

## § 1862o–10. Advanced information and communications technology research

### (1) In general

As part of the Program described in title I of the High-Performance Computing Act of 1991 (15 U.S.C. 5511 et seq.), the Foundation shall support basic research related to advanced information and communications technologies that will contribute to enhancing or facilitating the availability and affordability of advanced communications services for all people of the United States. Areas of research to be supported may include research on—

- (A) affordable broadband access, including wireless technologies;
- (B) network security and reliability;
- (C) communications interoperability;
- (D) networking protocols and architectures, including resilience to outages or attacks;
- (E) trusted software;
- (F) privacy;
- (G) nanoelectronics for communications applications;
- (H) low-power communications electronics;
- (I) implementation of equitable access to national advanced fiber optic research and educational networks in noncontiguous States; and
- (J) such other related areas as the Director finds appropriate.

### (2) Centers

The Director shall award multiyear grants, subject to the availability of appropriations and on a merit-reviewed competitive basis, to institutions of higher education, nonprofit research institutions affiliated with institutions of higher education, or consortia of either type of institution to establish multidisciplinary Centers for Communications Research. The purpose of the Centers shall be to generate innovative approaches to problems in information and communications technology research, including the research areas described in paragraph (1). Institutions of higher education, nonprofit research institutions affiliated with institutions of higher education, or consortia receiving such grants may partner with 1 or more government laboratories, for-profit entities, or other institutions of higher education or nonprofit research institutions.

### (3) Funding allocation

The Director shall increase funding for the basic research activities described in paragraph (1), which shall include support for the Centers described in paragraph (2), in proportion to the increase in the total amount appropriated to the Foundation for research and related activities for the fiscal years 2008 through 2010.

### (4) Report to Congress

The Director shall transmit to Congress, as part of the President's annual budget submission under section 1105 of title 31, a report on the amounts allocated for support of research under this section for the fiscal year during which such report is submitted and the levels proposed for the fiscal year with respect to which the budget submission applies.

(Pub. L. 110–69, title VII, § 7024(b), Aug. 9, 2007, 121 Stat. 689.)

## REFERENCES IN TEXT

The High-Performance Computing Act of 1991, referred to in par. (1), is Pub. L. 102–194, Dec. 9, 1991, 105 Stat. 1594. Title I of the Act is classified generally to subchapter I (§5511 et seq.) of chapter 81 of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 5501 of Title 15 and Tables.

## CODIFICATION

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

## 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.

## § 1862o–11. Evaluation and report

The Director shall establish metrics to evaluate the success of the programs established by the Foundation for encouraging individuals identified in section 1885a or 1885b of this title to study and prepare for careers in science, technology, engineering, and mathematics, including programs that provide for mentoring for such individuals. The Director shall carry out evaluations based on the metrics developed and report to Congress annually on the findings and conclusions of the evaluations.

(Pub. L. 110–69, title VII, § 7031(b), Aug. 9, 2007, 121 Stat. 711.)

## CODIFICATION

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

## 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.

## § 1862o–12. Hispanic-serving institutions undergraduate program

### (a) In general

The Director is authorized to establish a new program to award grants on a competitive, merit-reviewed basis to Hispanic-serving institutions (as defined in section 1101a of title 20) to enhance the quality of undergraduate science, technology, engineering, and mathematics education at such institutions and to increase the retention and graduation rates of students pursuing associate's or baccalaureate degrees in science, technology, engineering, and mathematics.

### (b) Program components

Grants awarded under this section shall support—

- (1) activities to improve courses and curriculum in science, technology, engineering, and mathematics;
- (2) faculty development;

(3) stipends for undergraduate students participating in research; and

(4) other activities consistent with subsection (a), as determined by the Director.

**(c) Instrumentation**

Funding for instrumentation is an allowed use of grants awarded under this section.

(Pub. L. 110-69, title VII, §7033, Aug. 9, 2007, 121 Stat. 711.)

**CODIFICATION**

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

**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.

**§ 1862o-13. Professional science master's degree programs**

**(a) Clearinghouse**

**(1) Development**

The Director shall establish a clearinghouse, in collaboration with 4-year institutions of higher education (including applicable graduate schools and academic departments), and industries and Federal agencies that employ science-trained personnel, to share program elements used in successful professional science master's degree programs and other advanced degree programs related to science, technology, engineering, and mathematics.

**(2) Availability**

The Director shall make the clearinghouse of program elements developed under paragraph (1) available to institutions of higher education that are developing professional science master's degree programs.

**(b) Programs**

**(1) Programs authorized**

The Director shall award grants to 4-year institutions of higher education to facilitate the institutions' creation or improvement of professional science master's degree programs that may include linkages between institutions of higher education and industries that employ science-trained personnel, with an emphasis on practical training and preparation for the workforce in high-need fields.

**(2) Application**

A 4-year institution of higher education desiring a grant under this section shall submit an application to the Director at such time, in such manner, and accompanied by such information as the Director may require. The application shall include—

(A) a description of the professional science master's degree program that the institution of higher education will implement;

(B) a description of how the professional science master's degree program at the institution of higher education will produce

individuals for the workforce in high-need fields;

(C) the amount of funding from non-Federal sources, including from private industries, that the institution of higher education shall use to support the professional science master's degree program; and

(D) an assurance that the institution of higher education shall encourage students in the professional science master's degree program to apply for all forms of Federal assistance available to such students, including applicable graduate fellowships and student financial assistance under titles IV and VII of the Higher Education Act of 1965 (20 U.S.C. 1070 et seq., 1133 et seq. [and 42 U.S.C. 2751 et seq.]).

**(3) Preferences**

The Director shall give preference in making awards to 4-year institutions of higher education seeking Federal funding to create or improve professional science master's degree programs, to those applicants—

(A) located in States with low percentages of citizens with graduate or professional degrees, as determined by the Bureau of the Census, that demonstrate success in meeting the unique needs of the corporate, non-profit, and government communities in the State, as evidenced by providing internships for professional science master's degree students or similar partnership arrangements; or

(B) that secure more than two-thirds of the funding for such professional science master's degree programs from sources other than the Federal Government.

**(4) Number of grants; time period of grants**

**(A) Number of grants**

Subject to the availability of appropriated funds, the Director shall award grants under paragraph (1) to a maximum of 200 4-year institutions of higher education.

**(B) Time period of grants**

Grants awarded under this section shall be for one 3-year term. Grants may be renewed only once for a maximum of 2 additional years.

**(5) Evaluation and reports**

**(A) Development of performance benchmarks**

Prior to the start of the grant program, the Director, in collaboration with 4-year institutions of higher education (including applicable graduate schools and academic departments), and industries and Federal agencies that employ science-trained personnel, shall develop performance benchmarks to evaluate the pilot programs assisted by grants under this section.

**(B) Evaluation**

For each year of the grant period, the Director, in consultation with 4-year institutions of higher education (including applicable graduate schools and academic departments), and industries and Federal agencies that employ science-trained personnel, shall complete an evaluation of each program as-