

(1) To identify and integrate requirements for the program.

(2) To conduct joint planning for the program.

(3) To develop joint strategies for the program.

(d) In carrying out the purposes specified in subsection (c), the Panel shall perform the functions as follows:

(1) Conduct comprehensive reviews and assessments of defense-related manufacturing issues being addressed by the manufacturing technology programs and related activities of the Department of Defense.

(2) Execute strategic planning to identify joint planning opportunities for increased cooperation in the development and implementation of technological products and the leveraging of funding for such purposes with the private sector and other government agencies.

(3) Ensure the integration and coordination of requirements and programs under the program with the Office of the Secretary of Defense and other national-level initiatives, including the establishment of information exchange processes with other government agencies, private industry, academia, and professional associations.

(4) Conduct such other functions as the Under Secretary of Defense for Research and Engineering shall specify.

(e) The Panel shall report to and receive direction from one or more individuals designated by the Under Secretary of Defense for Research and Engineering for purposes of this subsection on manufacturing technology issues of multi-service concern and application.

(f) The administrative expenses of the Panel shall be borne by each military department and Defense Agency with manufacturing technology programs in such manner as the Panel shall provide.

(Added and amended Pub. L. 116-283, div. A, title XVIII, § 1869(c)(1)(B), (2), Jan. 1, 2021, 134 Stat. 4283, 4284.)

Editorial Notes

CODIFICATION

The text of subsec. (e), related to Joint Defense Manufacturing Technology Panel, of section 4841 of this title, which was transferred to this section by Pub. L. 116-283, § 1869(c)(1)(B), was based on Pub. L. 111-84, div. A, title II, § 212(2), Oct. 28, 2009, 123 Stat. 2225; Pub. L. 112-239, div. A, title X, § 1076(c)(2)(A)(i), Jan. 2, 2013, 126 Stat. 1949; Pub. L. 113-291, div. A, title II, § 212(a), Dec. 19, 2014, 128 Stat. 3325; Pub. L. 116-92, div. A, title IX, § 902(76)(B), (C), Dec. 20, 2019, 133 Stat. 1552.

PRIOR PROVISIONS

A prior section 4842 was renumbered section 7842 of this title.

AMENDMENTS

2021—Pub. L. 116-283, § 1869(c)(2)(A), (B), struck out subsec. (e) designation and heading and redesignated pars. (1) to (6) as subsecs. (a) to (f), respectively.

Pub. L. 116-283, § 1869(c)(1)(B), transferred subsec. (e), related to Joint Defense Manufacturing Technology Panel, of section 4841 of this title to this section and added section catchline.

Subsec. (b). Pub. L. 116-283, § 1869(c)(2)(C), redesignated subpars. (A) and (B) as pars. (1) and (2), respectively.

Subsec. (c). Pub. L. 116-283, § 1869(c)(2)(D), redesignated subpars. (A) to (C) as pars. (1) to (3), respectively.

Subsec. (d). Pub. L. 116-283, § 1869(c)(2)(E), substituted “subsection (c)” for “paragraph (3)” in introductory provisions and redesignated subpars. (A) to (D) as pars. (1) to (4), respectively.

Subsec. (e). Pub. L. 116-283, § 1869(c)(2)(F), substituted “this subsection” for “this paragraph”.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE

Section and amendment by Pub. L. 116-283 effective Jan. 1, 2022, with additional provisions for delayed implementation and applicability of existing law, see section 1801(d) of Pub. L. 116-283, set out as an Effective Date of 2021 Amendment note preceding section 3001 of this title.

§ 4843. Manufacturing engineering education program

(a) ESTABLISHMENT OF MANUFACTURING ENGINEERING EDUCATION PROGRAM.—(1) The Secretary of Defense shall establish a program under which the Secretary makes grants or other awards to support—

(A) the enhancement of existing programs in manufacturing engineering education to further a mission of the department; or

(B) the establishment of new programs in manufacturing engineering education that meet such requirements.

(2) Grants and awards under this section may be made to industry, not-for-profit institutions, institutions of higher education, or to consortia of such institutions or industry.

(3) The Secretary shall establish the program in consultation with the Secretary of Education, the Director of the National Science Foundation, the Director of the Office of Science and Technology Policy, and the secretaries of such other relevant Federal agencies as the Secretary considers appropriate.

(4) The Secretary shall ensure that the program is coordinated with Department programs associated with advanced manufacturing.

(5) The program shall be known as the “Manufacturing Engineering Education Program”.

(b) Geographical Distribution of Grants and Awards.—In awarding grants and other awards under this subsection, the Secretary shall, to the maximum extent practicable, avoid geographical concentration of awards.

(c) COVERED PROGRAMS.—A program of engineering education supported pursuant to this section shall meet the requirements of this section.

(d) COMPONENTS OF PROGRAM.—The program of education for which such a grant is made shall be a consolidated and integrated multidisciplinary program of education with an emphasis on the following components:

(1) Multidisciplinary instruction that encompasses the total manufacturing engineering enterprise and that may include—

(A) manufacturing engineering education and training through classroom activities, laboratory activities, thesis projects, individual or team projects, internships, cooper-

ative work-study programs, and interactions with industrial facilities, consortia, or such other activities and organizations in the United States and foreign countries as the Secretary considers appropriate;

(B) faculty development programs;

(C) recruitment of educators highly qualified in manufacturing engineering to teach or develop manufacturing engineering courses;

(D) presentation of seminars, workshops, and training for the development of specific manufacturing engineering skills;

(E) activities involving interaction between students and industry, including programs for visiting scholars, personnel exchange, or industry executives;

(F) development of new, or updating and modification of existing, manufacturing curriculum, course offerings, and education programs;

(G) establishment of programs in manufacturing workforce training;

(H) establishment of joint manufacturing engineering programs with defense laboratories and depots; and

(I) expansion of manufacturing training and education programs and outreach for members of the armed forces, dependents and children of such members, veterans, and employees of the Department of Defense.

(2) Opportunities for students to obtain work experience in manufacturing through such activities as internships, summer job placements, or cooperative work-study programs.

(3) Faculty and student engagement with industry that is directly related to, and supportive of, the education of students in manufacturing engineering because of—

(A) the increased understanding of manufacturing engineering challenges and potential solutions; and

(B) the enhanced quality and effectiveness of the instruction that result from that increased understanding.

(e) PROPOSALS.—The Secretary of Defense shall solicit proposals for grants and other awards to be made pursuant to this section for the support of programs of manufacturing engineering education that are consistent with the purposes of this section.

(f) MERIT COMPETITION.—Applications for awards shall be evaluated on the basis of merit pursuant to competitive procedures prescribed by the Secretary.

(g) SELECTION CRITERIA.—The Secretary may select a proposal for an award pursuant to this section if the proposal, at a minimum, does each of the following:

(1) Contains innovative approaches for improving engineering education in manufacturing technology.

(2) Demonstrates a strong commitment by the proponents to apply the resources necessary to achieve the objectives for which the award is to be made.

(3) Provides for effective engagement with industry or government organizations that supports the instruction to be provided in the proposed program and is likely to improve manufacturing engineering and technology.

(4) Demonstrates a significant level of involvement of United States industry in the proposed instructional and research activities.

(5) Is likely to attract superior students and promote careers in manufacturing engineering.

(6) Proposes to involve fully qualified personnel who are experienced in manufacturing engineering education and technology.

(7) Proposes a program that, within three years after the award is made, is likely to attract from sources other than the Federal Government the financial and other support necessary to sustain such program.

(8) Proposes to achieve a significant level of participation by women, members of minority groups, and individuals with disabilities through active recruitment of students from among such persons.

(9) Trains students in advanced manufacturing and in relevant emerging technologies and production processes.

(h) INSTITUTION OF HIGHER EDUCATION DEFINED.—In this section, the term “institution of higher education” has the meaning given such term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(Added Pub. L. 102–190, div. A, title VIII, § 825(a)(1), Dec. 5, 1991, 105 Stat. 1438, § 2196; amended Pub. L. 114–328, div. A, title II, § 215, Dec. 23, 2016, 130 Stat. 2048; renumbered § 4843, Pub. L. 116–283, div. A, title XVIII, § 1869(d)(1), as added Pub. L. 117–81, div. A, title XVII, § 1701(p)(1)(A), (B), Dec. 27, 2021, 135 Stat. 2148.)

Editorial Notes

CODIFICATION

Pub. L. 116–283, § 1869(d), which had initially directed the transfer of section 2522 of this title to this section, was amended by Pub. L. 117–81, § 1701(p)(1)(A), (B), and, after that amendment, such transfer was no longer directed. Instead, Pub. L. 116–283, as amended by Pub. L. 117–81, transferred section 2196 of this title to this section and section 2522 of this title to section 4845.

AMENDMENTS

2021—Pub. L. 116–283, § 1869(d)(1), as added by Pub. L. 117–81, § 1701(p)(1)(A), (B), renumbered section 2196 of this title as this section.

2016—Pub. L. 114–328 amended section generally. Prior to amendment, section related to grants for manufacturing engineering education.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2021 AMENDMENT

Amendment by Pub. L. 117–81 applicable as if included in the enactment of title XVIII of Pub. L. 116–283 as enacted, see section 1701(a)(2) of Pub. L. 117–81, set out in a note preceding section 3001 of this title and note below.

Amendment by Pub. L. 116–283 effective Jan. 1, 2022, with additional provisions for delayed implementation and applicability of existing law, see section 1801(d) of Pub. L. 116–283, set out as a note preceding section 3001 of this title.

IMPLEMENTATION OF GRANT PROGRAM; PRIORITY IN FUNDING

Pub. L. 102–190, div. A, title VIII, § 825(b), Dec. 5, 1991, 105 Stat. 1442, provided that: “Within one year after the date of the enactment of this Act [Dec. 5, 1991], the Sec-

retary of Defense, in consultation with the Director of the National Science Foundation, shall award grants under section 2196 of title 10, United States Code [now 10 U.S.C. 4843] (as added by subsection (a)), to institutions of higher education throughout the United States.”

§ 4844. Manufacturing experts in the classroom

(a) ESTABLISHMENT OF PROGRAM.—The Secretary of Defense, in consultation with the Secretary of Education and the Secretary of Commerce, shall conduct a program to support the following activities of one or more manufacturing experts at institutions of higher education:

(1) Identifying the education and training requirements of United States manufacturing firms located in the same geographic region as an institution participating in the program.

(2) Assisting in the development of teaching curricula for classroom and in-factory education and training classes at such an institution.

(3) Teaching such classes and overseeing the teaching of such classes by others.

(4) Improving the knowledge and expertise of permanent faculty and staff of such an institution.

(5) Marketing the programs and facilities of such an institution to firms referred to in paragraph (1).

(6) Coordinating the activities described in the other provisions of this subsection with other programs conducted by the Federal Government, any State, any local government, or any private, nonprofit organization to modernize United States manufacturing firms, especially the regional centers for the transfer of manufacturing technology and programs receiving financial assistance under section 4843 of this title.

(b) MERIT COMPETITION.—Applications for assistance under this section shall be evaluated on the basis of merit pursuant to competitive procedures prescribed by the Secretary.

(c) SELECTION CRITERIA.—The Secretary shall select institutions for the award of financial assistance under this section from among institutions submitting applications for such assistance that—

(1) demonstrate that the proposed activities are of an appropriate scale and a sufficient quality to ensure long term improvement in the applicant’s capability to serve the education and training needs of United States manufacturing firms in the same region as the applicant;

(2) demonstrate a significant level of industry involvement and support;

(3) demonstrate attention to the needs of any United States industries that supply manufactured products to the Department of Defense or to a contractor of the Department of Defense; and

(4) meet such other criteria as the Secretary may prescribe.

(d) FEDERAL SUPPORT.—The amount of financial assistance furnished to an institution under this section may not exceed 50 percent of the estimated cost of carrying out the activities pro-

posed to be supported in part with such financial assistance for the period for which the assistance is to be provided. In no event may the amount of the financial assistance provided to an institution exceed \$250,000 per year. The period for which financial assistance is provided an institution under this section shall be at least two years unless such assistance is earlier terminated for cause determined by the Secretary.

(e) MANUFACTURING EXPERT DEFINED.—In this section, the term “manufacturing expert” means manufacturing managers and workers having experience in the organization of production and education and training needs and other experts in manufacturing.

(Added Pub. L. 102-190, div. A, title VIII, § 825(a)(1), Dec. 5, 1991, 105 Stat. 1440, § 2197; amended Pub. L. 102-484, div. D, title XLII, § 4238(a), (b)(1), Oct. 23, 1992, 106 Stat. 2694; renumbered § 4844 and amended Pub. L. 116-283, div. A, title XVIII, § 1869(d), as added Pub. L. 117-81, div. A, title XVII, § 1701(p)(1), Dec. 27, 2021, 135 Stat. 2148.)

Editorial Notes

AMENDMENTS

2021—Pub. L. 116-283, § 1869(d)(1), as added by Pub. L. 117-81, § 1701(p)(1)(A), (B), renumbered section 2197 of this title as this section.

Subsec. (a)(6). Pub. L. 116-283, § 1869(d)(2), as added by Pub. L. 117-81, § 1701(p)(1)(C), substituted “section 4843” for “section 2196”.

1992—Pub. L. 102-484, § 4238(b)(1), substituted “experts” for “managers” in section catchline.

Subsec. (a). Pub. L. 102-484, § 4238(a)(1), struck out “managers and” after “manufacturing” in introductory provisions.

Subsec. (e). Pub. L. 102-484, § 4238(a)(2), added subsec. (e).

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2021 AMENDMENT

Amendment by Pub. L. 117-81 applicable as if included in the enactment of title XVIII of Pub. L. 116-283 as enacted, see section 1701(a)(2) of Pub. L. 117-81, set out in a note preceding section 3001 of this title and note below.

Amendment by Pub. L. 116-283 effective Jan. 1, 2022, with additional provisions for delayed implementation and applicability of existing law, see section 1801(d) of Pub. L. 116-283, set out as a note preceding section 3001 of this title.

§ 4845. Armament retooling and manufacturing

The Secretary of the Army is authorized by chapter 764 of this title to carry out programs for the support of armaments retooling and manufacturing in the national defense industrial and technology base.

(Added Pub. L. 106-398, § 1 [[div. A], title III, § 344(c)(1)(B)], Oct. 30, 2000, 114 Stat. 1654, 1654A-71, § 2522; amended Pub. L. 115-232, div. A, title VIII, § 809(a), Aug. 13, 2018, 132 Stat. 1840; renumbered § 4845, Pub. L. 116-283, div. A, title XVIII, § 1869(d)(1), as added Pub. L. 117-81, div. A, title XVII, § 1701(p)(1)(A), (B), Dec. 27, 2021, 135 Stat. 2148.)