

(A) for a National Science Foundation Teaching Fellow, the total amount of fellowship award received by the individual under this section while enrolled in the master's degree program, reduced by one-fourth of the total amount for each year of service completed, plus one-half of the total teaching fellowship salary supplements received by such individual under this section, shall be repaid or such amount shall be treated as a loan to be repaid in accordance with section 1862n-1(g)(1)(C) of this title; and

(B) for a National Science Foundation Master Teaching Fellow, the total amount of teaching fellowship salary supplements received by the individual under this section, reduced by one-half, shall be repaid or such amount shall be treated as a loan to be repaid in accordance with section 1862n-1(g)(1)(C) of this title.

(k) STEM teacher service and retention

(1) In general

The Director shall develop and implement practices for increasing the proportion of individuals receiving fellowships under this section who—

(A) fulfill the service obligation required under subsection (h); and

(B) remain in the teaching profession in a high need local educational agency beyond the service obligation.

(2) Practices

The practices described under paragraph (1) may include—

(A) partnering with nonprofit or professional associations or with other government entities to provide individuals receiving fellowships under this section with opportunities for professional development, including mentorship programs that pair those individuals with currently employed and recently retired science, technology, engineering, mathematics, or computer science professionals;

(B) increasing recruitment from high need districts;

(C) establishing a system to better collect, track, and respond to data on the career decisions of individuals receiving fellowships under this section;

(D) conducting research to better understand factors relevant to teacher service and retention, including factors specifically impacting the retention of teachers who are individuals identified in sections 1885a and 1885b of this title; and

(E) conducting pilot programs to improve teacher service and retention.

(Pub. L. 107-368, §10A, as added Pub. L. 110-69, title VII, §7030, Aug. 9, 2007, 121 Stat. 705; amended Pub. L. 111-358, title V, §511, Jan. 4, 2011, 124 Stat. 4010; Pub. L. 114-59, §4(a), Oct. 7, 2015, 129 Stat. 540; Pub. L. 114-329, title III, §301, Jan. 6, 2017, 130 Stat. 3003; Pub. L. 115-303, §2(a)(2), Dec. 11, 2018, 132 Stat. 4399; Pub. L. 116-115, §3(e), Feb. 11, 2020, 134 Stat. 107.)

Editorial Notes

CODIFICATION

Section 7030 of Pub. L. 110-69, which directed that “Section 10 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n-1) is amended to read as follows:” and then set out the text of sections 10 and 10A, was executed by generally amending section 10 and adding a new section 10A (42 U.S.C. 1862n-1a) after section 10, to reflect the probable intent of Congress.

Section was enacted as part of the National Science Foundation Authorization Act of 2002, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

AMENDMENTS

2020—Subsec. (d)(3)(F). Pub. L. 116-115, §3(e)(1), substituted “, individuals” for “and individuals” and inserted “, and veterans” before period at end.

Subsec. (d)(4)(B). Pub. L. 116-115, §3(e)(2), inserted “and veterans” before period at end.

2018—Subsec. (c)(4)(C). Pub. L. 115-303 added subpar. (C).

2017—Subsec. (k). Pub. L. 114-329 added subsec. (k).

2015—Subsec. (a)(2)(B). Pub. L. 114-59, §4(a)(1), inserted “or bachelor’s” after “master’s”.

Subsec. (c)(3). Pub. L. 114-59, §4(a)(2)(B)(i), inserted “for teachers with master’s degrees in their field” after “Teaching Fellowships” in introductory provisions.

Subsec. (c)(4). Pub. L. 114-59, §4(a)(2)(A), (B)(ii), (C), added par. (4).

Subsecs. (e), (f). Pub. L. 114-59, §4(a)(3), substituted “subsection (h)” for “subsection (g)” wherever appearing.

Subsecs. (g) to (j). Pub. L. 114-59, §4(a)(4), (5), added subsec. (g) and redesignated former subsecs. (g) to (i) as (h) to (j), respectively.

2011—Subsec. (a)(2)(A). Pub. L. 111-358, §511(b), inserted “including retiring professionals in those fields,” after “mathematics professionals.”

Subsec. (h)(1). Pub. L. 111-358, §511(a), amended par. (1) generally. Prior to amendment, text read as follows: “An eligible entity receiving a grant under this section shall provide, from non-Federal sources, an amount equal to 50 percent of the amount of the grant (which may be provided in cash or in-kind) to carry out the activities supported by the grant.”

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2018 AMENDMENT

Amendment by Pub. L. 115-303 applicable with respect to grants awarded on or after Oct. 1, 2018, see section 2(b) of Pub. L. 115-303, set out as a note under section 1862n-1 of this title.

§ 1862n-2. Establishment of centers for research on mathematics and science learning and education improvement

(a) Establishment

(1) In general

(A) The Director shall award grants to institutions of higher education or eligible nonprofit organizations (or consortia thereof) to establish multidisciplinary Centers for Research on Learning and Education Improvement.

(B) Grants shall be awarded under this paragraph on a competitive, merit-reviewed basis.

(2) Purpose

The purpose of the Centers shall be to conduct and evaluate research in cognitive science, education, and related fields and to develop ways in which the results of such re-

search can be applied in elementary school and secondary school classrooms to improve the teaching of mathematics and science.

(3) Focus

(A) Each Center shall be focused on a different challenge faced by elementary school or secondary school teachers of mathematics and science. In determining the research focus of the Centers, the Director shall consult with the National Academy of Sciences and the Secretary of Education and take into account the extent to which other Federal programs support research on similar questions.

(B) The proposal solicitation issued by the Director shall state the focus of each Center and applicants shall apply for designation as a specific Center.

(C) At least one Center shall focus on developing ways in which the results of research described in paragraph (2) can be applied, duplicated, and scaled up for use in low-performing elementary schools and secondary schools to improve the teaching and student achievement levels in mathematics and science.

(D) To the extent practicable and relevant to its focus, every Center shall include, as part of its research, work designed to quantitatively assess and improve the ways that information technology is used in the teaching of mathematics and science.

(b) Selection process

(1) Application

An institution of higher education or an eligible nonprofit organization (or a consortium thereof) seeking funding 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—

(A) the initial research projects that will be undertaken by the Center and the process by which new projects will be identified;

(B) how the Center will work with other research institutions and schools to broaden the national research agenda on learning and teaching;

(C) how the Center will promote active collaboration among physical, biological, and social science researchers;

(D) how the Center will promote active participation by elementary and secondary mathematics and science teachers and administrators; and

(E) how the results of the Center's research can be incorporated into educational practices, and how the Center will assess the success of those practices.

(2) Review of applications

In evaluating the applications submitted under paragraph (1), the Director shall consider, at a minimum—

(A) the ability of the applicant to effectively carry out the research program, including the activities described in paragraph (1)(E);

(B) the experience of the applicant in conducting research on the science of teaching and learning and the capacity of the appli-

cant to foster new multidisciplinary collaborations;

(C) the capacity of the applicant to attract elementary school and secondary school teachers from a diverse array of schools, and with diverse professional experiences, for participation in Center activities; and

(D) the capacity of the applicant to attract and provide adequate support for graduate students to pursue research at the intersection of educational practice and basic research on human cognition and learning.

(3) Awards

The Director shall ensure, to the extent practicable, that the Centers funded under this section conduct research and develop educational practices designed to improve the educational performance of a broad range of students, including individuals identified in section 1885a or 1885b of this title.

(c) Annual conference

The Director shall convene an annual meeting of the Centers to foster collaboration among the Centers and to further disseminate the results of the Centers' activities.

(d) Coordination

The Director shall coordinate with the Secretary of Education in—

(1) disseminating the results of the research conducted pursuant to grants awarded under this section to elementary school teachers and secondary school teachers; and

(2) providing programming, guidance, and support to ensure that such teachers—

(A) understand the implications of the research disseminated under paragraph (1) for classroom practice; and

(B) can use the research to improve such teachers' performance in the classroom.

(Pub. L. 107-368, § 11, Dec. 19, 2002, 116 Stat. 3053; Pub. L. 110-69, title VII, § 7006(b), Aug. 9, 2007, 121 Stat. 679.)

Editorial Notes

CODIFICATION

Section was enacted as part of the National Science Foundation Authorization Act of 2002, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

AMENDMENTS

2007—Subsec. (a)(1)(A). Pub. L. 110-69, § 7006(b)(1), inserted “or eligible nonprofit organizations” after “institutions of higher education”.

Subsec. (b)(1). Pub. L. 110-69, § 7006(b)(2), (3), in introductory provisions, inserted “or an eligible nonprofit organization” after “institution of higher education” and substituted “thereof” for “of such institutions”.

Statutory Notes and Related Subsidiaries

FUNDING FOR CENTERS

Pub. L. 110-69, title VII, § 7006(a), Aug. 9, 2007, 121 Stat. 679, provided that: “The Director [of the National Science Foundation] shall continue to carry out the program of Centers for Research on Learning and Education Improvement as established in section 11 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n-2).”

DEFINITIONS

For definitions of terms used in this section, see section 4 of Pub. L. 107-368, set out as a note under section 1862n of this title.

§ 1862n-3. Duplication of programs**(a) In general**

The Director shall review the education programs of the Foundation that are in operation as of December 19, 2002, to determine whether any of such programs duplicate the programs authorized under this Act.

(b) Implementation

As programs authorized under this Act are implemented, the Director shall—

(1) terminate any duplicative program being carried out by the Foundation or merge the duplicative program into a program authorized under this Act; and

(2) not establish any new program that duplicates a program that has been implemented pursuant to this Act.

(c) Report**(1) Review**

The Director of the Office of Science and Technology Policy shall review the education programs of the Foundation to ensure compliance with the provisions of this section.

(2) Submission

Not later than 1 year after December 19, 2002, and annually thereafter as part of the annual Office of Science and Technology Policy's budget submission to Congress, the Director of the Office of Science and Technology Policy shall complete a report on the review carried out under this subsection and shall submit the report to the Committee on Science and the Committee on Appropriations of the House of Representatives, and to the Committee on Commerce, Science, and Transportation, the Committee on Health, Education, Labor, and Pensions, and the Committee on Appropriations of the Senate.

(Pub. L. 107-368, §12, Dec. 19, 2002, 116 Stat. 3054.)

Editorial Notes

REFERENCES IN TEXT

This Act, referred to in subsecs. (a) and (b), is Pub. L. 107-368, Dec. 19, 2002, 116 Stat. 3034, known as the National Science Foundation Authorization Act of 2002. For complete classification of this Act to the Code, see Short Title of 2002 Amendment note set out under section 1861 of this title and Tables.

CODIFICATION

Section was enacted as part of the National Science Foundation Authorization Act of 2002, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

Statutory Notes and Related Subsidiaries

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.

DEFINITIONS

For definitions of terms used in this section, see section 4 of Pub. L. 107-368, set out as a note under section 1862n of this title.

§ 1862n-4. Major research equipment and facilities construction plan**(a) Prioritization of proposed major research equipment and facilities construction****(1) Development of priorities**

The Director shall—

(A) develop a list indicating by number the relative priority for funding under the major research equipment and facilities construction account that the Director assigns to each project the Board has approved for inclusion in a future budget request; and

(B) submit the list described in subparagraph (A) to the Board for approval.

(2) Criteria

The Director shall include in the criteria for developing the list under paragraph (1) the readiness of plans for construction and operation, including confidence in the estimates of the full life-cycle cost (as defined in section 2 of the National Science Foundation Authorization Act of 1998 (42 U.S.C. 1862k note)) and the proposed schedule of completion.

(3) Updates

The Director shall update the list prepared under paragraph (1) each time the Board approves a new project that would receive funding under the major research equipment and facilities construction account and periodically submit any updated list to the Board for approval.

(b) Project management

No national research facility project funded under the major research equipment and facilities construction account shall be managed by an individual whose appointment to the Foundation is temporary.

(c) Board approval of major research equipment and facilities projects

The Board shall explicitly approve any project to be funded out of the major research equipment and facilities construction account before any funds may be obligated from such account for such project.

(Pub. L. 107-368, §14, Dec. 19, 2002, 116 Stat. 3056; Pub. L. 114-329, title II, §204(c), Jan. 6, 2017, 130 Stat. 3000.)

Editorial Notes

REFERENCES IN TEXT

Section 2 of the National Science Foundation Authorization Act of 1998, referred to in subsec. (a)(2), is section 2 of Pub. L. 105-207, July 29, 1998, 112 Stat. 869, which is set out as a note under section 1862k of this title.

CODIFICATION

Section is comprised of section 14 of Pub. L. 107-368. As originally enacted, subsec. (b)(1), (2) of section 14 of