

co-led by a nonprofit organizational entity, that is operating in the United States with the goal of supporting participation in STEM study, activities, and career pathways as defined in the CoSTEM Annual Progress Report of 2020 with a broad range of non-Federal partners.

(Pub. L. 117-167, div. B, title III, § 10302, Aug. 9, 2022, 136 Stat. 1506.)

PART B—STEM EDUCATION

§ 18991. PreK-12 STEM education

(a) National Academies study

Not later than 120 days after August 9, 2022, the Director shall enter into an agreement with the National Academies to conduct a study to—

- (1) review the research literature and identify research gaps regarding the interconnected factors that foster and hinder successful implementation of promising, evidence-based PreK-12 STEM education innovations at the local, regional, and national level;
- (2) present a compendium of promising, evidence-based PreK-12 STEM education practices, models, programs, and technologies;
- (3) identify barriers to widespread and sustained implementation of such innovations; and
- (4) make recommendations to the Foundation, the Department of Education, the National Science and Technology Council's Committee on Science, Technology, Engineering, and Mathematics Education, State and local educational agencies, and other relevant stakeholders on measures to address such barriers.

(b) Omitted

(c) [Log 907 S2522]¹ National STEM Teacher Corps pilot

(1) Purpose

It is the purpose of this subsection to elevate the profession of STEM teaching by establishing a National STEM Teacher Corps pilot program to recognize outstanding STEM teachers in our Nation's classrooms, rewards² them for their accomplishments, elevates³ their public profile, and creates⁴ rewarding career paths to which all STEM teachers can aspire, both to prepare future STEM researchers and to create a scientifically literate public.

(2) Definitions

In this subsection:

(A) Administrator

The term “Administrator” means the Administrator of the National STEM Teacher Corps.

(B) Eligible entity

The term “eligible entity” means—

- (i) an institution of higher education; or
- (ii) a consortium consisting of an institution of higher education and one or more of the following:

(I) A State educational agency (as defined in section 7801 of title 20).

(II) A local educational agency (as defined in section 7801 of title 20).

(III) An education nonprofit Association.

(IV) A cross sector⁵ STEM organization.

(V) A private entity, including a STEM-related business.

(C) High-need school

The term “high-need school” has the meaning given the term in section 6631(b) of title 20.

(D) Professional development

The term “professional Development”⁶ has the meaning given the term in section 7801 of title 20.

(E) Corps Alliance

The term “Corps Alliance” means a regionally or topically based award under this subsection.

(F) National STEM Teacher Corps Advisory Board

The term “National STEM Teacher Corps Advisory Board” means the Advisory Board for the National STEM Teacher Corps established under paragraph (5).

(3) Establishment of National STEM Teacher Corps

The Director may, subject to the availability of appropriations, establish within the Foundation, a National STEM Teacher Corps 10-year pilot program to be administered by the Administrator, who shall be appointed by the Director. As appropriate, the Director may use existing NSF programs to establish and execute this program.

(4) Duties of the Administrator

The Administrator shall—

(A) create a process and standards for selection of eligible applicants to become members of the National STEM Teacher Corps, including—

(i) uniform selection criteria that includes⁷—

(I) deep knowledge of STEM content and pedagogy;

(II) a passion for STEM subjects and dedication to teaching, evidence of leadership skills, and potential for continued career growth as an educator; and

(III) demonstrated experience increasing STEM student achievement and STEM participation rates for all students, particularly those from rural and high-need schools; and

(ii) a uniform selection process, including a comprehensive application that includes recommendations and other relevant professional information;

(B) promote the National STEM Teacher Corps and elevate best practices that emerge

¹ So in original.

² So in original. Probably should be “reward”.

³ So in original. Probably should be “elevate”.

⁴ So in original. Probably should be “create”.

⁵ So in original. Probably should be “cross-sector”.

⁶ So in original. Probably should not be capitalized.

⁷ So in original. Probably should be “include”.

from the National STEM Teacher Corps to a national audience;

(C) evaluate the operation and effectiveness of the Corps alliances; and

(D) evaluate the overall and long-term impact of the National STEM Teacher Corps by—

(i) documenting, monitoring, and assessing the program outcomes or impact on the STEM careers of participants; and

(ii) documenting, monitoring, and assessing the program outcomes for the STEM education profession nationwide, particularly for rural and high-need schools.

(5) National STEM Teacher Corps Advisory Board

(A) Establishment

There is established a National STEM Teacher Corps Advisory Board to advise the Director on matters pertaining to the National STEM Teacher Corps for the length of the pilot program.

(B) Composition

(i) In general

The membership of the National STEM Teacher Corps Advisory Board shall—

(I) be appointed by the Director;

(II) include a representative from each of the following: School leaders, STEM researchers, STEM education researchers, Business leaders, PreK–12 STEM educators, and Students pursuing a post-secondary STEM degree; and

(III) be geographically diverse.

(ii) Existing committee

The Director may assign the duties of the National STEM Teacher Corps Advisory Board to another advisory committee of the Foundation.

(6) Duties of the Corps alliances

Subject to the availability of appropriated funds, the Administrator may make awards on a competitive, merit-review basis, to establish Corps alliances at eligible entities. Activities carried out by such alliances shall include—

(A) engaging local partners, which may include local educational agencies, institutions of higher education, STEM organizations, or education nonprofit organizations, to—

(i) develop and serve the community of National STEM Teacher Corps members within the region or topic area, in coordination with local partners to carry out day-to-day activities;

(ii) coordinate professional development activities, including activities led by National STEM Teacher Corps members;

(iii) connect National STEM Teacher Corps members with existing educator professional development programs and coordinate members' involvement as cooperating teachers or mentors;

(iv) seek opportunities to involve teachers who are not members of the National STEM Teacher Corps to participate in National STEM Teacher Corps activities; and

(v) build partnerships with existing education organizations and other efforts by State educational agencies and local educational agencies that operate programs relevant to the National STEM Teacher Corps and its activities;

(B) recruiting eligible applicants, with a focus on recruiting diverse STEM educators to advance equity based on race, ethnicity, sex, socioeconomic status, age, disability status, geography, and language ability;

(C) screening, interviewing, and selecting members of the National STEM Teacher Corps using procedures and standards provided by the Administrator;

(D) coordinating the online network that supports all National STEM Teacher Corps members in the region or topic area;

(E) convening occasional meetings of National STEM Teacher Corps members in a region or topic area;

(F) creating opportunities for the professional growth of National STEM Teacher Corps members, with a focus on increasing STEM student achievement and STEM participation rates for all students, particularly those from rural and high-need schools; and

(G) supporting the retention and success of National STEM Teacher Corps members in the region or topic area.

(7) Duties of members of the National STEM Teacher Corps

An applicant that is selected by a Corps alliance to be a member of the National STEM Teacher Corps shall—

(A) serve a 4-year term with a possibility of reappointment;

(B) receive an annual stipend in an amount not less than \$10,000; and

(C) have substantial responsibilities, including—

(i) working with other members of the National STEM Teacher Corps to develop and improve innovative teaching practices, including practices such as inquiry-based learning;

(ii) participating in professional development in innovative teaching methodology and mentorship; and

(iii) continuing to excel in teaching the member's own students, with a focus on advancing equity by spending additional time teaching and coaching underserved students to increase STEM student achievement and STEM participation rates for students from rural and high-need schools.

(8) Evaluation

The Director, acting through the Administrator, shall submit a report to Congress after the third year of the pilot program that includes—

(A) an assessment, drawing on the evaluations the Administrator shall conduct under subparagraphs (C) and (D) of paragraph (4), and other sources of information, of the effectiveness of the pilot program in recruiting and retaining high-quality STEM teachers in the selected regions or topic areas,

particularly in high-need and rural schools; and

(B) if deemed effective, a proposal to Congress for permanent implementation of the pilot program.

(9) Sunset

The authority to carry out this subsection shall terminate on the date that is 15 years after August 9, 2022.

(10) Authorization of appropriations

There are authorized to be appropriated \$60,000,000 for each of fiscal years 2023 through 2032 to carry out this subsection.

(Pub. L. 117-167, div. B, title III, §10311, Aug. 9, 2022, 136 Stat. 1510.)

Editorial Notes

CODIFICATION

Section is comprised of section 10311 of div. B of Pub. L. 117-167. Subsec. (b) of section 10311 of div. B of Pub. L. 117-167 amended section 1862q of this title.

§ 18992. Undergraduate STEM education

(a) Research on STEM education and workforce needs

The Director shall make awards, on a competitive basis, to four-year institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to support research and development activities to—

(1) encourage greater collaboration and coordination between institutions of higher education and industry to enhance education, foster hands-on learn experiences, and improve alignment with workforce needs;

(2) understand the current composition of the STEM workforce and the factors that influence growth, retention, and development of that workforce;

(3) increase the size, diversity, capability, and flexibility of the STEM workforce; and

(4) increase dissemination and widespread adoption of effective practices in undergraduate education and workforce development.

(b) Omitted

(c) Innovations in STEM education at community colleges

(1) In general

The Director shall make awards on a merit-reviewed, competitive basis to institutions of higher education or nonprofit organizations (or consortia of such institutions or organizations) to advance research on the nature of learning and teaching at community colleges and to improve outcomes for students who enter the workforce upon completion of their STEM degree or credential or transfer to 4-year institutions, including by—

(A) examining how to scale up successful programs at community colleges that are improving student outcomes in foundational STEM courses;

(B) supporting research on effective STEM teaching practices in community college settings;

(C) designing and developing new STEM curricula;

(D) providing STEM students with hands-on training and research experiences, internships, and other experiential learning opportunities;

(E) increasing access to high quality STEM education through new technologies;

(F) re-skilling or up-skilling incumbent workers for new STEM jobs;

(G) building STEM career and seamless transfer pathways; and

(H) developing novel mechanisms to identify and recruit talent into STEM programs, in particular talent from groups historically underrepresented in STEM.

(2) Partnerships

In carrying out activities under this subsection, the Director shall encourage applications to develop, enhance, or expand cooperative STEM education and training partnerships between institutions of higher education, industry, and labor organizations.

(d) Improving access to STEM education at career and technical education institutions

(1) In general

The Director shall make awards, on a competitive basis, to institutions of higher education (including postsecondary vocational institutions) to support career and technical education in STEM and computer science related fields.

(2) Priority

In making awards under this subsection, the Director shall give priority to institutions that demonstrate effective strategies to recruit and provide career and technical education to veterans and members of the Armed Forces transitioning to the private sector workforce.

(3) Career and technical education defined

In this subsection, the term “career and technical education” has the meaning given that term in section 2302 of title 20.

(e) Course-based undergraduate research experiences

(1) In general

The Director shall carry out a 4-year pilot program under which the Director shall make awards, on a competitive basis, to institutions of higher education and nonprofit organizations (or consortia of such institutions or organizations) to establish a total of not fewer than five Centers to develop and scale up successful models for providing undergraduate students with hands-on, course-based research experiences.

(2) Use of funds

Awards made under this paragraph shall be used to—

(A) develop, assess, and disseminate models for providing undergraduate students with course-based research experiences across STEM disciplines and education levels;

(B) identify and address opportunities and challenges in facilitating implementation