

(d) Administration agreements

The Director may enter into an agreement with a qualified third-party entity to administer the fellowships, subject to the provisions of this section.

(e) Authorization of appropriations

There are authorized to be appropriated to the Director a total of \$125,000,000 for fiscal years 2023 through 2027, to carry out the activities outlined in this section.

(Pub. L. 117–167, div. B, title III, §10392, Aug. 9, 2022, 136 Stat. 1588.)

§ 19113. Scholarships and fellowships**(a) In general**

The Director, acting through the Directorate, shall fund undergraduate scholarships (including at community colleges), graduate fellowships and traineeships, and postdoctoral awards in the key technology focus areas.

(b) Implementation

The Director may carry out subsection (a) by making awards—

- (1) directly to students; and
- (2) to institutions of higher education or consortia of institutions of higher education, including those institutions or consortia involved in operating Regional Innovation Engines established under section 19108 of this title.

(c) Broadening participation

In carrying out this section, the Director shall take steps to increase the participation of populations that are underrepresented in STEM, which may include—

- (1) establishing or augmenting programs targeted at populations that are underrepresented in STEM;
- (2) supporting traineeships or other relevant programs at historically Black colleges and universities, Tribal Colleges or Universities, and minority-serving institutions;
- (3) enabling low-income populations to pursue associate, undergraduate, or graduate level degrees in STEM;
- (4) addressing current and expected gaps in the availability or skills of the STEM workforce, or addressing needs of the STEM workforce, including by increasing educational capacity at institutions and by prioritizing awards to United States citizens, permanent residents, and individuals that will grow the domestic workforce; and
- (5) addressing geographic diversity in the STEM workforce.

(d) Encouraging innovation

In carrying out this section, the Director shall encourage innovation in graduate education, including through encouraging institutions of higher education to offer graduate students opportunities to gain experience in industry or Government as part of their graduate training, and through support for students in professional master's programs related to the key technology focus areas or to the societal, national, and geostrategic challenges.

(e) Areas of funding support

Subject to the availability of funds to carry out this section, the Director shall—

(1) issue—

- (A) postdoctoral awards,
- (B) graduate fellowships and traineeships, inclusive of the NSF Research Traineeships and fellowships awarded under the Graduate Research Fellowship Program; and
- (C) scholarships, including undergraduate scholarships, research experiences, and internships, including—
 - (i) scholarships to attend community colleges; and
 - (ii) research experiences and internships under sections 1862p–5, 1862p–6, and 1862p–7 of this title;

(2) ensure that not less than 10 percent of the funds made available to carry out this section are used to support additional awards that focus on community college training, education, and teaching programs that increase the participation of populations that are historically underrepresented in STEM, including technical programs through programs such as the Advanced Technological Education program; and

(3) if funds remain after carrying out paragraphs (1) and (2) make awards to institutions of higher education to enable the institutions to fund the development and establishment of new or specialized programs of study for graduate, undergraduate, or technical college students and the evaluation of the effectiveness of those programs of study.

(f) Low-income scholarship program**(1) In general**

The Director shall award scholarships to low-income individuals to enable such individuals to pursue associate, undergraduate, or graduate level degrees in STEM fields.

(2) Eligibility**(A) In general**

To be eligible to receive a scholarship under this subsection, an individual—

(i) must be a citizen of the United States, a national of the United States (as defined in section 1101(a) of title 8), an alien admitted as a refugee under section 1157 of title 8, or an alien lawfully admitted to the United States for permanent residence;

(ii) shall prepare and submit to the Director an application at such time, in such manner, and containing such information as the Director may require; and

(iii) shall certify to the Director that the individual intends to use amounts received under the scholarship to enroll or continue enrollment at an institution of higher education (as defined in section 1001(a) of title 20) in order to pursue an associate, undergraduate, or graduate level degree in STEM fields designated by the Director.

(B) Ability

Awards of scholarships under this subsection shall be made by the Director solely on the basis of the ability of the applicant, except that in any case in which 2 or more applicants for scholarships are deemed by the Director to be possessed of substantially

equal ability, and there are not sufficient scholarships available to award one to each of such applicants, the available scholarship or scholarships shall be awarded to the applicants in a manner that will tend to result in a geographically wide distribution throughout the United States recipients' places of permanent residence.

(3) Omitted

(4) Authorization

Of amounts authorized for the Directorate for Technology, Innovation, and Partnerships, \$100,000,000 shall be authorized to carry out this subsection.

(g) Existing programs

The Director may use or augment existing STEM education programs of the Foundation and leverage education or entrepreneurial partners to carry out this section.

(Pub. L. 117–167, div. B, title III, §10393, Aug. 9, 2022, 136 Stat. 1589.)

Editorial Notes

REFERENCES IN TEXT

Section 1101(a) of title 8 and section 1157 of title 8, referred to in subsec. (f)(2)(A)(i), were so in the original, but probably should have been references to sections 101(a) and 207 of the Immigration and Nationality Act, act June 27, 1952, ch. 477, which are classified to sections 1101(a) and 1157 of Title 8, Aliens and Nationality.

Section 1001(a) of title 20, referred to in subsec. (f)(2)(A)(iii), was so in the original, but probably should have been a reference to section 101(a) of the Higher Education Act of 1965, Pub. L. 89–329, which is classified to section 1001(a) of Title 20, Education.

CODIFICATION

Section is comprised of section 10393 of Pub. L. 117–167. Subsec. (f)(3) of section 10393 of Pub. L. 117–167 amended section 1869c of this title.

§ 19114. Research and development awards

(a) In general

From amounts made available for the Directorate, the Director shall make awards, on a competitive basis, for research and technology development within the key technology focus areas, including investments that advance solutions to the challenges under section 19107 of this title.

(b) Purpose

The purpose of the awards under this section shall be to accelerate technological advances and technology adoption in the key technology focus areas.

(c) Recipients

Recipients of funds under this section may include institutions of higher education, research institutions, non-profit organizations, private sector entities, consortia, or other entities as defined by the Director.

(d) Metrics

The Director may set metrics, including goals and deadlines, for the development and demonstration of technology as determined in the terms of the award, and may use such metrics to

determine whether an award recipient shall be eligible for continued or follow-on funding.

(e) Short term technology deployment

The Director shall also make awards, including through the SBIR and STTR programs (as defined in section 638(e) of title 15), to expedite short-term technology deployment within a period of no longer than 24 months.

(f) Selection criteria

In selecting recipients for an award under this section, the Director shall consider, at a minimum—

(1) the relevance of the project to the challenges and the key technology focus areas under section 19107 of this title, and the potential of the project to result in transformational advances for such challenges and the key technology focus areas;

(2) the current status of similar technology, the limits of current practice, and the novelty and risks of the proposed project;

(3) the ethical, societal, safety, and security implications relevant to the application of the technology;

(4) the appropriateness of quantitative goals and metrics for evaluating the project and a plan for evaluating those metrics; and

(5) the path for developing and, as appropriate, commercializing the technology into products and processes in the United States.

(g) Authorization of appropriations

From within funds authorized for the Directorate for Technology, Innovation, and Partnerships, there are authorized to carry out the activities under this section \$1,000,000,000 for fiscal years 2023 through 2027.

(Pub. L. 117–167, div. B, title III, §10394, Aug. 9, 2022, 136 Stat. 1591.)

§ 19115. Scaling innovations in PreK–12 STEM education

(a) In general

Taking into consideration the recommendations under section 18991(a)(4) of this title, the Director shall make awards, on a competitive, merit-reviewed basis, to establish multidisciplinary Centers for Transformative Education Research and Translation (in this section referred to as “Centers”) to support research and development on widespread and sustained implementation of STEM education innovations.

(b) Eligibility

The entity seeking an award for a Center under this section must be an institution of higher education, a nonprofit organization, or a consortium of such institutions or organizations, which may include a STEM ecosystem.

(c) Application

An eligible entity under subsection (b) seeking an award under this section shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of how the proposed Center will be used to—

(1) establish partnerships among academic institutions, local or State educational agen-