territory, local, or tribal government for the contribution by that other entity of funding if the Secretary determines the agreement—

- (i) is programmatically reasonable;
- (ii) will help accomplish programmatic objectives; and
- (iii) is allocable under Program procedures under subsection (f)(2).

(4) Legal rights

Each applicant shall include in the application a proposal for the allocation of the legal rights associated with any intellectual property which may result from the activities of the Center.

(5) Merit review of applications

(A) In general

The Secretary shall subject each application to merit review.

(B) Considerations

In making a decision whether to approve an application and provide financial assistance under subsection (e), the Secretary shall consider, at a minimum—

- (i) the merits of the application, particularly those portions of the application regarding technology transfer, training and education, and adaptation of manufac-

turing technologies to the needs of particular industrial sectors in the United States;

- (ii) the quality of service to be provided;
- (iii) the geographical diversity and extent of the service area; and
- (iv) the type and percentage of funding and in-kind commitment from other sources under paragraph (3).

(g) Evaluations

(1) Third and eighth year evaluations by panel

(A) In general

The Secretary shall ensure that each Center is evaluated during its third and eighth years of operation by an evaluation panel appointed by the Secretary.

(B) Composition

The Secretary shall ensure that each evaluation panel appointed under subparagraph (A) is composed of—

- (i) private experts, none of whom are connected with the Center evaluated by the panel; and
- (ii) Federal officials.

(C) Chairperson

For each evaluation panel appointed under subparagraph (B), the Secretary shall appoint a chairperson who is an official of the Institute.

(2) Fifth year evaluations by Secretary

In the fifth year of operation of a Center, the Secretary shall conduct a review of the Center.

(3) Performance measurement

In evaluating a Center an evaluation panel or the Secretary, as applicable, shall measure the performance of the Center against—

- (A) the objective specified in subsection (c);
- (B) the performance metrics under subsection (f)(2)(C); and
- (C) such other criterion as considered appropriate by the Secretary.

(4) Positive evaluations

If an evaluation of a Center is positive, the Secretary may continue to provide financial assistance for the Center—

- (A) in the case of an evaluation occurring in the third year of a Center, through the fifth year of the Center;
- (B) in the case of an evaluation occurring in the fifth year of a Center, through the eighth year of the Center; and
- (C) in the case of an evaluation occurring in the eighth year of a Center, through the tenth year of the Center.

(5) Other than positive evaluations

(A) Probation

If an evaluation of a Center is other than positive, the Secretary shall put the Center on probation during the period beginning on the date that the Center receives notice under subparagraph (B)(i) and ending on the date that the reevaluation is complete under subparagraph (B)(iii).

³ So in original.

(B) Notice and reevaluation

If a Center receives an evaluation that is other than positive, the evaluation panel or Secretary, as applicable, shall—

- (i) notify the Center of the reason, including any deficiencies in the performance of the Center identified during the evaluation;
- (ii) assist the Center in remedying the deficiencies by providing the Center, not less frequently than once every 3 months, an analysis of the Center, if considered appropriate by the panel or Secretary, as applicable; and
- (iii) reevaluate the Center not later than 1 year after the date of the notice under clause (i).

(C) Continued support during period of probation**(i) In general**

The Secretary may continue to provide financial assistance under subsection (e) for a Center during the probation period.

(ii) Post probation

After the period of probation, the Secretary shall not provide any financial assistance unless the Center has received a positive evaluation under subparagraph (B)(iii).

(6) Failure to remedy**(A) In general**

If a Center fails to remedy a deficiency or to show significant improvement in performance before the end of the probation period under paragraph (5), the Secretary shall conduct a competition to select an operator for the Center under subsection (h).

(B) Treatment of Centers subject to new competition

Upon the selection of an operator for a Center under subsection (h), the Center shall be considered a new Center and the calculation of the years of operation of that Center for purposes of paragraphs (1) through (5) of this subsection and subsection (h)(1) shall start anew.

(h) Reapplication competition for financial assistance after 10 years**(1) In general**

If an eligible entity has operated a Center under this section for a period of 10 consecutive years, the Secretary shall conduct a competition to select an eligible entity to operate the Center in accordance with the process plan under subsection (i).

(2) Incumbent eligible entities

An eligible entity that has received financial assistance under this section for a period of 10 consecutive years and that the Secretary determines is in good standing shall be eligible to compete in the competition under paragraph (1).

(3) Treatment of Centers subject to reapplication competition

Upon the selection of an operator for a Center under paragraph (1), the Center shall be

considered a new Center and the calculation of the years of operation of that Center for purposes of paragraphs (1) through (5) of subsection (g) shall start anew.

(i) Process plan

Not later than 180 days after January 6, 2017, the Secretary shall implement and submit to Congress a plan for how the Institute will conduct an evaluation, competition, and reapplication competition under this section.

(j) Operational requirements**(1) Protection of confidential information of Center clients**

The following information, if obtained by the Federal Government in connection with an activity of a Center or the Program, shall be exempt from public disclosure under section 552 of title 5:

(A) Information on the business operation of any participant in the Program or of a client of a Center.

(B) Trade secrets of any client of a Center.

(k) Oversight boards**(1) In general**

As a condition on receipt of financial assistance for a Center under subsection (e), an eligible entity shall establish a board to oversee the operations of the Center.

(2) Standards**(A) In general**

The Director shall establish appropriate standards for each board described under paragraph (1).

(B) Considerations

In establishing the standards, the Director shall take into account the type and organizational structure of an eligible entity.

(C) Requirements

The standards shall address—

- (i) membership;
- (ii) composition;
- (iii) term limits;
- (iv) conflicts of interest; and
- (v) such other requirements as the Director considers necessary.

(3) Membership**(A) In general**

Each board established under paragraph (1) shall be composed of members as follows:

- (i) The membership of each board shall be representative of stakeholders in the region in which the Center is located.
- (ii) A majority of the members of the board shall be selected from among individuals who own or are employed by small or medium-sized manufacturers.

(B) Limitation

A member of a board established under paragraph (1) may not serve on more than 1 board established under that paragraph.

(4) Bylaws**(A) In general**

Each board established under paragraph (1) shall adopt and submit to the Director bylaws to govern the operation of the board.

(B) Conflicts of interest

Bylaws adopted under subparagraph (A) shall include policies to minimize conflicts of interest, including such policies relating to disclosure of relationships and recusal as may be necessary to minimize conflicts of interest.

(I) Acceptance of funds**(1) In general**

To the extent provided in advance in appropriations Acts, other Federal departments and agencies may transfer amounts to the Institute, and the Secretary and Director may accept and make available cash donations from the private sector pursuant to section 272(c)(7) of this title, to be used for strengthening United States manufacturing under this section.

(2) Competitive awards

Funds accepted from other Federal departments and agencies and from the private sector under paragraph (1) shall be awarded competitively by the Secretary and Director to Centers, provided that the Secretary and Director may make noncompetitive³ awards, pursuant to this section or section 278k-1 of this title, or as a non-competitive³ contract, as appropriate, if the Secretary and Director determine that—

(A) the manufacturing market or sector targeted is limited geographically or in scope;

(B) the number of States (or territory, in the case of Puerto Rico) with Centers serving manufacturers of such market or sector is five or fewer; and

(C) such Center has or Centers have received a positive evaluation in the most recent evaluation conducted pursuant to subsection (g).

(m) MEP Advisory Board**(1) Establishment**

There is established within the Institute a Manufacturing Extension Partnership Advisory Board.

(2) Membership**(A) Composition****(i) In general**

The MEP Advisory Board shall consist of not fewer than 10 members appointed by the Director and broadly representative of stakeholders.

(ii) Requirements

Of the members appointed under clause (i)—

(I) at least 2 members shall be employed by or on an advisory board for a Center;

(II) at least 5 members shall be from United States small businesses in the manufacturing sector; and

(III) at least 1 member shall represent a community college.

(iii) Limitation

No member of the MEP Advisory Board shall be an employee of the Federal Government.

(B) Term

Except as provided in subparagraph (C), the term of office of each member of the MEP Advisory Board shall be 3 years.

(C) Vacancies

Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term.

(D) Serving consecutive terms

Any person who has completed 2 consecutive full terms of service on the MEP Advisory Board shall thereafter be ineligible for appointment during the 1-year period following the expiration of the second such term.

(3) Meetings

The MEP Advisory Board shall—

(A) meet not less than biannually; and

(B) provide to the Director—

(i) advice on the activities, plans, and policies of the Program;

(ii) assessments of the soundness of the plans and strategies of the Program; and

(iii) assessments of current performance against the plans of the Program.

(4) Applicability of chapter 10 of title 5**(A) In general**

In discharging its duties under this subsection, the MEP Advisory Board shall function solely in an advisory capacity, in accordance with chapter 10 of title 5.

(B) Exception

Section 1013 of title 5 shall not apply to the MEP Advisory Board.

(5) Annual report**(A) In general**

At a minimum, the MEP Advisory Board shall transmit an annual report to the Secretary for transmittal to Congress not later than 30 days after the submission to Congress of the President's annual budget under section 1105 of title 31.

(B) Contents

The report shall address the status of the Program and describe the relevant sections of the programmatic planning document and updates thereto transmitted to Congress by the Director under subsections (c) and (d) of section 278i⁴ of this title.

(n) Small manufacturers**(1) Evaluation of obstacles**

As part of the Program, the Director shall—

(A) identify obstacles that prevent United States-based small manufacturers from effectively competing in the global market;

(B) implement a comprehensive plan to train the Centers to address the obstacles identified in paragraph (2); and

(C) facilitate improved communication between the Centers to assist such manufac-

⁴ See References in Text note below.

turers in implementing appropriate, targeted solutions to the obstacles identified in paragraph (2).

(2) Development of open access resources

As part of the Program, the Secretary shall develop open access resources that address best practices related to inventory sourcing, supply chain management, manufacturing techniques, available Federal resources, and other topics to further the competitiveness and profitability of small manufacturers.

(Mar. 3, 1901, ch. 872, §25, as added Pub. L. 100-418, title V, §5121(a), Aug. 23, 1988, 102 Stat. 1433; amended Pub. L. 102-245, title I, §105(e), Feb. 14, 1992, 106 Stat. 12; Pub. L. 105-309, §2, Oct. 30, 1998, 112 Stat. 2935; Pub. L. 110-69, title III, §3003, Aug. 9, 2007, 121 Stat. 587; Pub. L. 111-240, title IV, §4226(a), Sept. 27, 2010, 124 Stat. 2598; Pub. L. 111-358, title IV, §404(a)-(f)(1), (3), (h), (i), title VII, §703, Jan. 4, 2011, 124 Stat. 4001-4003, 4042; Pub. L. 114-329, title V, §501(b), Jan. 6, 2017, 130 Stat. 3023; Pub. L. 117-167, div. B, title II, §§10252(a), (b), (d), 10255, Aug. 9, 2022, 136 Stat. 1499, 1503; Pub. L. 117-286, §4(a)(65), Dec. 27, 2022, 136 Stat. 4312.)

Editorial Notes

REFERENCES IN TEXT

Subsections (c) and (d) of section 278i of this title, referred to in subsec. (m)(5)(B), which related to 3-year programmatic planning documents and annual updates, were repealed by Pub. L. 114-329, title II, §204(a)(1)(B)(i), Jan. 6, 2017, 130 Stat. 2998.

AMENDMENTS

2022—Subsec. (a)(5). Pub. L. 117-167, §10252(b)(1), struck out “or consortium thereof,” before “an institution of higher education” and inserted “or a consortium thereof” before period at end.

Subsec. (a)(6) to (8). Pub. L. 117-167, §10255(1)-(4), added pars. (6) defining historically Black college and university and (7) defining institution of higher education and redesignated former pars. (6) defining Hollings Manufacturing Extension Partnership or Program and (7) defining MEP Advisory Board as (7) and (8), respectively.

Subsec. (a)(9) to (11). Pub. L. 117-167, §10255(5), added pars. (9) to (11).

Subsec. (c)(4). Pub. L. 117-167, §10252(b)(2), inserted “United States-based” before “industrial”.

Subsec. (c)(6). Pub. L. 117-167, §10252(d)(1)(A), substituted “secondary schools, community colleges, and area career and technical education schools, including those in underserved and rural communities,” for “community colleges and area career and technical education schools”.

Subsec. (c)(7). Pub. L. 117-167, §10252(d)(1)(B), substituted “local secondary schools and local colleges, including historically Black colleges and universities, Tribal Colleges or Universities, minority-serving institutions, community colleges, and secondary schools and colleges in underserved and rural communities,” for “and local colleges” and inserted “or other applied learning opportunities” after “apprenticeships”.

Subsec. (d)(1). Pub. L. 117-167, §10252(b)(3)(A), inserted “at United States-based industrial facilities, including small and medium manufacturing companies” before “based”.

Subsec. (d)(2). Pub. L. 117-167, §10252(b)(3)(B), inserted “United States-based” before “companies”.

Subsec. (d)(3). Pub. L. 117-167, §10252(d)(2), substituted “and local high schools, community colleges, and area career and technical education schools, including those in underserved and rural communities,” for

“; community colleges, and area career and technical education schools.”.

Pub. L. 117-167, §10252(b)(3)(C), inserted “United States-based” before “small”.

Subsec. (f)(5)(B)(i). Pub. L. 117-167, §10252(b)(4), inserted before semicolon at end “in the United States”.

Subsec. (i). Pub. L. 117-167, §10252(a), amended subsec. (i) generally. Prior to amendment, text read as follows: “In addition to such sums as may be appropriated to the Secretary and Director to operate the Program, the Secretary and Director may also accept funds from other Federal departments and agencies and from the private sector under section 272(c)(7) of this title, to be available to the extent provided by appropriations Acts, for the purpose of strengthening United States manufacturing.”

Subsec. (m)(4). Pub. L. 117-286, §4(a)(65)(A), substituted “Applicability of chapter 10 of title 5” for “FACA applicability” in heading.

Subsec. (m)(4)(A). Pub. L. 117-286, §4(a)(65)(B), substituted “chapter 10 of title 5.” for “the Federal Advisory Committee Act (5 U.S.C. App.).”

Subsec. (m)(4)(B). Pub. L. 117-286, §4(a)(65)(C), substituted “Section 1013 of title 5” for “Section 14 of the Federal Advisory Committee Act”.

Subsec. (n)(1)(A). Pub. L. 117-167, §10252(b)(5), inserted “United States-based” before “small”.

2017—Pub. L. 114-329 amended section generally. Prior to amendment, section related to establishment of regional centers for the transfer of manufacturing technology, the MEP Advisory Board, a competitive grant program, and an innovative services initiative.

2011—Subsec. (a). Pub. L. 111-358, §404(f)(3)(A), substituted “regional centers for the transfer of manufacturing technology” for “Regional Centers for the Transfer of Manufacturing Technology” in introductory provisions.

Subsec. (a)(6). Pub. L. 111-358, §404(a), added par. (6).

Subsec. (c)(7), (8). Pub. L. 111-358, §404(d), added pars. (7) and (8).

Subsec. (e)(4). Pub. L. 111-358, §404(e), amended par. (4) generally. Prior to amendment, text read as follows: “In discharging its duties under this subsection, the MEP Advisory Board shall function solely in an advisory capacity, in accordance with the Federal Advisory Committee Act.”

Subsec. (f)(3). Pub. L. 111-358, §703(a), substituted “to add capabilities to the MEP program, including the development of” for “to develop” and “Centers may be reimbursed for costs incurred under the program. These themes—” for “These themes shall be related to projects associated with manufacturing extension activities, including supply chain integration and quality management, and including the transfer of technology based on the technological needs of manufacturers and available technologies from institutions of higher education, laboratories, and other technology producing entities, or extend beyond these traditional areas.” and added subpars. (A) to (C).

Pub. L. 111-358, §404(i), substituted “Director of the Hollings MEP program,” for “Director of the Centers program,”.

Subsec. (f)(5). Pub. L. 111-358, §703(b), amended par. (5) generally. Prior to amendment, text read as follows: “Awards under this subsection shall be peer reviewed and competitively awarded. The Director shall select proposals to receive awards—

“(A) that utilize innovative or collaborative approaches to solving the problem described in the competition;

“(B) that will improve the competitiveness of industries in the region in which the Center or Centers are located; and

“(C) that will contribute to the long-term economic stability of that region.”

Subsec. (f)(7). Pub. L. 111-358, §703(c), added par. (7) relating to duration.

Subsec. (f)(8), (9). Pub. L. 111-358, §703(c), added pars. (8) and (9).

Subsec. (g). Pub. L. 111-358, §404(b), added subsec. (g).

Subsec. (h). Pub. L. 111-358, § 404(c), added subsec. (h).
 Subsec. (i). Pub. L. 111-358, § 404(f)(1), added subsec. (i).

Subsec. (j). Pub. L. 111-358, § 404(f)(3)(B), added subsec. (j).

Subsec. (k). Pub. L. 111-358, § 404(h), added subsec. (k).
 2010—Subsec. (f)(7). Pub. L. 111-240 added par. (7) relating to global marketplace projects.

2007—Subsec. (c)(3). Pub. L. 110-69, § 3003(a), amended par. (3) generally. Prior to amendment, par. (3) read as follows: “Any nonprofit institution, or group thereof, or consortia of nonprofit institutions, including entities existing on August 23, 1988, may submit to the Secretary an application for financial support under this subsection, in accordance with the procedures established by the Secretary and published in the Federal Register under paragraph (2). In order to receive assistance under this section, an applicant shall provide adequate assurances that it will contribute 50 percent or more of the proposed Center’s capital and annual operating and maintenance costs for the first three years and an increasing share for each of the last three years. Each applicant shall also submit a proposal for the allocation of the legal rights associated with any invention which may result from the proposed Center’s activities.”

Subsec. (c)(5). Pub. L. 110-69, § 3003(b), inserted “A Center that has not received a positive evaluation by the evaluation panel shall be notified by the panel of the deficiencies in its performance and shall be placed on probation for one year, after which time the panel shall reevaluate the Center. If the Center has not addressed the deficiencies identified by the panel, or shown a significant improvement in its performance, the Director shall conduct a new competition to select an operator for the Center or may close the Center.” after “at declining levels.”

Subsec. (d). Pub. L. 110-69, § 3003(c), added subsec. (d) and struck out former subsec. (d). Text of former subsec. (d) read as follows: “In addition to such sums as may be authorized and appropriated to the Secretary and Director to operate the Centers program, the Secretary and Director also may accept funds from other Federal departments and agencies for the purpose of providing Federal funds to support Centers. Any Center which is supported with funds which originally came from other Federal departments and agencies shall be selected and operated according to the provisions of this section.”

Subsec. (e). Pub. L. 110-69, § 3003(d), added subsec. (e).

Subsec. (f). Pub. L. 110-69, § 3003(e), added subsec. (f).

1998—Subsec. (c)(5). Pub. L. 105-309 substituted “. After the sixth year, a Center may receive additional financial support under this section if it has received a positive evaluation through an independent review, under procedures established by the Institute. Such an independent review shall be required at least every two years after the sixth year of operation. Funding received for a fiscal year under this section after the sixth year of operation shall not exceed one third of the capital and annual operating and maintenance costs of the Center under the program.” for “, which are designed to ensure that the Center no longer needs financial support from the Institute by the seventh year. In no event shall funding for a Center be provided by the Department of Commerce after the sixth year of the operation of a Center.”

1992—Subsec. (c)(6). Pub. L. 102-245, § 105(e)(1), inserted before period at end “except for contracts for such specific technology extension or transfer services as may be specified by statute or by the Director”.

Subsec. (d). Pub. L. 102-245, § 105(e)(2), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: “There are authorized to be appropriated for the purposes of carrying out this section, a combined total of not to exceed \$40,000,000 for fiscal years 1989 and 1990. Such sums shall remain available until expended.”

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Pub. L. 108-447, div. B, title II, Dec. 8, 2004, 118 Stat. 2879, which in part renamed the Manufacturing Extension Partnership Program authorized under this section as the Hollings Manufacturing Partnership Program and which named the centers established and receiving funding under former subsec. (a) of this section the Hollings Manufacturing Extension Centers, was repealed by Pub. L. 111-358, title IV, § 404(f)(2), Jan. 4, 2011, 124 Stat. 4002.

SAVINGS PROVISIONS

Pub. L. 114-329, title V, § 501(f), Jan. 6, 2017, 130 Stat. 3033, provided that: “Notwithstanding the amendments made by subsections (a) [sic: subsec. (a) is set out as a Short Title of 2017 Amendment note under section 271 of this title] and (b) of this section [amending this section], the Secretary of Commerce may carry out section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) as that section was in effect on the day before the date of enactment of this Act [Jan. 6, 2017], with respect to existing grants, agreements, cooperative agreements, or contracts, and with respect to applications for such items that are received by the Secretary prior to the date of enactment of this Act.”

RESOURCE OPTIMIZATION

Pub. L. 117-167, div. B, title II, § 10251(b), Aug. 9, 2022, 136 Stat. 1498, provided that: “Of amounts authorized for the Hollings Manufacturing Extension Partnership program under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k), the Secretary [of Commerce] shall optimize funding across sections 25 and 25A of such Act [15 U.S.C. 278k, 278k-1], as well as the program established under section 25B of such Act [15 U.S.C. 278k-2] (as added by subsection (a)), to the extent practicable and subject to the availability of appropriations, in order to maximize Center (as such term is defined in such section 25) participation as well as competitiveness, productivity, and technological performance in United States manufacturing.”

PATENT RIGHTS

Pub. L. 114-329, title V, § 501(g), Jan. 6, 2017, 130 Stat. 3033, provided that: “The provisions of chapter 18 of title 35, United States Code, shall apply, to the extent not inconsistent with section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k) and section 25 [sic] of that Act, to the promotion of technology from research by Centers under those sections, except for contracts for such specific technology extension or transfer services as may be specified by the Director of NIST [National Institute of Standards and Technology] or under other law.”

FINDINGS

Pub. L. 111-358, title VII, § 702, Jan. 4, 2011, 124 Stat. 4041, provided that: “Congress finds the following:

“(1) Over its 20-year existence, the Hollings Manufacturing Extension Partnership has proven its value to manufacturers as demonstrated by the resulting impact on jobs and the economies of all 50 States and the Nation as a whole.

“(2) The Hollings Manufacturing Extension Partnership has helped thousands of companies reinvest in themselves through process improvement and business growth initiatives leading to more sales, new markets, and the adoption of technology to deliver new products and services.

“(3) Manufacturing is an increasingly important part of the construction sector as the industry moves to the use of more components and factory built sub-assemblies.

“(4) Construction practices must become more efficient and precise if the United States is to construct

and renovate its building stock to reduce related carbon emissions to levels that are consistent with combating global warming.

“(5) Many companies involved in construction are small, without access to innovative manufacturing techniques, and could benefit from the type of training and business analysis activities that the Hollings Manufacturing Extension Partnership routinely provides to the Nation’s manufacturers and their supply chains.

“(6) Broadening the competitiveness grant program under [former] section 25(f) of the National Institute of Standards and Technology Act ([former] 15 U.S.C. 278k(f), now see 15 U.S.C. 278k-1) could help develop and diffuse knowledge necessary to capture a large portion of the estimated \$100 billion or more in energy savings if buildings in the United States met the level and quality of energy efficiency now found in buildings in certain other countries.

“(7) It is therefore in the national interest to expand the capabilities of the Hollings Manufacturing Extension Partnership to be supportive of the construction and green energy industries.”

AGREEMENTS AND CONTRIBUTIONS FOR COLLECTIVE RESEARCH AND DEVELOPMENT INITIATIVES

Pub. L. 108-7, div. B, title II, Feb. 20, 2003, 117 Stat. 73, provided in part: “That hereafter the Secretary of Commerce is authorized to enter into agreements with one or more nonprofit organizations for the purpose of carrying out collective research and development initiatives pertaining to [former] 15 U.S.C. 278k paragraph (a), and is authorized to seek and accept contributions from public and private sources to support these efforts as necessary.”

Similar provisions were contained in the following prior appropriation act:

Pub. L. 107-77, title II, Nov. 28, 2001, 115 Stat. 774.

ADDITIONAL RENEWAL OF FEDERAL FINANCIAL ASSISTANCE FOR CENTERS

Pub. L. 105-277, div. A, §101(b) [title II], Oct. 21, 1998, 112 Stat. 2681-50, 2681-83, which provided that Federal financial assistance awarded by the Secretary of Commerce to a Regional Center for the Transfer of Manufacturing Technology could continue beyond six years and could be renewed for additional periods, not to exceed one year, at a rate not to exceed one-third of the Center’s total annual costs or the level of funding in the sixth year, whichever was less, subject before any such renewal to a positive evaluation of the Center and to a finding by the Secretary of Commerce that continuation of Federal funding to the Center was in the best interest of the Regional Centers for the Transfer of Manufacturing Technology Program, was from the Departments of Commerce Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 1999, and was not repeated in subsequent appropriations Acts. Similar provisions were contained in the following prior appropriation acts:

Pub. L. 105-119, title II, Nov. 26, 1997, 111 Stat. 2476.

Pub. L. 104-208, div. A, title I, §101(a) [title II], Sept. 30, 1996, 110 Stat. 3009, 3009-36.

Pub. L. 103-317, title II, Aug. 26, 1994, 108 Stat. 1741.

PUBLICATION IN FEDERAL REGISTER

Pub. L. 100-519, title I, §102(d), Oct. 24, 1988, 102 Stat. 2590, provided that the requirement of former subsec. (c)(2) of this section was met by the publication made by the National Bureau of Standards on July 18, 1988, at 53 F.R. 27060.

§ 278k-1. Competitive awards program

(a) Establishment

The Director shall establish within the Hollings Manufacturing Extension Partnership under section 278k of this title and section 278l of this title a program of competitive awards

among participants described in subsection (b) of this section for the purposes described in subsection (c).

(b) Participants

Participants receiving awards under this section shall be Centers, or a consortium of Centers.

(c) Purpose, themes, and reimbursement

(1) Purpose

The purpose of the program established under subsection (a) is to add capabilities to the Hollings Manufacturing Extension Partnership, including the development of projects to solve new or emerging manufacturing problems as determined by the Director, in consultation with the Director of the Hollings Manufacturing Extension Partnership, the MEP Advisory Board, other Federal agencies, and small and medium-sized manufacturers.

(2) Themes

The Director may identify 1 or more themes for a competition carried out under this section, which may vary from year to year, as the Director considers appropriate after assessing the needs of United States manufacturers and the success of previous competitions.

(3) Reimbursement

Centers may be reimbursed for costs incurred by the Centers under this section.

(d) Applications

Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the MEP Advisory Board.

(e) Selection

(1) Peer review and competitively awarded

The Director shall ensure that awards under this section are peer reviewed and competitively awarded.

(2) Geographic diversity

The Director shall endeavor to have broad geographic diversity among selected proposals.

(3) Criteria

The Director shall select applications to receive awards that the Director determines will achieve 1 or more of the following:

(A) Improve the competitiveness of industries in the region in which the Center or Centers are located.

(B) Create jobs or train newly hired employees.

(C) Promote the transfer and commercialization of research and technology from institutions of higher education, national laboratories or other federally funded research programs, and nonprofit research institutes.

(D) Recruit a diverse manufacturing workforce, including through outreach to under-represented populations, including individuals identified in section 1885a or section 1885b of title 42.

(E) Such other result as the Director determines will advance the objective set forth

in section 278k(c) of this title or in section 278l of this title.

(f) Program Contribution

Recipients of awards under this section shall not be required to provide a matching contribution.

(g) Global marketplace projects

In making an award under this section, the Director, in consultation with the MEP Advisory Board and the Secretary, may take into consideration whether an application has significant potential for enhancing the competitiveness of small and medium-sized United States manufacturers in the global marketplace.

(h) Duration

The duration of an award under this section shall be for not more than 3 years.

(i) Definitions

The terms used in this section have the meanings given the terms in section 278k of this title.

(Mar. 3, 1901, ch. 872, §25A, as added Pub. L. 114-329, title V, §501(c), Jan. 6, 2017, 130 Stat. 3031; amended Pub. L. 117-167, div. B, title II, §10252(c), Aug. 9, 2022, 136 Stat. 1499.)

Editorial Notes

PRIOR PROVISIONS

Provisions similar to this section were contained in section 278k(f) of this title, prior to the general amendment of section 278k by Pub. L. 114-329.

AMENDMENTS

2022—Subsec. (c)(2). Pub. L. 117-167 inserted “United States” before “manufacturers”.

§ 278k-2. Expansion awards pilot program

(a) Definitions

The terms used in this section have the meanings given the terms in section 278k of this title.

(b) Establishment

The Director shall establish, subject to the availability of appropriations, as a part of the Hollings Manufacturing Extension Partnership under sections 278k and 278k-1 of this title, a pilot program of expansion awards among participants described in subsection (c) for the purposes described in subsection (e).

(c) Participants

Participants receiving awards under this section shall be Centers, or a consortium of Centers (as such term is defined in section 278k of this title).

(d) Award amounts

Subject to the availability of appropriations, an award for a recipient under this section shall be in an amount equal to the sum of the following:

(1) Such amount as the Director considers appropriate as a minimum base funding level for each award under this section.

(2) Such additional amount as the Director considers in proportion to the manufacturing density of the region of the recipient.

(3) Such supplemental amounts as the Director considers appropriate.

(e) Purpose of awards

An award under this section shall be made for one or more of the following purposes:

(1) To provide worker education, training, development, and entrepreneurship training and to connect individuals or business with such services offered in their community, which may include employee ownership and workforce training, including connecting manufacturers with career and technical education entities, institutions of higher education (including community colleges), workforce development boards, labor organizations, and non-profit job training providers to develop and support training and job placement services, including apprenticeship and online learning platforms, for new and incumbent workers, programming to prevent job losses when adopting new technologies and processes, and development of employee ownership practices.

(2) To provide services to improve the resiliency of domestic supply chains.

(3) To mitigate vulnerabilities to cyberattacks, including helping to offset the cost of cybersecurity projects for small manufacturers.

(4) To expand advanced technology services to United States-based small- and medium-sized manufacturers, which may include—

(A) developing technology demonstration laboratories;

(B) training and demonstration in areas of supply chain and critical technology needs, including a focus on the demonstration of technologies developed by companies based in the United States;

(C) services for the adoption of advanced technologies, including smart manufacturing technologies and practices; and

(D) establishing partnerships, for the development, demonstration, and deployment of advanced technologies, with—

(i) national laboratories (as defined in section 15801 of title 42);

(ii) Federal laboratories;

(iii) Manufacturing USA institutes (as described in section 278s(d) of this title); and

(iv) institutions of higher education.

(5) To build capabilities across the Hollings Manufacturing Extension Partnership for domestic supply chain resiliency and optimization, including—

(A) assessment of domestic manufacturing capabilities, expanded capacity for researching and deploying information on supply chain risk, hidden costs of reliance on off-shore suppliers, redesigning products and processes to encourage reshoring, and other relevant topics; and

(B) expanded services to provide industry-wide support that assists United States manufacturers with reshoring manufacturing to strengthen the resiliency of domestic supply chains, including in critical technology areas and foundational manufacturing capabilities that are key to domestic manufacturing competitiveness and resiliency, including forming, casting, machining, joining, surface treatment, tooling, and metal or chemical refining.

(f) Reimbursement

The Director may reimburse Centers for costs incurred by the Centers under this section.

(g) Applications

Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require in consultation with the Manufacturing Extension Partnership Advisory Board.

(h) Selection**(1) Reviewed and merit-based**

The Director shall ensure that awards under this section are reviewed and merit-based.

(2) Geographic diversity

The Director shall endeavor to have broad geographic diversity among selected proposals.

(3) Criteria

The Director shall select applications consistent with the purposes identified pursuant to subsection (e) to receive awards that the Director determines will achieve one or more of the following:

(A) Improvement of the competitiveness of industries in the region in which the Center or Centers are located.

(B) Creation of jobs or training of newly hired employees.

(C) Promotion of the transfer and commercialization of research and technology from institutions of higher education, national laboratories, or other federally funded research programs, and nonprofit research institutes.

(D) Recruitment of a diverse manufacturing workforce, including through outreach to underrepresented populations, including individuals identified in section 1885a or section 1885b of title 42.

(E) Any other result the Director determines will advance the objective set forth in section 278k(c) or 278k-1 of this title.

(i) Program contribution

Recipients of awards under this section shall not be required to provide a matching contribution.

(j) Global marketplace projects

In making an award under this section, the Director, in consultation with the Manufacturing Extension Partnership Advisory Board and the Secretary, may take into consideration whether an application has significant potential for enhancing the competitiveness of small and medium-sized United States manufacturers in the global marketplace.

(k) Duration

The Director shall ensure that the duration of an award under this section is aligned and consistent with a Center's cooperative agreement established in section 278k(e) of this title.

(l) Report

Not later than October 1, 2025, the Director shall submit to Congress a report that includes—

(1) a summary description of what activities were funded and the measurable outcomes of such activities;

(2) a description of which types of activities under paragraph (1) could remain as part of a permanent expansion awards program;

(3) a description of which types of activities under paragraph (1) could be integrated into, and supported under, the program under section 278k of this title;

(4) a description of which types of activities under paragraph (1) could be integrated into, and supported under, the competitive awards program under section 278k-1 of this title; and

(5) a recommendation, supported by a clear explanation, as to whether the pilot program should be continued.

(Mar. 3, 1901, ch. 872, §25B, as added Pub. L. 117-167, div. B, title II, §10251(a), Aug. 9, 2022, 136 Stat. 1496.)

§ 278I. Assistance to State technology programs

(a) In addition to the Hollings Manufacturing Extension Partnership under section 278k of this title, the Secretary, through the Director and, if appropriate, through other officials, shall provide technical assistance to State technology programs throughout the United States, in order to help those programs help businesses, particularly small- and medium-sized businesses, to enhance their competitiveness through the application of science and technology.

(b) Such assistance from the Institute to State technology programs shall include, but not be limited to—

(1) technical information and advice from Institute personnel;

(2) workshops and seminars for State officials interested in transferring Federal technology to businesses; and

(3) entering into cooperative agreements when authorized to do so under this chapter or any other Act.

(Mar. 3, 1901, ch. 872, §26, as added Pub. L. 100-418, title V, §5121(a), Aug. 23, 1988, 102 Stat. 1435; amended Pub. L. 114-329, title V, §501(e)(3), Jan. 6, 2017, 130 Stat. 3033.)

Editorial Notes**AMENDMENTS**

2017—Subsec. (a). Pub. L. 114-329 substituted “Hollings Manufacturing Extension Partnership” for “Centers program created”.

Statutory Notes and Related Subsidiaries**TECHNOLOGY EXTENSION SERVICES**

Pub. L. 100-418, title V, §5121(b), (c), Aug. 23, 1988, 102 Stat. 1436, 1437, as amended by Pub. L. 102-245, title I, §105(d), Feb. 14, 1992, 106 Stat. 12, provided that:

“(b) TECHNOLOGY EXTENSION SERVICES.—(1) The Secretary shall conduct a nationwide study of current State technology extension services. The study shall include—

“(A) a thorough description of each State program, including its duration, its annual budget, and the number and types of businesses it has aided;

“(B) a description of any anticipated expansion of each State program and its associated costs;

“(C) an evaluation of the success of the services in transferring technology, modernizing manufacturing

processes, and improving the productivity and profitability of businesses;

“(D) an assessment of the degree to which State services make use of Federal programs, including the Small Business Innovative Research program and the programs of the Federal Laboratory Consortium, the National Technical Information Service, the National Science Foundation, the Office of Productivity, Technology, and Innovation, and the Small Business Administration;

“(E) a survey of what additional Federal information and technical assistance the services could utilize; and

“(F) an assessment of how the services could be more effective agents for the transfer of Federal scientific and technical information, including the results and application of Federal and federally funded research.

The Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, at the time of submission of the organization plan for the Institute under section 5112(d)(1) [of Pub. L. 100-418, set out as a note under section 272 of this title], the results of the study and an initial implementation plan for the programs under section 26 of the Act of March 3, 1901 [15 U.S.C. 278l], and under this section [enacting sections 278k to 278m of this title]. The implementation plan shall include methods of providing technical assistance to States and criteria for awarding financial assistance under this section. The Secretary may make use of contractors and experts for any or all of the studies and findings called for in this section.

“(2)(A) The Institute shall enter into cooperative agreements with State technology extension services to—

“(i) demonstrate methods by which the States can, in cooperation with Federal agencies, increase the use of Federal technology by businesses within their States to improve industrial competitiveness; or

“(ii) help businesses in their States take advantage of the services and information offered by the Regional Centers for the Transfer of Manufacturing Technology created under [former] section 25 of the Act of March 3, 1901 [former 15 U.S.C. 278k].

“(B) Any State, for itself or for a consortium of States, may submit to the Secretary an application for a cooperative agreement under this subsection, in accordance with procedures established by the Secretary. To qualify for a cooperative agreement under this subsection, a State shall provide adequate assurances that it will increase its spending on technology extension services by an amount at least equal to the amount of Federal assistance.

“(C) In evaluating each application, the Secretary shall consider—

“(i) the number and types of additional businesses that will be assisted under the cooperative agreement;

“(ii) the extent to which the State extension service will demonstrate new methods to increase the use of Federal technology;

“(iii) geographic diversity; and

“(iv) the ability of the State to maintain the extension service after the cooperative agreement has expired.

“(D) States which are party to cooperative agreements under this subsection may provide services directly or may arrange for the provision of any or all of such services by institutions of higher education or other non-profit institutions or organizations.

“(3) In carrying out section 26 of the Act of March 3, 1901 [15 U.S.C. 278l], and this subsection, the Secretary shall coordinate the activities with the Federal Laboratory Consortium; the National Technical Information Service; the National Science Foundation; the Office of Productivity, Technology, and Innovation; the Small Business Administration; and other appropriate Federal agencies.

“(4) There are authorized to be appropriated for the purposes of this subsection \$2,000,000 for each of the fiscal years 1989, 1990, and 1991.

“(c) FEDERAL TECHNOLOGY TRANSFER ACT OF 1986.—Nothing in sections [sic] 25 or 26 of the Act of March 3, 1901 [15 U.S.C. 278k, 278l], or in subsection (b) of this section shall be construed as limiting the authorities contained in the Federal Technology Transfer Act of 1986 (Public Law 99-502) [see Short Title of 1986 Amendments note set out under section 3701 of this title].”

§ 278m. Repealed. Pub. L. 110-69, title III, § 3013(d), Aug. 9, 2007, 121 Stat. 599

Section, act Mar. 3, 1901, ch. 872, § 27, as added Pub. L. 100-418, title V, § 5121(d), Aug. 23, 1988, 102 Stat. 1437, related to the establishment of a program for the evaluation of non-energy inventions.

§ 278n. Repealed. Pub. L. 114-329, title II, § 205(a)(1), Jan. 6, 2017, 130 Stat. 3000

Section, act Mar. 3, 1901, ch. 872, § 28, as added Pub. L. 110-69, title III, § 3012(b), Aug. 9, 2007, 121 Stat. 593; amended Pub. L. 113-188, title II, § 201(d), (e), Nov. 26, 2014, 128 Stat. 2018, related to the Technology Innovation Program.

A prior section 278n, act Mar. 3, 1901, ch. 872, § 28, as added Pub. L. 100-418, title V, § 5131(a), Aug. 23, 1988, 102 Stat. 1439; amended Pub. L. 102-245, title II, § 201(c), Feb. 14, 1992, 106 Stat. 16, related to the Advanced Technology Program, prior to repeal by Pub. L. 110-69, title III, § 3012(a), Aug. 9, 2007, 121 Stat. 593.

Statutory Notes and Related Subsidiaries

TECHNOLOGY INNOVATION PROGRAM

Pub. L. 111-240, title IV, § 4226(b), Sept. 27, 2010, 124 Stat. 2598, which allowed the Director of NIST to consider the potential for enhancing the competitiveness of small- and medium-sized U.S. businesses in the global marketplace when awarding grants, cooperative agreements, or contracts under this section, was repealed by Pub. L. 114-329, title II, § 205(a)(2)(A), Jan. 6, 2017, 130 Stat. 3000.

§ 278n-1. Emergency communication and tracking technologies research initiative

(a) Establishment

The Director shall establish a research initiative to support the development of emergency communication and tracking technologies for use in locating trapped individuals in confined spaces, such as underground mines, and other shielded environments, such as high-rise buildings or collapsed structures, where conventional radio communication is limited.

(b) Activities

In order to carry out this section, the Director shall work with the private sector and appropriate Federal agencies to—

(1) perform a needs assessment to identify and evaluate the measurement, technical standards, and conformity assessment needs required to improve the operation and reliability of such emergency communication and tracking technologies;

(2) support the development of technical standards and conformance architecture to improve the operation and reliability of such emergency communication and tracking technologies; and

(3) incorporate and build upon existing reports and studies on improving emergency communications.

(c) Report

Not later than 18 months after January 4, 2011, the Director shall submit to Congress and make publicly available a report describing the assessment performed under subsection (b)(1) and making recommendations about research priorities to address gaps in the measurement, technical standards, and conformity assessment needs identified by the assessment.

(Pub. L. 111-358, title IV, § 405, Jan. 4, 2011, 124 Stat. 4003.)

Editorial Notes**CODIFICATION**

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and as part of the National Institute of Standards and Technology Authorization Act of 2010, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries**DEFINITIONS**

Pub. L. 111-358, title IV, § 409, Jan. 4, 2011, 124 Stat. 4004, provided that: “In this title [enacting this section and sections 273a and 278n-2 of this title, amending sections 274, 278g-1, 278g-2, 278g-2a, and 278k of this title and sections 5314 and 5315 of Title 5, Government Organization and Employees, and repealing section 1533 of this title and provisions set out as a note under section 278k of this title]:

“(1) **DIRECTOR**.—The term ‘Director’ means the Director of the National Institute of Standards and Technology.

“(2) **FEDERAL AGENCY**.—The term ‘Federal agency’ has the meaning given such term in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703).

“(3) **HIGH PERFORMANCE GREEN BUILDING**.—The term ‘high performance green building’ has the meaning given that term by section 401(13) of the Energy Independence and Security Act of 2009 [probably should be ‘2007’] (42 U.S.C. 17061(13)).”

§ 278n-2. Green manufacturing and construction

The Director shall carry out a green manufacturing and construction initiative—

(1) to develop accurate sustainability metrics and practices for use in manufacturing;

(2) to advance the development of standards, including high performance green building standards, and the creation of an information infrastructure to communicate sustainability information about suppliers; and

(3) to move buildings toward becoming high performance green buildings, including improving energy performance, service life, and indoor air quality of new and retrofitted buildings through validated measurement data.

(Pub. L. 111-358, title IV, § 408, Jan. 4, 2011, 124 Stat. 4004.)

Editorial Notes**CODIFICATION**

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the

America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and as part of the National Institute of Standards and Technology Authorization Act of 2010, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

Statutory Notes and Related Subsidiaries**DEFINITIONS**

For definitions of “Director” and “high performance green building” as used in this section, see section 409 of Pub. L. 111-358, set out as a note under section 278n-1 of this title.

§ 278o. User fees

The Institute shall not implement a policy of charging fees with respect to the use of Institute research facilities by research associates in the absence of express statutory authority to charge such fees.

(Mar. 3, 1901, ch. 872, § 30, as added Pub. L. 100-418, title V, § 5161, Aug. 23, 1988, 102 Stat. 1450.)

§ 278p. Notice to Congress**(a) Notice of reprogramming**

If any funds authorized for carrying out this chapter are subject to a reprogramming action that requires notice to be provided to the Appropriations Committees of the House of Representatives and the Senate, notice of such action shall concurrently be provided to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(b) Notice of reorganization**(1) Requirement**

The Secretary shall provide notice to the Committees on Science and Appropriations of the House of Representatives, and the Committees on Commerce, Science, and Transportation and Appropriations of the Senate, not later than 15 days before any major reorganization of any program, project, or activity of the Institute.

(2) “Major reorganization” defined

For purposes of this subsection, the term “major reorganization” means any reorganization of the Institute that involves the reassignment of more than 25 percent of the employees of the Institute.

(Mar. 3, 1901, ch. 872, § 31, as added Pub. L. 105-309, § 4(b), Oct. 30, 1998, 112 Stat. 2935.)

Statutory Notes and Related Subsidiaries**CHANGE OF NAME**

Committee on Science of House of Representatives changed to Committee on Science and Technology of House of Representatives by House Resolution No. 6, One Hundred Tenth Congress, Jan. 5, 2007. Committee on Science and Technology of House of Representatives changed to Committee on Science, Space, and Technology of House of Representatives by House Resolution No. 5, One Hundred Twelfth Congress, Jan. 5, 2011.

§ 278q. Appropriations; availability

Appropriations to carry out the provisions of this chapter may remain available for obligation

and expenditure for such period or periods as may be specified in the Acts making such appropriations.

(Mar. 3, 1901, ch. 872, §32, formerly §18, as added Pub. L. 92-317, §3(a), June 22, 1972, 86 Stat. 235; amended Pub. L. 95-322, §2(b), July 21, 1978, 92 Stat. 395; Pub. L. 96-461, §10, Oct. 15, 1980, 94 Stat. 2052; renumbered §19, Pub. L. 99-574, §6(a), Oct. 28, 1986, 100 Stat. 3237; renumbered §20, Pub. L. 99-574, §8(a), Oct. 28, 1986, 100 Stat. 3238; renumbered §22, Pub. L. 100-235, §3(2), Jan. 8, 1988, 101 Stat. 1724; renumbered §32, Pub. L. 107-305, §8(a)(1), Nov. 27, 2002, 116 Stat. 2375.)

Editorial Notes

CODIFICATION

Section was formerly classified to section 278h of this title prior to renumbering by Pub. L. 107-305.

Another section 32 of act Mar. 3, 1901, ch. 872, was renumbered section 35 and is set out as a Short Title note under section 271 of this title.

AMENDMENTS

1980—Pub. L. 96-461 substituted “Appropriations” for “(a) Appropriations” and struck out subsec. (b) which authorized appropriations to carry out provisions of this chapter, including the Working Capital Fund referred to in section 278b(a) of this title, but excluding section 278f of this title, of such sums as may be necessary for each of the fiscal years 1979 and 1980.

1978—Pub. L. 95-322 designated existing provisions as subsec. (a) and added subsec. (b).

§ 278r. Collaborative manufacturing research pilot grants

(a) Authority

(1) Establishment

The Director shall establish a pilot program of awards to partnerships among participants described in paragraph (2) for the purposes described in paragraph (3). Awards shall be made on a peer-reviewed, competitive basis.

(2) Participants

Such partnerships shall include at least—

- (A) 1 manufacturing industry partner; and
- (B) 1 nonindustry partner.

(3) Purpose

The purpose of the program under this section is to foster cost-shared collaborations among firms, educational institutions, research institutions, State agencies, and non-profit organizations to encourage the development of innovative, multidisciplinary manufacturing technologies. Partnerships receiving awards under this section shall conduct applied research to develop new manufacturing processes, techniques, or materials that would contribute to improved performance, productivity, and competitiveness of United States manufacturing, and build lasting alliances among collaborators.

(b) Program contribution

Awards under this section shall provide for not more than one-third of the costs of a partnership. Not more than an additional one-third of such costs may be obtained directly or indirectly from other Federal sources.

(c) Applications

Applications for awards under this section shall be submitted in such manner, at such

time, and containing such information as the Director shall require. Such applications shall describe at a minimum—

(1) how each partner will participate in developing and carrying out the research agenda of the partnership;

(2) the research that the grant would fund; and

(3) how the research to be funded with the award would contribute to improved performance, productivity, and competitiveness of the United States manufacturing industry.

(d) Selection criteria

In selecting applications for awards under this section, the Director shall consider at a minimum—

(1) the degree to which projects will have a broad impact on manufacturing;

(2) the novelty and scientific and technical merit of the proposed projects; and

(3) the demonstrated capabilities of the applicants to successfully carry out the proposed research.

(e) Distribution

In selecting applications under this section the Director shall ensure, to the extent practicable, a distribution of overall awards among a variety of manufacturing industry sectors and a range of firm sizes.

(f) Duration

In carrying out this section, the Director shall run a single pilot competition to solicit and make awards. Each award shall be for a 3-year period.

(Mar. 3, 1901, ch. 872, §33, as added Pub. L. 110-69, title III, §3007(2), Aug. 9, 2007, 121 Stat. 591.)

§ 278s. Manufacturing USA

(a) Definitions

In this section:

(1) Agency head

The term “agency head” means the head of any Executive agency (as defined in section 105 of title 5), other than the Department of Defense.

(2) Regional innovation initiative

The term “regional innovation initiative” has the meaning given such term in section 3722(f)(1) of this title.

(b) Establishment of Manufacturing USA Program

(1) In general

The Secretary shall establish within the Institute a program to be known as the “Manufacturing United States of America Program” or the “Manufacturing USA Program” (referred to in this section as the “Program”).

(2) Purposes of Program

The purposes of the Program are—

(A) to improve the competitiveness of United States manufacturing and to increase the production of goods manufactured predominantly within the United States;

(B) to stimulate United States leadership in advanced manufacturing research, innovation, and technology;

(C) to facilitate the transition of innovative technologies into scalable, cost-effective, and high-performing manufacturing capabilities;

(D) to facilitate access by manufacturing enterprises to capital-intensive infrastructure, including high-performance electronics and computing, and the supply chains that enable these technologies;

(E) to accelerate the development of an advanced manufacturing workforce;

(F) to facilitate peer exchange of and the documentation of best practices in addressing advanced manufacturing challenges;

(G) to leverage non-Federal sources of support to promote a stable and sustainable business model without the need for long-term Federal funding;

(H) to create and preserve jobs; and

(I) to contribute to the development of regional innovation initiatives across the United States.

(3) Support

The Secretary, acting through the Director, shall carry out the purposes set forth in paragraph (2) by supporting—

(A) the Manufacturing USA Network established under subsection (b); and

(B) the establishment of Manufacturing USA institutes.

(4) Director

The Secretary shall carry out the Program through the Director.

(c) Establishment of Manufacturing USA Network

(1) In general

As part of the Program, the Secretary shall establish a network of Manufacturing USA institutes.

(2) Designation

The network established under paragraph (1) shall be known as the “Manufacturing United States of America Network” or the “Manufacturing USA Network” (referred to in this section as the “Network”).

(d) Manufacturing USA institutes

(1) In general

For purposes of this section, a Manufacturing USA institute is an institute that—

(A) has been established by a person or group of persons to address challenges in advanced manufacturing and to assist manufacturers in retaining or expanding industrial production and jobs in the United States;

(B) has a predominant focus on a manufacturing process, novel material, enabling technology, supply chain integration methodology, or another relevant aspect of advanced manufacturing, such as nanotechnology applications, advanced ceramics, photonics and optics, composites, biobased and advanced materials, flexible hybrid technologies, tool development for microelectronics, food manufacturing, superconductors, advanced battery technologies, robotics, advanced sensors, quan-

tum information science, supply chain water optimization, aeronautics and advanced materials, and graphene and graphene commercialization;

(C) has the potential—

(i) to improve the competitiveness of United States manufacturing, including key advanced manufacturing technologies such as nanotechnology, advanced ceramics, photonics and optics, composites, biobased and advanced materials, flexible hybrid technologies, tool development for microelectronics, food manufacturing, superconductors, advanced battery technologies, robotics, advanced sensors, quantum information science, supply chain water optimization, aeronautics and advanced materials, and graphene and graphene commercialization;

(ii) to accelerate non-Federal investment in advanced manufacturing production capacity in the United States; or

(iii) to enable the commercial application of new technologies or industry-wide manufacturing processes; and

(D) includes active participation among representatives from multiple industrial entities, research universities, community colleges, and other entities as appropriate, which may include industry-led consortia, career and technical education schools, Federal laboratories, State, local, and Tribal governments, businesses, educational institutions, and nonprofit organizations.

(2) Activities

(A) Required activities

For purposes of this section, a Manufacturing USA institute is also an institute that carries out the following:

(i) Research, development, and demonstration projects, including proof-of-concept development and prototyping, to reduce the cost, time, or risk of commercializing new technologies and improvements in existing technologies, processes, products, and research and development of materials to solve precompetitive industrial problems with economic or national security implications.

(ii) Development and implementation of education, training, and workforce recruitment courses, materials, and programs addressing workforce needs through training and education programs at all appropriate education levels, including programs on applied engineering.

(iii) Development of innovative methodologies and practices for supply chain integration and introduction of new technologies into supply chains, as appropriate.

(iv) Outreach and engagement with small and medium-sized manufacturing enterprises, including women, minority, and veteran owned manufacturing enterprises, in addition to large manufacturing enterprises.

(v) Development of roadmaps or leveraging of existing roadmaps with respect to technology areas being pursued by

that Manufacturing USA institute that take into account the research and development undertaken at other Manufacturing USA institutes and Federal agencies with respect to such areas.

(B) Permissible activities

In addition to the activities set forth under subparagraph (A), a Manufacturing USA institute may carry out such other activities as may be consistent with the purposes set forth under subsection (b)(2).

(3) Additional Manufacturing USA institutes

(A) In general

Except as provided in subparagraph (C), the National Additive Manufacturing Innovation Institute and other manufacturing institutes formally recognized as Manufacturing USA institutes pursuant to Federal law or executive actions, or under pending interagency review for such recognition as of December 16, 2014, shall be considered Manufacturing USA institutes for purposes of this section.

(B) Network participation

Except as provided in subparagraph (C), an institute that is substantially similar to an institute described by paragraphs (1) and (2) but does not meet every element of such description and does not receive financial assistance under subsection (e) may, upon request of the institute, be recognized as a Manufacturing USA institute by the Secretary for purposes of participation in the Network.

(C) Applicability

Effective beginning on December 20, 2019, an institute shall be treated as a Manufacturing USA institute under this section and subject to subsections (b)(2), (d), and (e) in the same manner and to the same extent as such provisions apply to a Manufacturing USA institute described by paragraphs (1) and (2) if such institute—

(i)(I) is, as of December 20, 2019, considered a Manufacturing USA institute under subparagraph (A) or recognized as a Manufacturing USA institute under subparagraph (B); and

(II) as of December 20, 2019, receives Federal financial assistance under subsection (e) or otherwise consistent with the purposes of this section;

(ii) is under pending agency review for such recognition as of December 20, 2019; or

(iii) is currently funded by the Department of Energy.

(e) Financial assistance to establish and support Manufacturing USA institutes

(1) Financial assistance authorized

Under the Program, the Secretary and the Secretary of Energy shall, and every other agency head may, award financial assistance to a person or group of persons to assist the person or group of persons in planning, establishing, or supporting a Manufacturing USA institute.

(2) Period and renewal of awards

(A) Initial periods

An award of financial assistance under paragraph (1) shall be awarded for an initial period of not less than 5 years and not more than 7 years.

(B) Renewal of awards

(i) Renewal authorized

An award of financial assistance under paragraph (1) may be renewed for additional periods, with each period not to exceed the duration of the initial period of the award, subject to a rigorous merit review.

(ii) Consideration of performance standards

In carrying out a rigorous merit review under clause (i) for renewal of an award under such clause for a Manufacturing USA institute, an agency head shall consider the extent to which the institute has made progress in meeting the standards of performance established pursuant to paragraph (5)(C).

(iii) Initial failure to meet performance standards

If, pursuant to a rigorous merit review under clause (i) for renewal of an award under such clause for a Manufacturing USA institute, an agency head finds that the institute does not meet the standards for performance established pursuant to paragraph (5)(C), the agency head shall—

(I) notify the institute of any deficiencies in the performance of the institute; and

(II) provide the institute one year to remedy such deficiencies.

(iv) Further failure to meet performance standards

If a Manufacturing USA institute fails to remedy a deficiency identified or to show significant improvement in performance during the 1-year period set forth under clause (iii)(II)—

(I) the institute shall not be eligible for¹ renewed award under clause (i); and

(II) the agency head that conducted the review for renewal shall notify the institute of such ineligibility.

(v) Continuation of existing Manufacturing USA institutes

Notwithstanding clauses (i) through (iv), a Manufacturing USA institute already in existence or undergoing a renewal process prior to December 1, 2019—

(I) may continue to receive support for the duration of the original funding award beginning on the date of establishment of that institute; and

(II) shall be eligible for renewal of that funding pursuant to clause (i).

(3) Application for financial assistance

(A) In general

A person or group of persons seeking financial assistance under paragraph (1) shall sub-

¹ So in original. Probably should be followed by “a”.

mit to an agency head an application therefor at such time, in such manner, and containing such information as the agency head may require.

(B) Requirements

An application submitted under subparagraph (A) for an institute shall, at a minimum include the following:

- (i) A description of the specific sources and amounts of non-Federal financial support for the institute on the date financial assistance is sought.
- (ii) A description of the anticipated sources and amounts of non-Federal financial support during the period for which the institute could be eligible for continued Federal financial assistance under this section.

(4) Selection

(A) Competitive, merit review

In awarding financial assistance under paragraph (1), an agency head shall—

- (i) use a competitive, merit review process that includes review by a diverse group of individuals with relevant expertise from both the private and public sectors; and
- (ii) ensure that the technology focus of a Manufacturing USA institute does not substantially duplicate the technology focus of any other Manufacturing USA institute.

(B) Participation in process

(i) Prohibition on participation by political appointees

The review required by subparagraph (A)(i) may not include a review by a group of individuals that includes a political appointee.

(ii) Conflict of interest policies

Each agency head shall implement a conflict of interest policy that—

- (I) ensures public transparency and accountability in the process used under subparagraph (A)(i); and
- (II) requires full disclosure of any real or potential conflicts of interest on the parts of individuals that participate in the process used under subparagraph (A)(i).

(iii) Definition of political appointee

For purposes of this subparagraph, the term “political appointee” has the meaning given such term in section 714(h) of title 38.

(C) Considerations

In selecting a person or group of persons who submitted an application to an agency head under paragraph (3) for an award of financial assistance under paragraph (1) for a Manufacturing USA institute, the agency head shall consider, at a minimum, the following:

- (i) The potential of the Manufacturing USA institute to advance domestic manufacturing and the likelihood of economic impact, including the creation or preservation of jobs, in the predominant focus areas of the institute.

- (ii) The commitment of continued financial support, advice, participation, and other contributions from non-Federal sources, to provide leverage and resources to promote a stable and sustainable business model.

- (iii) Whether the financial support provided to the Manufacturing USA institute from non-Federal sources exceeds the requested Federal financial assistance.

- (iv) How the Manufacturing USA institute will increase the non-Federal investment in advanced manufacturing research in the United States.

- (v) How the Manufacturing USA institute will engage with small and medium-sized manufacturing enterprises to improve the capacity of such enterprises to commercialize new processes and technologies and to improve the domestic supply chain.

- (vi) How the Manufacturing USA institute will carry out educational and workforce activities that meet industrial needs related to the predominant focus areas of the institute.

- (vii) How the Manufacturing USA institute will advance economic competitiveness and generate substantial benefits to the Nation that extend beyond the direct return to participants in the Program.

- (viii) Whether the predominant focus of the Manufacturing USA institute is a manufacturing process, novel material, enabling technology, supply chain integration methodology, or other relevant aspect of advanced manufacturing that has not already been commercialized, marketed, distributed, or sold by another entity.

- (ix) How the Manufacturing USA institute will strengthen and leverage the industrial, research, entrepreneurship, and other assets of a region.

- (x) How the Manufacturing USA institute will encourage the education and training of veterans and individuals with disabilities.

(5) Performance measurement, transparency, and accountability

For each award of financial assistance under paragraph (1) by an agency head, the agency head shall—

- (A) develop metrics to assess the effectiveness of the activities funded in making progress toward the purposes of the Program set forth under subsection (b)(2), including the effectiveness of Manufacturing USA institutes in advancing technology readiness levels or manufacturing readiness levels;

- (B) establish standards for the performance of Manufacturing USA institutes that are based on the metrics developed under subparagraph (A); and

- (C) for each Manufacturing USA institute supported by the award, 5 years after the initial award and every 5 years thereafter until Federal financial assistance under this subsection is discontinued, conduct an assessment of the institute to confirm whether the performance of the institute is meeting the

standards for performance established under subparagraph (B).

(6) Collaboration

In awarding financial assistance under paragraph (1), an agency head, in coordination with the National Program Office, as the agency head considers appropriate, may collaborate with Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing, including, as the agency head considers appropriate, the Department of Agriculture, the Department of Defense, the Department of Education, the Department of Energy, the Department of Labor, the Food and Drug Administration, the National Aeronautics and Space Administration, the National Institutes of Health, and the National Science Foundation.

(7) Matching funds and preferences

(A) In general

Except as provided in subparagraph (B), an agency head may not, with respect to a Manufacturing USA institute, award financial assistance under paragraph (1) or renew an award of financial assistance under paragraph (2) unless the agency head determines that non-Federal funding comprises 50 percent or more of the total amount of funding made available for the operation and support of the institute.

(B) Waivers

An agency head awarding financial assistance under paragraph (1) with respect to a Manufacturing USA institute may waive the requirements of subparagraph (A) in the case of satellite centers, large capital facilities, equipment purchases, workforce development, or general operations.

(8) Diversity preferences

In awarding financial assistance under paragraph (1) for planning or establishing a Manufacturing USA institute, an agency head shall give special consideration to Manufacturing USA institutes that—

- (A) contribute to the geographic diversity of the Manufacturing USA Program;
- (B) are located in an area with a low per capita income;
- (C) are located in an area with a high proportion of socially disadvantaged residents; or
- (D) are located in small and rural communities.

(f) Authority to award financial assistance for construction of test beds and specialized facilities

(1) In general

The Secretary may, acting through the Director, award financial assistance for the construction of test beds and specialized facilities by Manufacturing USA institutes established or supported under subsection (e) as the Secretary considers appropriate to carry out the purposes of the Program.

(2) Requirements

The Secretary shall exercise authority under paragraph (1) in a manner and with require-

ments consistent with paragraphs (3) through (8) of subsection (e).

(3) Priority

The Secretary shall establish preferences in selection criteria for proposals for financial assistance under this subsection from Manufacturing USA institutes that integrate as active members one or more covered entities as described in section 18971 of title 42.

(g) Grant program for public service activities for Manufacturing USA institutes without Federal funding

The Secretary may award a grant on a competitive basis to a Manufacturing USA institute that is not receiving financial assistance under subsection (e) to carry out workforce development, outreach to small- and medium-sized manufacturers, and other activities that—

- (1) are determined by the Secretary to be in the national interest; and
- (2) are unlikely to receive private sector financial support.

(h) Authorization of appropriations

(1) NIST Industrial Technical Services account

To the extent provided for in advance by appropriations Acts, the Secretary may use amounts appropriated to the Industrial Technical Services account to carry out this section as follows:

(A) For each of the fiscal years 2015 through 2019, an amount not to exceed \$5,000,000.

(B) For each of fiscal years 2020 through 2030, such amounts as may be necessary to carry out this section.

(2) Department of Energy

There are authorized to be appropriated to the Secretary of Energy for the provision of financial assistance under subsection (e) by the Department of Energy amounts as follows:

(A) \$70,000,000 for each of fiscal years 2020, 2021, and 2022.

(B) \$84,000,000 for each of fiscal years 2023 and 2024.

(i) National Program Office

(1) Establishment

The Secretary shall establish, within the Institute, the National Office of the Manufacturing USA Network (referred to in this section as the “National Program Office”), which shall oversee and carry out the Program.

(2) Functions

The functions of the National Program Office are—

(A) to oversee the planning, management, and coordination of the Program;

(B) to coordinate with and, as appropriate, enter into memorandums of understanding with Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing, including the Department of Agriculture, the Department of Defense, the Department of Education, the Department of Energy, the Department of Labor, the Food and Drug Administration, the National Aeronautics and Space Admin-

istration, the National Institutes of Health, and the National Science Foundation, to carry out the purposes set forth under subsection (b)(2);

(C) to develop, not later than December 16, 2015, and update not less frequently than once every 3 years thereafter, a strategic plan to guide the Program, including a strategy for retaining domestic public benefits from Manufacturing USA institutes once Federal funding has been discontinued;

(D) to establish such procedures, processes, and criteria as may be necessary and appropriate to maximize cooperation and coordinate the activities of the Program with programs and activities of other Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing;

(E) to establish a clearinghouse of public information related to the activities of the Program;

(F) to act as a convener of the Network;

(G) to work with Federal agencies that are not sponsoring or supporting a Manufacturing USA institute to explore and develop options for sponsoring or supporting a Manufacturing USA institute;

(H) to work with Federal agencies that are sponsoring or supporting a Manufacturing USA institute to develop and implement network-wide performance goals with measurable targets and timelines;

(I) to help develop pilot programs that may be implemented by the Manufacturing USA institutes to address specific purposes of the Program, including to accelerate technology transfer to the private sector and to develop entrepreneurship programs;

(J) to provide support services to promote workforce development activities, including the development of industry credentials;

(K) to identify and disseminate best practices for workforce education and training across the Network and further enhance collaboration among Manufacturing USA institutes in developing and implementing such practices;

(L) to collaborate with the Department of Labor, the Department of Education, industry, career and technical education schools, local community colleges, universities, and labor organizations to provide input, as appropriate, for the development of national certifications for advanced manufacturing workforce skills in the technology areas of the Manufacturing USA institutes; and

(M) to coordinate with Manufacturing USA institutes to develop best practices for the membership agreements and coordination of similar project solicitations.

(3) Recommendations

In developing and updating the strategic plan under paragraph (2)(C), the Secretary shall solicit recommendations and advice from a wide range of stakeholders, including industry, small and medium-sized manufacturing enterprises, research universities, community colleges, State, Tribal, and local governments, and other relevant organizations and institutions on an ongoing basis.

(4) Report to Congress

Upon completion, the Secretary shall transmit the strategic plan required under paragraph (2)(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.

(5) Hollings Manufacturing Extension Partnership

(A) In general

The Secretary shall ensure that the National Program Office leverages the capabilities of the Hollings Manufacturing Extension Partnership into Program planning to ensure—

(i) significant outreach to, participation of, and engagement of small- and medium-sized manufacturers in Manufacturing USA institutes across the entirety of the manufacturing supply chain; and

(ii) that the results of the Program, including technologies developed by the Program, reach small- and medium-sized manufacturers and that such entities have access to technical assistance, as appropriate, in deploying those technologies.

(B) Liaisons

The Secretary may provide financial assistance to a manufacturing extension center established as part of the Hollings Manufacturing Extension Partnership to support the purposes of the Program by providing services in one or more of the following areas:

(i) Support services for small- and medium-sized manufacturers, that many include the designation of a liaison.

(ii) Assistance with workforce development.

(iii) Technology transfer for small and medium-sized manufacturers.

(iv) Such other areas as the Secretary determines appropriate to support the purposes of the Program.

(6) Detailees

Any Federal Government employee may be detailed to the National Program Office without reimbursement. Such detail shall be without interruption or loss of civil service status or privilege.

(7) Council for coordination of institutes

(A) Council

The National Program Office shall establish or designate a council of heads of any Manufacturing USA institute receiving Federal funding at any time to foster collaboration between Manufacturing USA institutes.

(B) Meetings

The council established or designated pursuant to subparagraph (A) shall meet not less frequently than twice each year.

(C) Duties of the council

The council established pursuant to subparagraph (A) shall assist the National Program Office in carrying out the functions of the National Program Office under paragraph (2).

(j) Reporting and auditing**(1) Annual reports to the Secretary****(A) In general**

Not less frequently than once each year, each agency head that is providing financial assistance under subsection (e) shall—

(i) require each recipient of such financial assistance submit to the agency head a report that describes the finances and performance of the Manufacturing USA institute with respect to which the financial assistance is awarded; and

(ii) submit to the Secretary each report received by the agency head under clause (i).

(B) Elements

Each report submitted under subparagraph (A) shall include:

(i) an accounting of expenditures of amounts awarded to the recipient under subsection (e); and

(ii) consistent with the standards for performance established under subsection (e)(5)(B), a description of the performance of the Manufacturing USA institute with respect to—

(I) its goals, plans, financial support, and accomplishments; and

(II) how the Manufacturing USA institute has furthered the purposes set forth under subsection (b)(2).

(2) Annual reports to Congress**(A) In general**

Not less frequently than once each year until December 31, 2030, the Secretary shall submit a report to Congress that describes the performance of the Program during the most recent 1-year period.

(B) Elements

Each report submitted under subparagraph (A) shall include, for the period covered by the report—

(i) a summary and assessment of the reports received by the Secretary under paragraph (1);

(ii) an accounting of the funds expended by the Secretary under the Program, including any waivers made under subsection (e)(7)(B);

(iii) an assessment of the participation in, and contributions to, the Network by any Manufacturing USA institutes not receiving financial assistance under subsection (e); and

(iv) an assessment of the Program with respect to meeting the purposes set forth under subsection (b)(2).

(3) Assessments by Comptroller General of the United States**(A) Assessments**

Not less frequently than once every 3 years, the Comptroller General of the United States shall submit to Congress an assessment of the operation of the Program during the most recent 3-year period, including an assessment of the progress made towards achieving the goals specified in the national

strategic plan for advanced manufacturing required under section 6622(b)(7) of title 42.

(B) Elements

Each assessment submitted under subparagraph (A) shall include, for the period covered by the report—

(i) a review of the management, coordination, and industry utility of the Program;

(ii) an assessment of the extent to which the Program has furthered the purposes set forth under subsection (b)(2);

(iii) such recommendations for legislative and administrative action as the Comptroller General considers appropriate to improve the Program; and

(iv) an assessment as to whether any prior recommendations for improvement made by the Comptroller General have been implemented or adopted.

(C) Final assessment

No later than December 31, 2030, the Comptroller General shall submit to Congress a final report regarding the overall success of the Program.

(k) Additional authorities**(1) Appointment of personnel and contracts**

The Secretary may appoint such personnel and enter into such contracts, financial assistance agreements, and other agreements as the Secretary considers necessary or appropriate to carry out the Program, including support for research and development activities involving a Manufacturing USA institute.

(2) Transfer of funds

Of amounts available under the authority provided by subsection (g), the Secretary may transfer to other Federal agencies such sums as the Secretary considers necessary or appropriate to carry out the Program. No funds so transferred may be used to reimburse or otherwise pay for the costs of financial assistance incurred or commitments of financial assistance made prior to December 16, 2014.

(3) Authority of other agencies

In the event that the Secretary exercises the authority to transfer funds to another agency under paragraph (2), such agency may accept such funds to award and administer, under the same conditions and constraints applicable to the Secretary, all aspects of financial assistance awards under this section.

(4) Use of resources

In furtherance of the purposes of the Program, the Secretary may use, with the consent of a covered entity and with or without reimbursement, the land, services, equipment, personnel, and facilities of such covered entity.

(5) Acceptance of resources

In addition to amounts appropriated to carry out the Program, the Secretary may accept funds, services, equipment, personnel, and facilities from any covered entity to carry out the Program, subject to the same conditions and constraints otherwise applicable to the Secretary under this section and such funds

may only be obligated to the extent provided for in advance by appropriations Acts.

(6) Covered entities

For purposes of this subsection, a covered entity is any Federal department, Federal agency, instrumentality of the United States, State, local government, Tribal government, territory, or possession of the United States, or of any political subdivision thereof, or international organization, or any public or private entity or individual.

(7) Collaborations with other agencies

The Secretary shall collaborate with Federal agencies whose missions contribute to, or are affected by, advanced manufacturing to identify and leverage existing resources at such Federal agencies to assist Manufacturing USA institutes in carrying out the purposes of the Program set forth under subsection (b)(2). Such existing resources may include programs—

(A) at the Department of Labor relating to labor and apprenticeships;

(B) at the Economic Development Administration relating to regional innovation, such as the Regional Innovation Strategies program;

(C) at the Department of Education relating to workforce development, education, training, and retraining;

(D) at the Department of Defense relating to procurement and other authorities of the Department of Defense;

(E) at the Food and Drug Administration relating to biopharmaceutical manufacturing;

(F) at the National Science Foundation, including the Advanced Technological Education program;

(G) at the National Aeronautics and Space Administration relating to procurement, workforce development, education, training, and retraining;

(H) at the Department of Energy relating to development of clean energy technologies and other authorities of the Department of Energy;

(I) at the Department of Agriculture relating to outreach to rural communities;

(J) additional programs that the Secretary determines are appropriate to support the activities of existing Manufacturing USA institutes; and²

(K) additional programs that the Secretary determines are appropriate to support the activities of existing Manufacturing USA institutes.²

(l) Patents

Chapter 18 of title 35 shall apply to any funding agreement (as defined in section 201 of that title) awarded to new or existing Manufacturing USA institutes with respect to which financial assistance is awarded under subsection (e).

(m) References to prior names and terminology

Any reference in law, regulation, map, document, paper, or other record of the United

States to the “Network for Manufacturing Innovation Program”, the “Network for Manufacturing Innovation”, “National Office of the Network for Manufacturing Innovation Program”, or a “center for manufacturing innovation” shall be considered to be a reference to the Manufacturing USA Program, the Manufacturing USA Network, the National Office of the Manufacturing USA Network, or a Manufacturing USA institute, respectively.

(Mar. 3, 1901, ch. 872, § 34, as added Pub. L. 113–235, div. B, title VII, § 703(2), Dec. 16, 2014, 128 Stat. 2221; amended Pub. L. 116–92, div. A, title XVII, § 1741(a), Dec. 20, 2019, 133 Stat. 1826; Pub. L. 117–167, div. B, title II, §§ 10261, 10263(b)–(d), Aug. 9, 2022, 136 Stat. 1503, 1505, 1506; Pub. L. 117–263, div. E, title LIX, § 5911, Dec. 23, 2022, 136 Stat. 3442.)

Editorial Notes

PRIOR PROVISIONS

A prior section 34 of act Mar. 3, 1901, ch. 872, was renumbered section 35 and is set out as a Short Title note under section 271 of this title.

AMENDMENTS

2022—Subsec. (e)(8). Pub. L. 117–167, § 10261, added par. (8).

Subsecs. (f) to (h). Pub. L. 117–263, § 5911, added subsec. (f) and redesignated former subsecs. (f) and (g) as (g) and (h), respectively. Former subsec. (h) redesignated (i).

Subsec. (h)(2)(C). Pub. L. 117–167, § 10263(c), inserted “, including a strategy for retaining domestic public benefits from Manufacturing USA institutes once Federal funding has been discontinued” after “Program”.

Subsec. (h)(2)(J). Pub. L. 117–167, § 10263(d), inserted “, including the development of industry credentials” after “activities”.

Subsec. (h)(7). Pub. L. 117–167, § 10263(b), added par. (7).

Subsecs. (i) to (m). Pub. L. 117–263, § 5911(1), redesignated subsecs. (h) to (l) as (i) to (m), respectively.

2019—Pub. L. 116–92 amended section generally. Prior to amendment, section related to Network for Manufacturing Innovation.

Statutory Notes and Related Subsidiaries

COORDINATION WITH HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP CENTERS

Pub. L. 116–283, div. H, title XCIV, § 9415, Jan. 1, 2021, 134 Stat. 4822, provided that: “Notwithstanding section 34(d)(2)(A)(iv) of the National Institute for [of] Standards and Technology Act (15 U.S.C. 278s(d)(2)(A)(iv)), each Manufacturing USA Institute (established under subsection (d) of such section) shall, as appropriate, contract with a Hollings Manufacturing Extension Partnership Center (established under section 25 of such Act [15 U.S.C. 278k]) in each State in which such Institute provides services, either directly or through another such Center, to provide defense industrial base-related outreach, technical assistance, workforce development, and technology transfer assistance to small and medium-sized manufacturers. No Center shall charge in excess of its standard rate for such services. Funds received by a Center through such a contract shall not constitute financial assistance under section 25(e) of such Act.”

EXPANSION OF MANUFACTURING USA NETWORK

Pub. L. 116–92, div. A, title XVII, § 1741(b), Dec. 20, 2019, 133 Stat. 1837, provided that: “Subject to the availability of appropriations, the Secretary of Commerce shall take such actions as may be necessary to increase

²So in original. Subpars. (J) and (K) are identical and the words “additional programs” do not follow from introductory provisions.

the number of Manufacturing USA institutes that participate in the Manufacturing USA Network.”

FINDINGS

Pub. L. 113-235, div. B, title VII, § 702, Dec. 16, 2014, 128 Stat. 2220, provided that: “Congress finds the following:

“(1) In 2012, manufacturers contributed \$2.03 trillion to the economy, or $\frac{1}{5}$ of United States Gross Domestic Product.

“(2) For every \$1.00 spent in manufacturing, another \$1.32 is added to the economy, the highest multiplier effect of any economic sector.

“(3) Manufacturing supports an estimated 17,400,000 jobs in the United States—about 1 in 6 private-sector jobs. More than 12,000,000 Americans (or 9 percent of the workforce) are employed directly in manufacturing.

“(4) In 2012, the average manufacturing worker in the United States earned \$77,505 annually, including pay and benefits. The average worker in all industries earned \$62,063.

“(5) Taken alone, manufacturing in the United States would be the 8th largest economy in the world.

“(6) Manufacturers in the United States perform two-thirds of all private-sector research and development in the United States, driving more innovation than any other sector.”

§ 278t. Advanced communications research activities

(a) Advanced communications research

(1) In general

The Director, in consultation with the Assistant Secretary for Communications and Information, the Director of the National Science Foundation, and heads of other Federal agencies, as appropriate, shall carry out a program of measurement research for advanced communications technologies.

(2) Research areas

Research areas may include—

(A) radio frequency emissions and interference, including technologies and techniques to mitigate such emissions and interference;

(B) advanced antenna arrays and artificial intelligence systems capable of operating advanced antenna arrays;

(C) artificial intelligence systems to enable internet of things networks, immersive technology, and other advanced communications technologies;

(D) network sensing and monitoring technologies;

(E) technologies to enable spectrum flexibility and agility;

(F) optical and quantum communications technologies;

(G) security of advanced communications systems;

(H) public safety communications;

(I) resilient internet of things applications for advanced manufacturing; and

(J) other research areas determined necessary by the Director.

(3) Testbeds

In coordination with the Assistant Secretary for Communications and Information, the private sector, and other Federal agencies as appropriate, the Director may develop and manage testbeds for research and development of

advanced communications technologies, avoiding duplication of existing testbeds run by other agencies or the private sector.

(4) Outreach

In carrying out the activities under this subsection, the Director shall seek input from other Federal agencies and from private sector stakeholders, on an ongoing basis, to help inform research and development priorities, including through workshops and other multi-stakeholder activities.

(5) Technical roadmaps

In carrying out the activities under this subsection, the Director shall convene industry, institutions of higher education, nonprofit organizations, Federal laboratories, and other Federal agencies engaged in advanced communications research and development to develop, and periodically update, coordinated technical roadmaps for advanced communications research in priority areas, such as those described in paragraph (2).

(b) National Advanced Spectrum and Communications Test Network

(1) In general

The Director, in coordination with the Administrator of the National Telecommunications and Information Administration and heads of other Federal agencies, as appropriate, shall operate a national network of government, academic, and commercial test capabilities and facilities to be known as the National Advanced Spectrum and Communications Test Network (referred to in this section as “NASCTN”).

(2) Purposes

NASCTN shall be for the purposes of facilitating and coordinating the use of intellectual capacity, modeling and simulation, laboratory facilities, and test facilities to meet national spectrum interests and challenges, including—

(A) measurements and analyses of electromagnetic propagation, radio systems characteristics, and operating techniques affecting the utilization of the electromagnetic spectrum in coordination with specialized, related research and analysis performed by other Federal agencies in their areas of responsibility;

(B) conducting research and analysis in the general field of telecommunications sciences in support of the Institute’s mission and in support of other Government agencies;

(C) developing methodologies for testing, measuring, and setting guidelines for interference;

(D) conducting interference tests to better understand the impact of current and proposed Federal and commercial spectrum activities;

(E) conducting research and testing to improve spectrum interference tolerance, flexibility, agility, and interference mitigation methods; and

(F) other activities as determined necessary by the Director.

(Mar. 3, 1901, ch. 872, § 35, as added Pub. L. 117-167, div. B, title II, § 10230(2), Aug. 9, 2022, 136 Stat. 1482.)

§ 278u. Xylazine detection and analysis**(a) Definitions**

In this section:

(1) Director

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

(2) Federal laboratory

The term “Federal laboratory” has the meaning given such term in section 3703 of this title.

(3) Institute

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

(4) Institution of higher education

The term “institution of higher education” has the meaning given such term in section 1001 of title 20.

(5) Nonprofit organization

The term “nonprofit organization” means an organization described in section 501(c)(3) of title 26 and exempt from tax under section 501(a) of such title.

(6) Xylazine

The term “xylazine” means the nonopioid tranquilizer methyl benzene compound frequently used in veterinary medicine as an emetic and sedative with analgesic and muscle relaxant properties.

(b) In general

The Director shall—

(1) support intramural basic measurement science and research of the Institute to advance—

(A) analytical methods to identify, understand, differentiate, and categorize substances containing xylazine, novel synthetic opioids, or other new psychoactive substances;

(B) measurement technologies to shorten analysis timelines and enhance narcotic and opioid detection and analysis capabilities;

(C) new data tools, techniques, and processes to identify and publicly disclose relevant information concerning substances containing xylazine, novel synthetic opioids, or other new psychoactive substances; and

(D) such other areas as the Director determines to be critical to the development and deployment of technologies to measure and analyze the presence of xylazine, novel synthetic opioids, and other new psychoactive substances;

(2) support activities to inform and expand the development of near-real time spectrometry capabilities regarding xylazine, novel synthetic opioids, and other new psychoactive substances;

(3) convene and consult with organizations engaged in the analysis of new psychoactive substances to develop coordinated strategies and voluntary best practices for the safe handling, transport, data-sharing, and analysis of substances containing xylazine, novel synthetic opioids, or other new psychoactive substances, including—

(A) the Drug Enforcement Administration;
(B) the Centers for Disease Control and Prevention;
(C) the National Institute on Drug Abuse;
(D) Federal laboratories;
(E) States and territories;
(F) State fusion centers;
(G) the private sector;
(H) intergovernmental organizations;
(I) institutions of higher education,¹ and
(J) nonprofit organizations;

(4) establish or expand collaborative partnerships or consortia with other government agencies and persons engaged in related research and development, such as institutions of higher education, Federal laboratories, public health agencies, intergovernmental organizations, and the private sector, to enhance narcotic and opioid detection and analysis capabilities regarding xylazine, novel synthetic opioids, and other new psychoactive substances; and

(5) encourage graduate and post-graduate research to include detection and identification of xylazine and other new psychoactive substances in relevant course studies when practicable.

(c) Controls

In carrying out activities under this section, the Director shall ensure proper security controls are implemented to protect sensitive information, as the Director considers appropriate and consistent with applicable provisions of law.

(d) Report

Not later than 1 year after December 19, 2023, the Director shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the implementation of this section. Such report may include recommendations for legislative action to improve the ability of the Director to carry out this section.

(Pub. L. 118–23, § 2, Dec. 19, 2023, 137 Stat. 125.)

Editorial Notes**CODIFICATION**

Section was enacted as part of the Testing, Rapid Analysis, and Narcotic Quality Research Act of 2023, also known as the TRANQ Research Act of 2023, and not as part of the National Institute of Standards and Technology Act which comprises this chapter.

§ 279. Absence of Director

In the case of the absence of the Director of the National Institute of Standards and Technology the Secretary of Commerce may designate some officer of said Institute to perform the duties of the director during his absence.

(Mar. 4, 1911, ch. 237, § 1, 36 Stat. 1231; Mar. 4, 1913, ch. 141, § 1, 37 Stat. 736; Pub. L. 100–418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

Editorial Notes**CODIFICATION**

Section was not enacted as part of the National Institute of Standards and Technology Act which comprises this chapter.

¹ So in original. The comma probably should be a semicolon.

AMENDMENTS

1988—Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “Bureau of Standards” and “Institute” for “bureau”.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Act Mar. 4, 1913, substituted “Secretary of Commerce” for “Secretary of Commerce and Labor”.

§§ 280, 281. Repealed. Pub. L. 100-418, title V, § 5113, Aug. 23, 1988, 102 Stat. 1432

Section 280, acts July 16, 1914, ch. 141, § 1, 38 Stat. 502; 1978 Reorg. Plan No. 2, § 102, 43 F.R. 36037, 92 Stat. 3783, related to promotion of apprentices in National Bureau of Standards.

Section 281, acts Mar. 4, 1913, ch. 150, § 1, 37 Stat. 945; 1967 Reorg. Plan No. 3, § 401, eff. Aug. 11, 1967, 32 F.R. 11669, 81 Stat. 948; Dec. 24, 1973, Pub. L. 93-198, title IV, § 421, title VII, § 711, 87 Stat. 789, 818, related to testing of building and other structural materials for District of Columbia.

§ 281a. Structural failures

The National Institute of Standards and Technology, on its own initiative but only after consultation with local authorities, may initiate and conduct investigations to determine the causes of structural failures in structures which are used or occupied by the general public. No part of any report resulting from such investigation, or from an investigation under the National Construction Safety Team Act [15 U.S.C. 7301 et seq.], shall be admitted as evidence or used in any suit or action for damages arising out of any matter mentioned in such report.

(Pub. L. 99-73, § 7, July 29, 1985, 99 Stat. 173; Pub. L. 100-418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433; Pub. L. 107-231, § 13, Oct. 1, 2002, 116 Stat. 1476.)

Editorial Notes

REFERENCES IN TEXT

The National Construction Safety Team Act, referred to in text, is Pub. L. 107-231, Oct. 1, 2002, 116 Stat. 1471, which is classified generally to chapter 99 [§ 7301 et seq.] of this title. For complete classification of this Act to the Code, see Short Title note set out under section 7301 of this title and Tables.

CODIFICATION

Section was not enacted as part of the National Institute of Standards and Technology Act which comprises this chapter.

AMENDMENTS

2002—Pub. L. 107-231 inserted “, or from an investigation under the National Construction Safety Team Act,” after “from such investigation”.

1988—Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “National Bureau of Standards”.

§ 282. Repealed. Pub. L. 100-418, title V, § 5113, Aug. 23, 1988, 102 Stat. 1432

Section, act May 14, 1930, ch. 275, § 1, 46 Stat. 327, related to establishment and purpose of a national hydraulic laboratory and studies of Federal and State projects related thereto.

§ 282a. Assessment of emerging technologies requiring research in metrology

The Board of Assessment of the National Institute of Standards and Technology shall include, as part of its annual review, an assessment of emerging technologies which are expected to require research in metrology to keep the Institute abreast of its mission, including process and quality control, engineering databases, advanced materials, electronics and fiber optics, bioprocess engineering, and advanced computing concepts. Such review shall include estimates of the cost of the required effort, required staffing levels, appropriate interaction with industry, including technology transfer, and the period over which the research will be required.

(Pub. L. 100-418, title V, § 5163(a), Aug. 23, 1988, 102 Stat. 1450.)

Editorial Notes

CODIFICATION

Section is comprised of section 5163(a) of Pub. L. 100-418. Section 5163(b)-(d) of Pub. L. 100-418 enacted provisions set out as a note under section 272 of this title, amended section 3710 of this title, and enacted section 1533 of this title, respectively.

Section was not enacted as part of the National Institute of Standards and Technology Act which comprises this chapter.

PRIOR PROVISIONS

A prior section 282a, Pub. L. 99-574, § 7, Oct. 28, 1986, 100 Stat. 3237, consisted of provisions substantially identical to this section.

§ 283. Repealed. Pub. L. 89-554, § 8(a), Sept. 6, 1966, 80 Stat. 655, 656

Section, acts July 20, 1949, ch. 354, title III, § 301, 63 Stat. 468; Sept. 6, 1950, ch. 896, ch. III, title III, § 301, 64 Stat. 628, related to appointment of personnel observing radio propagation phenomena in Arctic Region.

§ 284. Omitted

Editorial Notes

CODIFICATION

Section, acts Oct. 22, 1951, ch. 533, title III, § 301, 65 Stat. 593; Sept. 6, 1950, ch. 896, ch. III, title III, § 301, 64 Stat. 628; July 20, 1949, ch. 354, title III, § 301, 63 Stat. 468, which related to transfer of materials, etc., to Bureau of ionosphere observation by Departments of the Army, Navy, and Air Force, was from the Department of Commerce Appropriation Act, 1952, and has not been repeated in subsequent appropriation acts.

§§ 285, 286. Repealed. Pub. L. 85-890, § 3, Sept. 2, 1958, 72 Stat. 1712

Section 285, act July 21, 1950, ch. 485, § 1, 64 Stat. 370, related to functions and activities of National Bureau of Standards for which funds should be available. See section 278e of this title.

Section 286, act July 21, 1950, ch. 485, § 2, 64 Stat. 371, related to construction and improvement of buildings and facilities. See section 278d of this title.

CHAPTER 7A—STANDARD REFERENCE DATA PROGRAM

Sec.	
290.	Congressional declaration of policy.
290a.	Definitions.
290b.	Collection, compilation, critical evaluation, publication and dissemination of standard reference data.