

DEFINITIONS

For definitions of terms used in this section, see section 7001 of Pub. L. 110–69, set out as a note under section 1862o of this title.

§ 1862p. National Center for Science and Engineering Statistics

(a) Establishment

There is established within the Foundation a National Center for Science and Engineering Statistics that shall serve as a central Federal clearinghouse for the collection, interpretation, analysis, and dissemination of objective data on science, engineering, technology, and research and development.

(b) Duties

In carrying out subsection (a) of this section, the Director, acting through the Center shall—

(1) collect, acquire, analyze, report, and disseminate statistical data related to the science and engineering enterprise in the United States and other nations that is relevant and useful to practitioners, researchers, policymakers, and the public, including statistical data on—

- (A) research and development trends;
- (B) the science and engineering workforce;
- (C) United States competitiveness in science, engineering, technology, and research and development; and
- (D) the condition and progress of United States STEM education;

(2) support research using the data it collects, and on methodologies in areas related to the work of the Center; and

(3) support the education and training of researchers in the use of large-scale, nationally representative data sets.

(c) Statistical reports

The Director or the National Science Board, acting through the Center, shall issue regular, and as necessary, special statistical reports on topics related to the national and international science and engineering enterprise such as the biennial report required by section 1863(j)(1) of this title on indicators of the state of science and engineering in the United States.

(Pub. L. 111–358, title V, § 505, Jan. 4, 2011, 124 Stat. 4007.)

Editorial Notes

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

Statutory Notes and Related Subsidiaries

RESEARCH ON EFFICIENCY OF SKILLED TECHNICAL LABOR MARKETS

Pub. L. 115–402, § 4, Dec. 31, 2018, 132 Stat. 5346, provided that:

“(a) EFFICIENCY OF SKILLED TECHNICAL LABOR MARKETS.—The Director of the National Science Founda-

tion, working through the Directorate of Social, Behavioral & Economic Sciences, in coordination with the Secretary of Labor, shall support research on labor market analysis innovations, data and information sciences, electronic information tools and methodologies, and metrics.

“(b) SKILLED TECHNICAL WORKFORCE.—

“(1) REVIEW.—The National Center for Science and Engineering Statistics of the National Science Foundation shall consult and coordinate with other relevant Federal statistical agencies, including the Institute of Education Sciences of the Department of Education, and the Committee on Science, Technology, Engineering, and Mathematics Education of the National Science and Technology Council established under section 101 of the America COMPETES [Reauthorization] Act of 2010 (Public Law 111–358) [42 U.S.C. 6621], to explore the feasibility of expanding its surveys to include the collection of objective data on the skilled technical workforce.

“(2) REPORT.—Not later than 1 year after the date of enactment of this Act [Dec. 31, 2018], the Director of the National Science Foundation shall submit to Congress a report on the progress made in expanding the National Center for Science and Engineering Statistics surveys to include the skilled technical workforce, including a plan for multi-agency collaboration to improve data collection and reporting of data on the skilled technical workforce.

“(3) DEFINITION OF SKILLED TECHNICAL WORKFORCE.—The term ‘‘skilled technical workforce’’ [sic] means workers with high school diplomas and two-year technical training or certifications who employ significant levels of STEM knowledge in their jobs.”

DEFINITIONS

For definition of ‘‘STEM’’ as used in this section, see section 2 of Pub. L. 111–358, set out as a note under section 6621 of this title.

Pub. L. 111–358, title V, § 502, Jan. 4, 2011, 124 Stat. 4005, as amended by Pub. L. 114–329, title I, § 103(e)(1), Jan. 6, 2017, 130 Stat. 2975, provided that: ‘‘In this subtitle [subtitle A (§§ 501–527) of title V of Pub. L. 111–358, enacting this section and sections 1862p–1 to 1862p–15 of this title, amending sections 1862n–1a, 1862n–5, 1863, and 1869 of this title, and enacting provisions set out as notes under sections 1862p and 1869 of this title]:

“(1) DIRECTOR.—The term ‘Director’ means the Director of the National Science Foundation.

“(2) EPSCoR.—The term ‘EPSCoR’ means—

“(A) the Established Program to Stimulate Competitive Research established by the Foundation; or

“(B) a program similar to the Established Program to Stimulate Competitive Research at another Federal agency.

“(3) FOUNDATION.—The term ‘Foundation’ means the National Science Foundation established under section 2 of the National Science Foundation Act of 1950 (42 U.S.C. 1861).

“(4) INSTITUTION OF HIGHER EDUCATION.—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)).

“(5) STATE.—The term ‘State’ means one of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or any other territory or possession of the United States.

“(6) UNITED STATES.—The term ‘United States’ means the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any other territory or possession of the United States.”

§ 1862p–1. National Science Foundation manufacturing research and education

(a) Manufacturing research

The Director shall carry out a program to award merit-reviewed, competitive grants to in-

stitutions of higher education to support fundamental research leading to transformative advances in manufacturing technologies, processes, and enterprises that will support United States manufacturing through improved performance, productivity, sustainability, and competitiveness. Research areas may include—

- (1) nanomanufacturing;
- (2) manufacturing and construction machines and equipment, including robotics, automation, and other intelligent systems;
- (3) manufacturing enterprise systems;
- (4) advanced sensing and control techniques;
- (5) materials processing;
- (6) information technologies for manufacturing, including predictive and real-time models and simulations, virtual manufacturing;¹ and artificial intelligence and machine learning; and
- (7) additive manufacturing, including new material designs, complex materials, rapid printing techniques, and real-time process controls.

(b) Manufacturing education

In order to help ensure a well-trained manufacturing workforce, the Director shall award grants to strengthen and expand scientific and technical education and training in advanced manufacturing, including through the Foundation's Advanced Technological Education program.

(Pub. L. 111–358, title V, § 506, Jan. 4, 2011, 124 Stat. 4007; Pub. L. 117–167, div. B, title III, § 10358, Aug. 9, 2022, 136 Stat. 1563.)

Editorial Notes

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

AMENDMENTS

Subsec. (a)(6). Pub. L. 117–167, § 10358(2), substituted “simulations, virtual manufacturing; and artificial intelligence and machine learning; and” for “simulations, and virtual manufacturing.”

Subsec. (a)(7). Pub. L. 117–167, § 10358(1), (3), added par. (7).

Statutory Notes and Related Subsidiaries

DEFINITIONS

For definitions of terms used in this section, see section 502 of Pub. L. 111–358, set out as a note under section 1862p of this title.

§ 1862p–2. Partnerships for innovation

(a) In general

The Director shall carry out a program to award merit-reviewed, competitive grants to institutions of higher education to establish and to expand partnerships that promote innovation and increase the impact of research by devel-

oping tools and resources to connect new scientific discoveries to practical uses.

(b) Partnerships

(1) In general

To be eligible for funding under this section, an institution of higher education must propose establishment of a partnership that—

- (A) includes at least one private sector entity; and
- (B) may include other institutions of higher education, public sector institutions, private sector entities, and nonprofit organizations.

(2) Priority

In selecting grant recipients under this section, the Director shall give priority to partnerships that include one or more institutions of higher education and at least one of the following:

- (A) A minority serving institution.
- (B) A primarily undergraduate institution.
- (C) A 2-year institution of higher education.

(c) Program

Proposals funded under this section shall seek—

- (1) to increase the impact of the most promising research at the institution or institutions of higher education that are members of the partnership through knowledge transfer or commercialization;
- (2) to increase the engagement of faculty and students across multiple disciplines and departments, including faculty and students in schools of business and other appropriate non-STEM fields and disciplines in knowledge transfer activities;
- (3) to enhance education and mentoring of students and faculty in innovation and entrepreneurship through networks, courses, and development of best practices and curricula;
- (4) to strengthen the culture of the institution or institutions of higher education to undertake and participate in activities related to innovation and leading to economic or social impact;
- (5) to broaden the participation of all types of institutions of higher education in activities to meet STEM workforce needs and promote innovation and knowledge transfer; and
- (6) to build lasting partnerships with local and regional businesses, local and State governments, and other relevant entities.

(d) Additional criteria

In selecting grant recipients under this section, the Director shall also consider the extent to which the applicants are able to demonstrate evidence of institutional support for, and commitment to—

- (1) achieving the goals of the program as described in subsection (c);
- (2) expansion to an institution-wide program if the initial proposal is not for an institution-wide program; and
- (3) sustaining any new innovation tools and resources generated from funding under this program.

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