

**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.)

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, as amended, 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.”

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 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, 272, 278l, 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, § 34, formerly § 23, as added Jan. 8, 1988, Pub. L. 100-235, § 3(3), 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; re-

numbered § 34, Pub. L. 110-69, title III, § 3007(1), Aug. 9, 2007, 121 Stat. 590, 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 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 compare standards used in scientific investigations, engineering, manufacturing, commerce, industry, and educational institutions with the standards adopted or recognized by the Federal Government 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 contracts, including cooperative research and development arrangements, and grants and cooperative agreements, 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, structures, 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 Federal, State, and local technical standards activities and conformity assessment activities, 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) of this section, 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 dona-

tions, 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 spectra 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) 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;

(16) 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;

(17) 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;

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

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

² See References in Text note below.

(19) operate national user facilities;

(20) 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;

(21) 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

(22) 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, 278l, and 278n 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.

(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.)

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".

AMENDMENTS

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.

ENHANCEMENT OF SCIENCE AND MATHEMATICS PROGRAMS

Pub. L. 105-309, §6, Oct. 30, 1998, 112 Stat. 2936, 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.—

"(1) IN GENERAL.—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.

"(2) REPORTS.—

"(A) IN GENERAL.—Not later than 1 year after the date of the enactment of this Act [Oct. 30, 1998], and annually thereafter, the Director of the National Institute of Standards and Technology shall prepare and submit to the President a report. The President shall submit the report to Congress at the same time as the President submits a budget request to Congress under section 1105(a) of title 31, United States Code.

"(B) CONTENTS OF REPORT.—The report prepared by the Director under this paragraph shall describe any donations of educationally useful Federal equipment to schools made during the period covered by the report."

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.

§ 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.)

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.)

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 here-in 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.)

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.)

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.)

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 Di-

rector 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.

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. Appointment of officers and employees

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.

(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.)

AMENDMENTS

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

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.

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 eval-

uated 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.)

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.)

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.)

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”.

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.”

§ 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, title III, §312, 47 Stat. 410; Aug. 3, 1956, ch. 906, §1, 70 Stat. 959.)

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.

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.

¹ See References in Text note below.

(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.)

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 15 members appointed by the Director, at least 10 of whom shall be from United States industry. The Director shall appoint as original members of the Committee any final members of the National Bureau of Standards 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 Insti-

tute, including the Program established under section 278n¹ of this title, 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. 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.

(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.)

REFERENCES IN TEXT

Section 278n of this title, referred to in subsec. (h)(1), was repealed and a new section 278n enacted by Pub. L. 110-69, title III, §3012(a), (b), Aug. 9, 2007, 121 Stat. 593, and, as so enacted, section 278n no longer relates to the Advanced Technology Program, to which the term "Program" referred in this chapter.

AMENDMENTS

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".

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.

¹ See References in Text note below.

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.)

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)".

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.)

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.)

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”.

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.)

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 provi-

sion 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”.

§ 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 high-rise 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.)

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.

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, re-

lated 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.

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 3(2) and 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, 776, set out in the Appendix to 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 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, func-

¹ See References in Text note below.

tions, etc., was revoked by Ex. Ord. No. 12379, §19, Aug. 17, 1982, 47 F.R. 36100, set out as a note under section 14 of the Federal Advisory Committee Act in the Appendix to 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 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.

(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.)

REFERENCES IN TEXT

The Immigration and Nationality Act, referred to in subsec. (d), is act June 27, 1952, ch. 477, 66 Stat. 163, as amended, 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

1992—Subsec. (d). Pub. L. 102-245 added subsec. (d).
1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards” wherever appearing.

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. Research fellowships and other financial assistance to students at institutes of higher education

(a) In general

The Director is authorized to expend funds appropriated for activities of the Institute in any fiscal year, as the Director may deem desirable, for awards of research fellowships and other forms of financial assistance to 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 to United States citizens for research and technical activities on Institute programs. 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.

(b) Manufacturing fellowship program**(1) Establishment**

To promote the development of a robust research community working at the leading edge of manufacturing sciences, the Director shall establish a program to award—

(A) postdoctoral research fellowships at the Institute for research activities related to manufacturing sciences; and

(B) senior research fellowships to established researchers in industry or at institutions of higher education who wish to pursue studies related to the manufacturing sciences at the Institute.

(2) Applications

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.

(3) Stipend levels

Under this subsection, the Director shall provide stipends for postdoctoral research fellowships at a level consistent with the National Institute of Standards and Technology Postdoctoral Research Fellowship Program, and senior research fellowships at levels consistent with support for a faculty member in a sabbatical position.

(c) Underrepresented minorities

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.

(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.)

PRIOR PROVISIONS

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

AMENDMENTS

2011—Subsec. (a). Pub. L. 111-358, § 407(b), struck out “up to 1.5 percent of the” after “expend”.

Subsec. (c). Pub. L. 111-358, § 406(a), added subsec. (c).

2007—Pub. L. 110-69 designated existing provisions as subsec. (a), inserted heading, substituted “up to 1.5 percent of the” for “up to 1 per centum of the”, and added subsec. (b).

1992—Pub. L. 102-245 inserted before period at end of first sentence “, and to United States citizens for research and technical activities on Institute programs”.

1988—Pub. L. 100-418 substituted “Institute” for “National Bureau of Standards” the first place appearing, and for “Bureau” wherever subsequently appearing.

EFFECTIVE DATE

Pub. L. 99-574, § 6(b), Oct. 28, 1986, 100 Stat. 3237, provided that: “The amendments made by subsection (a) [enacting this section] shall be effective October 1, 1986.”

§ 278g-2. Post-doctoral fellowship program

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.

(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.)

PRIOR PROVISIONS

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

AMENDMENTS

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”.

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.”

§ 278g-2a. Teacher science and technology enhancement Institute program**(a) Establishment**

The Director shall establish within the Institute a teacher science and technology enhancement 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.)

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 3532(b)(2) of title 44);

(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; and

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

(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 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.

(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 (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 to the Director of the Office of Management and Budget 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 November 25, 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 November 25, 2002;

(4) issue guidelines as required under subsection (b)(1)(B) of this section, 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) of this section, along with recommendations as to the extent to which these should be made compulsory and binding, to the Director of the Office of Management and Budget 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) 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) 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) of this section and submit such recommendations to the Director of the Office of Management and Budget with such standards submitted to the Director; 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) 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 3532(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 3532(b)(2) of such title.¹

(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. 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.)

REFERENCES IN TEXT

Section 3532(b)(2) of such title, referred to in subsec. (e)(5), probably means section 3532(b)(2) of title 44.

CODIFICATION

November 25, 2002, referred to in subsec. (c)(3) and (4), was in the original “the date of the enactment of this section” in subsec. (c)(3) and “the date of the enactment of this Act” in subsec. (c)(4), which were 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 renumbered section 32 and is classified to section 278q of this title.

AMENDMENTS

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

2002—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, physical, 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

¹ See References in Text note below.

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 requirements 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.”

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.”

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).

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 an Effective Date note under section 3541 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.

§ 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

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

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 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 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.)

AMENDMENTS

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”.

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 an Effective Date note under section 3541 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 3(2) and 14 of Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, 776, set out in the Appendix to 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 Manufacturing Extension Partnership program¹ 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) Reports

Within 180 days after November 5, 2002, and annually thereafter, the Director shall submit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the National Institute of Standards and Technology's activities under subsection (b) of this section.

(d) 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.

(e) 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.)

REFERENCES IN TEXT

This Act, referred to in subsec. (d), is Pub. L. 107-277, Nov. 5, 2002, 116 Stat. 1936, 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.

CHANGE OF NAME

The Manufacturing Extension Partnership Program, referred to in subsec. (a), redesignated the Hollings Manufacturing Partnership Program by provision of title II of div. B of Pub. L. 108-447, formerly set out as a note under section 278k of this title. Program now known as the Hollings Manufacturing Extension Partnership, see section 278k(i) of this title.

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.

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 to-

¹ See Change of Name note below.

ward 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 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.

(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) of this section. 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

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

² See References in Text note below.

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) of this section 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) of this section; 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) of this section.

(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) of this section. 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) of this section.

(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) of this section 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) of this section, 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.)

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, no longer contains a subsec. (d) defining “computer system” or a 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, as amended, 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.

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.

§ 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.

(c) Three-Year programmatic planning document

Concurrent with the submission to Congress of the President's annual budget request in the first year after August 9, 2007, the Director shall submit to Congress a 3-year programmatic planning document for the Institute, including programs under the Scientific and Technical Research and Services, Industrial Technology Services, and Construction of Research Facilities functions.

(d) Annual update on three-year programmatic planning document

Concurrent with the submission to the Congress of the President's annual budget request in each year after August 9, 2007, the Director shall submit to Congress an update to the 3-year programmatic planning document submitted under subsection (c), revised to cover the first 3 fiscal years after the date of that update.

(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.)

AMENDMENTS

2007—Subsecs. (c), (d). Pub. L. 110-69 added subsecs. (c) and (d).

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. Regional centers for the transfer of manufacturing technology

(a) Creation and support of Centers; affiliations; merit review in determining awards; objectives

The Secretary, through the Director and, if appropriate, through other officials, shall provide assistance for the creation and support of regional centers for the transfer of manufacturing technology (hereafter in this chapter referred to as the "Centers"). Such centers¹ shall be affiliated with any United States-based non-profit institution or organization, or group thereof, that applies for and is awarded financial assistance under this section in accordance with the description published by the Secretary in the Federal Register under subsection (c)(2) of this section. Individual awards shall be decided

¹ So in original. Probably should be capitalized.

on the basis of merit review. The objective of the Centers is to enhance 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, universities, 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 industrial firms, including small- and medium-sized manufacturing companies;

(5) the utilization, when appropriate, of the expertise and capability that exists in Federal laboratories other than the Institute; and

(6) providing to community colleges information about the job skills needed in small- and medium-sized manufacturing businesses in the regions they serve.

(b) Activities of Centers

The activities of the Centers shall include—

(1) the establishment of automated manufacturing systems and other advanced production technologies, based on research by the Institute, 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 companies and enterprises, particularly small- and medium-sized manufacturers; and

(3) loans, on a selective, short-term basis, of items of advanced manufacturing equipment to small manufacturing firms with less than 100 employees.

(c) Duration and amount of support; program descriptions; applications; merit review; evaluations of assistance; applicability of patent law; report; modification of requirements

(1) The Secretary may provide financial support to any Center created under subsection (a) of this section for a period not to exceed six years. The Secretary may not provide to a Center more than 50 percent of the capital and annual operating and maintenance funds required to create and maintain such Center.

(2) The Secretary shall publish in the Federal Register, within 90 days after August 23, 1988, a draft description of a program for establishing Centers, including—

(A) a description of the program;

(B) procedures to be followed by applicants;

(C) criteria for determining qualified applicants;

(D) criteria, including those listed under paragraph (4), for choosing recipients of financial assistance under this section from among the qualified applicants; and

(E) maximum support levels expected to be available to Centers under the program in the fourth through sixth years of assistance under this section.

The Secretary shall publish a final description under this paragraph after the expiration of a 30-day comment period.

(3)(A) 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).

(B) In order to receive assistance under this section, an applicant for financial assistance under subparagraph (A) shall provide adequate assurances that non-Federal assets obtained from the applicant and the applicant's partnering organizations will be used as a funding source to meet not less than 50 percent of the costs incurred for the first 3 years and an increasing share for each of the last 3 years. For purposes of the preceding sentence, the costs incurred means the costs incurred in connection with the activities undertaken to improve the management, productivity, and technological performance of small- and medium-sized manufacturing companies.

(C) In meeting the 50 percent requirement, it is anticipated that a Center will enter into agreements with other entities such as private industry, universities, and State governments to accomplish programmatic objectives and access new and existing resources that will further the impact of the Federal investment made on behalf of small- and medium-sized manufacturing companies. All non-Federal costs,² contributed by such entities and determined by a Center as programmaticaly reasonable and allocable under MEP program procedures are includable as a portion of the Center's contribution.

(D) Each applicant under subparagraph (A) 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.

(4) The Secretary shall subject each such application to merit review. In making a decision whether to approve such application and provide financial support under this subsection, the Secretary shall consider at a minimum (A) the merits of the application, particularly those portions of the application regarding technology transfer, training and education, and adaptation of manufacturing technologies to the needs of particular industrial sectors, (B) the quality of service to be provided, (C) geographical diversity and extent of service area, and (D) the percentage of funding and amount of in-kind commitment from other sources.

(5) Each Center which receives financial assistance under this section shall be evaluated during its third year of operation by an evaluation panel appointed by the Secretary. Each such evaluation panel shall be composed of private experts, none of whom shall be connected with the involved Center, and Federal officials. An official of the Institute shall chair the panel. Each evaluation panel shall measure the involved Center's performance against the objectives specified in this section. The Secretary

² So in original. The comma probably should not appear.

shall not provide funding for the fourth through the sixth years of such Center's operation unless the evaluation is positive. If the evaluation is positive, the Secretary may provide continued funding through the sixth year at declining levels. 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 re-evaluate 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 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.

(6) The provisions of chapter 18 of title 35 shall (to the extent not inconsistent with this section) apply to the promotion of technology from research by Centers under this section except for contracts for such specific technology extension or transfer services as may be specified by statute or by the Director.

(7) Not later than 90 days after January 4, 2011, the Comptroller General shall submit to Congress a report on the cost share requirements under the program. The report shall—

(A) discuss various cost share structures, including the cost share structure in place prior to such date, and the effect of such cost share structures on individual Centers and the overall program; and

(B) include recommendations for how best to structure the cost share requirement to provide for the long-term sustainability of the program.

(8) If consistent with the recommendations in the report transmitted to Congress under paragraph (7), the Secretary shall alter the cost structure requirements specified under paragraph (3)(B) and (5) provided that the modification does not increase the cost share structure in place before January 4, 2011, or allow the Secretary to provide a Center more than 50 percent of the costs incurred by that Center.

(d) Acceptance of funds

(1) In general

In addition to such sums as may be 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 and under section 272(c)(7) of this title from the private sector for the purpose of strengthening United States manufacturing.

(2) Allocation of funds

(A) Funds accepted from other Federal departments or agencies

The Director shall determine whether funds accepted from other Federal departments or agencies shall be counted in the calculation of the Federal share of capital and annual operating and maintenance costs under subsection (c).

(B) Funds accepted from the private sector

Funds accepted from the private sector under section 272(c)(7) of this title, if allocated to a Center, shall not be considered in the calculation of the Federal share under subsection (c) of this section.

(e) MEP Advisory Board

(1) Establishment

There is established within the Institute a Manufacturing Extension Partnership Advisory Board (in this subsection referred to as the "MEP Advisory Board").

(2) Membership

(A) In general

The MEP Advisory Board shall consist of 10 members broadly representative of stakeholders, to be appointed by the Director. At least 2 members shall be employed by or on an advisory board for the Centers, and at least 5 other members shall be from United States small businesses in the manufacturing sector. No member shall be an employee of the Federal Government.

(B) Term

Except as provided in subparagraph (C) or (D), the term of office of each member of the MEP Advisory Board shall be 3 years.

(C) Classes

The original members of the MEP Advisory Board shall be appointed to 3 classes. One class of 3 members shall have an initial term of 1 year, one class of 3 members shall have an initial term of 2 years, and one class of 4 members shall have an initial term of 3 years.

(D) 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.

(E) Serving consecutive terms

Any person who has completed two consecutive full terms of service on the MEP Advisory Board shall thereafter be ineligible for appointment during the one-year period following the expiration of the second such term.

(3) Meetings

The MEP Advisory Board shall meet not less than 2 times annually, and provide to the Director—

(A) advice on Manufacturing Extension Partnership programs, plans, and policies;

(B) assessments of the soundness of Manufacturing Extension Partnership plans and strategies; and

(C) assessments of current performance against Manufacturing Extension Partnership program plans.

(4) Federal Advisory Committee Act applicability

(A) In general

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.

(B) Exception

Section 14 of the Federal Advisory Committee Act shall not apply to the MEP Advisory Board.

(5) Report

The MEP Advisory Board shall transmit an annual report to the Secretary for transmittal to Congress within 30 days after the submission to Congress of the President's annual budget request in each year. Such report shall address the status of the program established pursuant to this section and comment on the relevant sections of the programmatic planning document and updates thereto transmitted to Congress by the Director under subsections (c) and (d) of section 278i of this title.

(f) Competitive grant program

(1) Establishment

The Director shall establish, within the Centers program under this section and section 278l of this title, a program of competitive awards among participants described in paragraph (2) for the purposes described in paragraph (3).

(2) Participants

Participants receiving awards under this subsection shall be the Centers, or a consortium of such Centers.

(3) Purpose

The purpose of the program under this subsection is to add capabilities to the MEP program, 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 MEP program, the Manufacturing Extension Partnership Advisory Board, and small and medium-sized manufacturers. One or more themes for the competition may be identified, which may vary from year to year, depending on the needs of manufacturers and the success of previous competitions. Centers may be reimbursed for costs incurred under the program. These themes—

(A) shall be related to projects designed to increase the viability both of traditional manufacturing sectors and other sectors, such as construction, that increasingly rely on manufacturing through the use of manufactured components and manufacturing techniques, including supply chain integration and quality management;

(B) shall be related to projects related to the transfer of technology based on the technological needs of manufacturers and avail-

able technologies from institutions of higher education, laboratories, and other technology producing entities; and

(C) may extend beyond these traditional areas to include projects related to construction industry modernization.

(4) Applications

Applications for awards under this subsection 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.

(5) Selection

(A) In general

Awards under this section shall be peer reviewed and competitively awarded. The Director shall endeavor to select at least one proposal in each of the 9 statistical divisions of the United States (as designated by the Bureau of the Census). The Director shall select proposals to receive awards that will—

- (i) create jobs or train newly hired employees;
- (ii) promote technology transfer and commercialization of environmentally focused materials, products, and processes;
- (iii) increase energy efficiency; and
- (iv) improve the competitiveness of industries in the region in which the Center or Centers are located.

(B) Additional selection criteria

The Director may select proposals to receive awards that will—

- (i) encourage greater cooperation and foster partnerships in the region with similar Federal, State, and locally funded programs to encourage energy efficiency and building technology; and
- (ii) collect data and analyze the increasing connection between manufactured products and manufacturing techniques, the future of construction practices, and the emerging application of products from the green energy industries.

(6) Program contribution

Recipients of awards under this subsection shall not be required to provide a matching contribution.

(7)³ Global marketplace projects

In making awards under this subsection, the Director, in consultation with the Manufacturing Extension Partnership Advisory Board and the Secretary of Commerce, may—

(A) 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; and

(B) give a preference to applications for such projects to the extent the Director deems appropriate, taking into account the broader purposes of this subsection.

(7)³ Duration

Awards under this section shall last no longer than 3 years.

³ So in original. Two pars. (7) have been enacted.

(8) Eligible participants

In addition to manufacturing firms eligible to participate in the Centers program, awards under this subsection may be used by the Centers to assist small- or medium-sized construction firms. Centers may be reimbursed under the program for working with such eligible participants.

(9) Authorization of appropriations

In addition to any amounts otherwise authorized or appropriated to carry out this section, there are authorized to be appropriated to the Secretary of Commerce \$7,000,000 for each of the fiscal years 2011 through 2013 to carry out this subsection.

(g) Innovative services initiative**(1) Establishment**

The Director shall establish, within the Centers program under this section, an innovative services initiative to assist small- and medium-sized manufacturers in—

(A) reducing their energy usage, greenhouse gas emissions, and environmental waste to improve profitability;

(B) accelerating the domestic commercialization of new product technologies, including components for renewable energy and energy efficiency systems; and

(C) identification of and diversification to new markets, including support for transitioning to the production of components for renewable energy and energy efficiency systems.

(2) Market demand

The Director may not undertake any activity to accelerate the domestic commercialization of a new product technology under this subsection unless an analysis of market demand for the new product technology has been conducted.

(h) Reports**(1) In general**

In submitting the 3-year programmatic planning document and annual updates under section 278i of this title, the Director shall include an assessment of the Director's governance of the program established under this section.

(2) Criteria

In conducting the assessment, the Director shall use the criteria established pursuant to the Malcolm Baldrige National Quality Award under section 3711a(d)(1)(C) of this title.

(i) Designation**(1) Hollings Manufacturing Extension Partnership**

The program under this section shall be known as the "Hollings Manufacturing Extension Partnership".

(2) Hollings Manufacturing Extension Centers

The Regional Centers for the Transfer of Manufacturing Technology created and supported under subsection (a) shall be known as the "Hollings Manufacturing Extension Centers" (in this chapter referred to as the "Centers").

(j) Community college defined

In this section, 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.

(k) Evaluation of obstacles unique to small manufacturers

The Director shall—

(1) evaluate obstacles that are unique to small manufacturers that prevent such manufacturers from effectively competing in the global market;

(2) implement a comprehensive plan to train the Centers to address such obstacles; and

(3) facilitate improved communication between the Centers to assist such manufacturers in implementing appropriate, targeted solutions to such obstacles.

(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.)

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (e)(4), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, which is set out in the Appendix to Title 5, Government Organization and Employees.

AMENDMENTS

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.”

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 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.

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 section 25(f) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(f)) 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 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 section 25(c)(2) of the Act of March 3, 1901, [15 U.S.C. 278k(c)(2)], shall be considered to have been met by the publication made by the National Bureau of Standards on July 18, 1988 (53 Fed. Reg. 27060)."

§ 278I. Assistance to State technology programs

(a) In addition to the Centers program created 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.)

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. 278I], 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 section 25 of the Act of March 3, 1901 [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. 278I], 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. Technology Innovation Program

(a) Establishment

There is established within the Institute a program linked to the purpose and functions of the Institute, to be known as the “Technology Innovation Program” for the purpose of assisting United States businesses and institutions of higher education or other organizations, such as national laboratories and nonprofit research institutions, to support, promote, and accelerate innovation in the United States through high-risk, high-reward research in areas of critical national need.

(b) External funding

(1) In general

The Director shall award competitive, merit-reviewed grants, cooperative agreements, or contracts to—

- (A) eligible companies that are small-sized businesses or medium-sized businesses; or
- (B) joint ventures.

(2) Single company awards

No award given to a single company shall exceed \$3,000,000 over 3 years.

(3) Joint venture awards

No award given to a joint venture shall exceed \$9,000,000 over 5 years.

(4) Federal cost share

The Federal share of a project funded by an award under the program shall not be more than 50 percent of total project costs.

(5) Prohibitions

Federal funds awarded under this program may be used only for direct costs and not for indirect costs, profits, or management fees of a contractor. Any business that is not a small-sized or medium-sized business may not receive any funding under this program.

(c) Award criteria

The Director shall only provide assistance under this section to an entity—

- (1) whose proposal has scientific and technical merit and may result in intellectual property vesting in a United States entity that can commercialize the technology in a timely manner;
- (2) whose application establishes that the proposed technology has strong potential to address critical national needs through transforming the Nation’s capacity to deal with major societal challenges that are not currently being addressed, and generate substantial benefits to the Nation that extend significantly beyond the direct return to the applicant;

(3) whose application establishes that the research has strong potential for advancing the state-of-the-art and contributing significantly to the United States science and technology knowledge base;

(4) whose proposal explains why Technology Innovation Program support is necessary, including evidence that the research will not be conducted within a reasonable time period in the absence of financial assistance under this section;

(5) whose application demonstrates that reasonable efforts have been made to secure funding from alternative funding sources and no other alternative funding sources are reasonably available to support the proposal; and

(6) whose application explains the novelty of the technology and demonstrates that other entities have not already developed, commercialized, marketed, distributed, or sold similar technologies.

(d) Competitions

The Director shall solicit proposals at least annually to address areas of critical national need for high-risk, high-reward projects.

(e) Intellectual property rights ownership

(1) In general

Title to any intellectual property developed by a joint venture from assistance provided under this section may vest in any participant in the joint venture, as agreed by the members of the joint venture, notwithstanding section 202(a) and (b) of title 35. The United States may reserve a nonexclusive, nontransferable, irrevocable paid-up license, to have practice for or on behalf of the United States in connection with any such intellectual property, but shall not in the exercise of such license publicly disclose proprietary information related to the license. Title to any such intellectual property shall not be transferred or passed, except to a participant in the joint venture, until the expiration of the first patent obtained in connection with such intellectual property.

(2) Licensing

Nothing in this subsection shall be construed to prohibit the licensing to any company of intellectual property rights arising from assistance provided under this section.

(3) Definition

For purposes of this subsection, the term “intellectual property” means an invention patentable under title 35, or any patent on such an invention, or any work for which copyright protection is available under title 17.

(f) Program operation

Not later than 9 months after August 9, 2007, the Director shall promulgate regulations—

- (1) establishing criteria for the selection of recipients of assistance under this section;
- (2) establishing procedures regarding financial reporting and auditing to ensure that awards are used for the purposes specified in this section, are in accordance with sound accounting practices, and are not funding exist-

ing or planned research programs that would be conducted within a reasonable time period in the absence of financial assistance under this section; and

(3) providing for appropriate dissemination of Technology Innovation Program research results.

(g) Annual report

The Director shall submit annually to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science and Technology of the House of Representatives a report describing the Technology Innovation Program's activities, including a description of the metrics upon which award funding decisions were made in the previous fiscal year, any proposed changes to those metrics, metrics for evaluating the success of ongoing and completed awards, and an evaluation of ongoing and completed awards. The first annual report shall include best practices for management of programs to stimulate high-risk, high-reward research.

(h) Continuation of ATP grants

The Director shall, through the Technology Innovation Program, continue to provide support originally awarded under the Advanced Technology Program, in accordance with the terms of the original award and consistent with the goals of the Technology Innovation Program.

(i) Coordination with other State and Federal technology programs

In carrying out this section, the Director shall, as appropriate, coordinate with other senior State and Federal officials to ensure cooperation and coordination in State and Federal technology programs and to avoid unnecessary duplication of efforts.

(j) Acceptance of funds from other Federal agencies

In addition to amounts appropriated to carry out this section, the Secretary and the Director may accept funds from other Federal agencies to support awards under the Technology Innovation Program. Any award under this section which is supported with funds from other Federal agencies shall be selected and carried out according to the provisions of this section. Funds accepted from other Federal agencies shall be included as part of the Federal cost share of any project funded under this section.

(k) TIP Advisory Board

(1) Establishment

There is established within the Institute a TIP Advisory Board.

(2) Membership

(A) In general

The TIP Advisory Board shall consist of 10 members appointed by the Director, at least 7 of whom shall be from United States industry, chosen to reflect the wide diversity of technical disciplines and industrial sectors represented in Technology Innovation Program projects. No member shall be an employee of the Federal Government.

(B) Term

Except as provided in subparagraph (C) or (D), the term of office of each member of the TIP Advisory Board shall be 3 years.

(C) Classes

The original members of the TIP Advisory Board shall be appointed to 3 classes. One class of 3 members shall have an initial term of 1 year, one class of 3 members shall have an initial term of 2 years, and one class of 4 members shall have an initial term of 3 years.

(D) 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.

(E) Serving consecutive terms

Any person who has completed 2 consecutive full terms of service on the TIP Advisory Board shall thereafter be ineligible for appointment during the 1-year period following the expiration of the second such term.

(3) Purpose

The TIP Advisory Board shall meet not less than 2 times annually, and provide the Director—

(A) advice on programs, plans, and policies of the Technology Innovation Program;

(B) reviews of the Technology Innovation Program's efforts to accelerate the research and development of challenging, high-risk, high-reward technologies in areas of critical national need;

(C) reports on the general health of the program and its effectiveness in achieving its legislatively mandated mission; and

(D) guidance on investment areas that are appropriate for Technology Innovation Program funding;¹

(4) Advisory capacity

In discharging its duties under this subsection, the TIP Advisory Board shall function solely in an advisory capacity, in accordance with the Federal Advisory Committee Act.

(5) Annual report

The TIP Advisory Board shall transmit an annual report to the Secretary for transmittal to the Congress not later than 30 days after the submission to Congress of the President's annual budget request in each year. Such report shall address the status of the Technology Innovation Program and comment on the relevant sections of the programmatic planning document and updates thereto transmitted to Congress by the Director under subsections (c) and (d) of section 278i of this title.

(I) Definitions

In this section—

(1) the term "eligible company" means a small-sized or medium-sized business that is incorporated in the United States and does a majority of its business in the United States, and that either—

¹ So in original. The semicolon probably should be a period.

(A) is majority owned by citizens of the United States; or

(B) is owned by a parent company incorporated in another country and the Director finds that—

(i) the company's participation in the Technology Innovation Program would be in the economic interest of the United States, as evidenced by—

(I) investments in the United States in research and manufacturing;

(II) significant contributions to employment in the United States; and

(III) agreement with respect to any technology arising from assistance provided under this section to promote the manufacture within the United States of products resulting from that technology; and

(ii) the company is incorporated in a country which—

(I) affords to United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those receiving funding under this section;

(II) affords to United States-owned companies local investment opportunities comparable to those afforded any other company; and

(III) affords adequate and effective protection for intellectual property rights of United States-owned companies;

(2) the term “high-risk, high-reward research” means research that—

(A) has the potential for yielding transformational results with far-ranging or wide-ranging implications;

(B) addresses critical national needs within the National Institute of Standards and Technology's areas of technical competence; and

(C) is too novel or spans too diverse a range of disciplines to fare well in the traditional peer-review process;

(3) the term “institution of higher education” has the meaning given that term in section 1001 of title 20;

(4) the term “joint venture” means a joint venture that—

(A) includes either—

(i) at least 2 separately owned for-profit companies that are both substantially involved in the project and both of which are contributing to the cost-sharing required under this section, with the lead entity of the joint venture being one of those companies that is a small-sized or medium-sized business; or

(ii) at least 1 small-sized or medium-sized business and 1 institution of higher education or other organization, such as a national laboratory or nonprofit research institute, that are both substantially involved in the project and both of which are contributing to the cost-sharing required under this section, with the lead entity of the joint venture being either that small-sized or medium-sized business or that institution of higher education; and

(B) may include additional for-profit companies, institutions of higher education, and other organizations, such as national laboratories and nonprofit research institutes, that may or may not contribute non-Federal funds to the project; and

(5) the term “TIP Advisory Board” means the advisory board established under subsection (k).

(Mar. 3, 1901, ch. 872, § 28, as added Pub. L. 110-69, title III, § 3012(b), Aug. 9, 2007, 121 Stat. 593.)

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (k)(4), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, which is set out in the Appendix to Title 5, Government Organization and Employees.

PRIOR PROVISIONS

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.

CHANGE OF NAME

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.

TECHNOLOGY INNOVATION PROGRAM

Pub. L. 111-240, title IV, § 4226(b), Sept. 27, 2010, 124 Stat. 2598, provided that: “In awarding grants, cooperative agreements, or contracts under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n), in addition to the award criteria set forth in subsection (c) of that section, the Director of the National Institute of Standards and Technology may take into consideration whether an application has significant potential for enhancing the competitiveness of small- and medium-sized businesses in the United States in the global marketplace. The Director shall consult with the Technology Innovation Program Advisory Board and the Secretary of Commerce in implementing this subsection.”

TRANSITION

Pub. L. 110-69, title III, § 3012(c), Aug. 9, 2007, 121 Stat. 598, provided that: “Notwithstanding the repeal made by subsection (a) [repealing former section 278n of this title], the Director shall carry out section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n) as such section was in effect on the day before the date of the enactment of this Act [Aug. 9, 2007], with respect to applications for grants under such section submitted before such date, until the earlier of—

“(1) the date that the Director promulgates the regulations required under section 28(f) of the National Institute of Standards and Technology Act [15 U.S.C. 278n(f)], as added by subsection (b) [Final regulations implementing the Technology Innovation Program issued June 25, 2008. See 73 F.R. 35913.]; or

“(2) December 31, 2007.”

NATIONAL ACADEMIES OF SCIENCES AND ENGINEERING STUDY OF GOVERNMENT-INDUSTRY COOPERATION IN CIVILIAN TECHNOLOGY

Pub. L. 100-418, title V, § 5131(c), Aug. 23, 1988, 102 Stat. 1443, directed the Secretary of Commerce, within 90 days after Aug. 23, 1988, to enter into contracts with the National Academies of Sciences and Engineering to review the various types of cooperative arrangements between the private sector and the Federal Government

and required a report based on the review to be submitted to the Secretary, the President, and Congress within 18 months after the contracts were signed.

§ 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.)

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.

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.)

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.

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.)

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.)

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 34 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.)

§ 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.)

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

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.)

REFERENCES IN TEXT

The National Construction Safety Team Act, referred to in text, is Pub. L. 107-231, Oct. 1, 2002, 116 Stat. 1471, as amended, 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.

drainic 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.)

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

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. Congressional declaration of policy.
- 290. Definitions.
- 290a. Collection, compilation, critical evaluation, publication and dissemination of standard reference data.
- 290b.