

119<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# S. 3957

To support National Science Foundation education and professional development relating to artificial intelligence.

---

IN THE SENATE OF THE UNITED STATES

MARCH 2, 2026

Mr. MORAN (for himself and Ms. CANTWELL) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

---

## A BILL

To support National Science Foundation education and professional development relating to artificial intelligence.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “NSF AI Education  
5 Act of 2026”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) ESEA TERMS.—The terms “educational  
9 service agency”, “elementary school”, “high school”,  
10 “local educational agency”, “secondary school”,

1 “State educational agency”, and “universal design  
 2 for learning” have the meanings given those terms  
 3 in section 8101 of the Elementary and Secondary  
 4 Education Act of 1965 (20 U.S.C. 7801).

5 (2) ARTIFICIAL INTELLIGENCE; AI.—The term  
 6 “artificial intelligence” or “AI” has the meaning  
 7 given such term in section 5002 of the William M.  
 8 (Mac) Thornberry National Defense Authorization  
 9 Act for Fiscal Year 2021 (15 U.S.C. 9401).

10 (3) COMMUNITY COLLEGE.—The term “commu-  
 11 nity college” means—

12 (A) an institution that is a junior or com-  
 13 munity college, as such term is defined in sec-  
 14 tion 312(f) of the Higher Education Act of  
 15 1965 (20 U.S.C. 1058(f));

16 (B) a degree-granting public institution of  
 17 higher education at which—

18 (i) the highest degree awarded is an  
 19 associate degree; or

20 (ii) an associate degree is the most  
 21 frequently awarded degree;

22 (C) an eligible Tribal College or University;

23 or

1 (D) a branch campus of a four-year public  
2 institution of higher education, if, at such  
3 branch campus—

4 (i) the highest degree awarded is an  
5 associate degree; or

6 (ii) an associate degree is the most  
7 frequently awarded degree.

8 (4) DIRECTOR.—The term “Director” means  
9 the Director of the National Science Foundation.

10 (5) EMERGING RESEARCH INSTITUTION.—The  
11 term “emerging research institution” has the mean-  
12 ing given the term in section 10002 of the Research  
13 and Development, Competition, and Innovation Act  
14 (42 U.S.C. 18901).

15 (6) EPSCoR INSTITUTION.—The term  
16 “EPSCoR institution” means an institution of high-  
17 er education, nonprofit organization, or other insti-  
18 tution located in a jurisdiction eligible to participate  
19 in the Established Program to Stimulate Competi-  
20 tive Research under section 113 of the National  
21 Science Foundation Authorization Act of 1988 (42  
22 U.S.C. 1862g).

23 (7) FOREIGN COUNTRY OF CONCERN.—The  
24 term “foreign country of concern” means a country

1 that is a covered nation, as defined in section  
2 4872(f) of title 10, United States Code.

3 (8) FOREIGN ENTITY OF CONCERN.—The term  
4 “foreign entity of concern” has the meaning given  
5 the term in section 10612 of the Research and De-  
6 velopment, Competition, and Innovation Act (42  
7 U.S.C. 19221).

8 (9) HISTORICALLY BLACK COLLEGE AND UNI-  
9 VERSITY.—The term “historically Black college and  
10 university” has the meaning given the term “part B  
11 institution” in section 322 of the Higher Education  
12 Act of 1965 (20 U.S.C. 1061).

13 (10) INSTITUTION OF HIGHER EDUCATION.—  
14 The term “institution of higher education” has the  
15 meaning given the term in section 101(a) of the  
16 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

17 (11) KEY EMERGING TECHNOLOGIES.—The  
18 term “key emerging technologies” means the tech-  
19 nologies included in the initial list of key technology  
20 focus areas set forth by section 10387(e) of the Re-  
21 search and Development, Competition, and Innova-  
22 tion Act (42 U.S.C. 19107(e)), photonics, and elec-  
23 tronics.

24 (12) LABOR ORGANIZATION.—The term “labor  
25 organization” has the meaning given the term in

1 section 2(5) of the National Labor Relations Act (29  
2 U.S.C. 152(5)).

3 (13) MINORITY-SERVING INSTITUTION.—The  
4 term “minority-serving institution” means an insti-  
5 tution defined in any of paragraphs (1) through (7)  
6 of section 371(a) of the Higher Education Act of  
7 1965 (20 U.S.C. 7801).

8 (14) NATIONAL LABORATORY.—The term “Na-  
9 tional Laboratory” has the meaning given that term  
10 in section 2 of the Energy Policy Act of 2005 (42  
11 U.S.C. 15801).

12 (15) NONPROFIT ORGANIZATION.—The term  
13 “nonprofit organization” means an organization  
14 which is described in section 501(c)(3) of the Inter-  
15 nal Revenue Code of 1986 and exempt from tax  
16 under section 501(a) of such Code.

17 (16) QUANTUM HYBRID COMPUTING.—The  
18 term “quantum hybrid computing” means the use of  
19 quantum computing in conjunction with classical  
20 computing.

21 (17) QUANTUM INFORMATION SCIENCE.—The  
22 term “quantum information science” means the use  
23 of the laws of quantum physics for the storage,  
24 transmission, manipulation, computing, or measure-  
25 ment of information.

1           (18) RURAL-LOCATED INSTITUTION OF HIGHER  
 2 EDUCATION.—The term “rural-located institution of  
 3 higher education” means an institution of higher  
 4 education that is located in or near areas that are  
 5 not classified as urban by the Census Bureau.

6           (19) RURAL-SERVING INSTITUTION OF HIGHER  
 7 EDUCATION.—The term “rural-serving institution of  
 8 higher education” means an institution of higher  
 9 education that—

10                   (A) primarily serves areas that are not  
 11 classified as urban by the Census Bureau; and

12                   (B) offers degrees that are unique and  
 13 helpful to rural regions that are not classified  
 14 as urban by the Census Bureau.

15           (20) STEM.—The term “STEM” means  
 16 science, technology, engineering, and mathematics,  
 17 including computer science.

18           (21) TRIBAL COLLEGE OR UNIVERSITY.—The  
 19 term “Tribal College or University” has the meaning  
 20 given the term in section 316(b) of the Higher Edu-  
 21 cation Act of 1965 (20 U.S.C. 1059c(b)).

22 **SEC. 3. UNDERGRADUATE SCHOLARSHIPS FOR ARTIFICIAL**  
 23 **INTELLIGENCE EDUCATION.**

24           (a) SCHOLARSHIPS RELATED TO AI OR QUANTUM  
 25 HYBRID COMPUTING.—

1           (1) IN GENERAL.—Subject to section 15, the  
2 Director shall award merit- or need-based scholar-  
3 ships to undergraduate students at institutions of  
4 higher education in order to enable such students to  
5 study—

6                   (A) the development, deployment, integra-  
7 tion, or application of artificial intelligence; or

8                   (B) quantum hybrid computing.

9           (2) SCHOLARSHIPS.—Scholarships awarded  
10 under paragraph (1) shall be in the form of annual  
11 grant awards for not more than a 4-year period in  
12 amounts that cover the cost of tuition, education-re-  
13 lated fees, and a stipend. Such scholarships shall be  
14 paid directly to the institution of higher education in  
15 which the student is enrolled.

16           (b) SCHOLARSHIPS RELATED TO AI AND AGRI-  
17 CULTURE.—

18           (1) IN GENERAL.—Subject to section 15, the  
19 Director shall award merit- or need-based scholar-  
20 ships to undergraduate students at institutions of  
21 higher education in order to enable such students to  
22 study—

23                   (A) artificial intelligence and agriculture;

24                   or

1 (B) the integration of artificial intelligence  
2 into agricultural operations, prediction, and de-  
3 cisionmaking.

4 (2) PRIORITY.—In awarding scholarships under  
5 this subsection, the Director shall give preference to  
6 students who are attending rural-located institutions  
7 of higher education, rural-serving institutions of  
8 higher education, Tribal Colleges or Universities, or  
9 minority-serving institutions (including historically  
10 Black colleges and universities).

11 (3) SCHOLARSHIPS.—Scholarships awarded  
12 under paragraph (1) shall be in the form of annual  
13 grant awards for not more than a 4-year period in  
14 amounts that cover the cost of tuition, education-re-  
15 lated fees, and a stipend. Such scholarships shall be  
16 paid directly to the institution of higher education in  
17 which the student is enrolled.

18 (c) SCHOLARSHIPS RELATED TO AI AND EDU-  
19 CATION.—

20 (1) IN GENERAL.—Subject to section 15, the  
21 Director shall award merit- or need-based scholar-  
22 ships to undergraduate students at institutions of  
23 higher education in order to enable such students to  
24 study the teaching of artificial intelligence and artifi-  
25 cial intelligence skills at elementary schools, sec-

1       ondary schools, career and technical education  
2       schools, institutions of higher education, or through  
3       other higher education and professional education  
4       programs.

5           (2) SCHOLARSHIPS.—Scholarships awarded  
6       under paragraph (1) shall be in the form of annual  
7       grant awards for not more than a 4-year period that  
8       cover the cost of tuition, education-related fees, and  
9       a stipend. Such scholarships shall be paid directly to  
10      the institution of higher education in which the stu-  
11      dent is enrolled.

12      (d) SCHOLARSHIPS RELATED TO AI AND ADVANCED  
13      MANUFACTURING.—

14           (1) IN GENERAL.—Subject to section 15, the  
15      Director shall award merit- or need-based scholar-  
16      ships to undergraduate students at institutions of  
17      higher education in order to enable such students to  
18      study—

19           (A) artificial intelligence and advanced  
20      manufacturing; or

21           (B) the integration of artificial intelligence  
22      into advanced manufacturing operations.

23           (2) SCHOLARSHIPS.—Scholarships awarded  
24      under paragraph (1) shall be in the form of annual  
25      grant awards for a 4-year period that cover the cost

1 of tuition, education-related fees, and a stipend.  
2 Such scholarships shall be paid directly to the insti-  
3 tution of higher education in which the student is  
4 enrolled.

5 (e) METHOD.—The Director may carry out this sec-  
6 tion by making awards through new or existing programs.

7 **SEC. 4. GRADUATE SCHOLARSHIPS FOR ARTIFICIAL INTEL-**  
8 **LIGENCE EDUCATION.**

9 (a) GRADUATE SCHOLARSHIPS RELATED TO AI OR  
10 QUANTUM HYBRID COMPUTING.—Subject to section 15,  
11 the Director shall award merit- or need-based scholarships  
12 to graduate students at institutions of higher education  
13 in order to enable such students to study—

14 (1) the development, deployment, integration,  
15 or application of artificial intelligence; or

16 (2) quantum hybrid computing.

17 (b) SCHOLARSHIPS RELATED TO AI AND AGRI-  
18 CULTURE.—

19 (1) IN GENERAL.—Subject to section 15, the  
20 Director shall award merit- or need-based scholar-  
21 ships to graduate students at institutions of higher  
22 education in order to enable such students to  
23 study—

24 (A) artificial intelligence and agriculture;

25 or

1 (B) the integration of artificial intelligence  
2 into agricultural operations, prediction, and de-  
3 cisionmaking.

4 (2) PRIORITY.—In awarding scholarships under  
5 this subsection, the Director shall give preference to  
6 students who are attending rural-located institutions  
7 of higher education, rural-serving institutions of  
8 higher education, Tribal Colleges or Universities, or  
9 minority-serving institutions (including historically  
10 Black colleges and universities).

11 (c) GRADUATE SCHOLARSHIPS RELATED TO AI AND  
12 EDUCATION.—Subject to section 15, the Director shall  
13 award merit- or need-based scholarships to graduate stu-  
14 dents at institutions of higher education in order to enable  
15 such students to study the teaching of artificial intel-  
16 ligence and artificial intelligence skills at elementary  
17 schools, secondary schools, career and technical education  
18 schools, institutions of higher education, or through other  
19 higher education and professional education programs.

20 (d) GRADUATE SCHOLARSHIPS RELATED TO AI AND  
21 ADVANCED MANUFACTURING.—Subject to section 15, the  
22 Director shall award merit- or need-based scholarships to  
23 graduate students at institutions of higher education in  
24 order to enable such students to study—

1           (1) artificial intelligence and advanced manu-  
2           facturing; or

3           (2) the integration of artificial intelligence into  
4           advanced manufacturing operations.

5           (e) SCHOLARSHIPS.—Scholarships awarded under  
6 this section shall be in the form of annual grant awards  
7 for not more than a 3-year period that cover the cost of  
8 tuition, education-related fees, and a stipend. Such schol-  
9 arships shall be paid directly to the institution of higher  
10 education in which the student is enrolled.

11          (f) METHOD.—The Director may carry out this sec-  
12 tion by making awards through new or existing programs.

13 **SEC. 5. NSF ARTIFICIAL INTELLIGENCE PROFESSIONAL DE-**  
14 **VELOPMENT FELLOWSHIPS.**

15          (a) IN GENERAL.—Subject to section 15, the Direc-  
16 tor shall establish a program to promote the exchange of  
17 ideas and encourage collaborations between institutions of  
18 higher education and industry partners in the fields of ar-  
19 tificial intelligence and key emerging technologies, includ-  
20 ing through fellowships for students, teachers, faculty at  
21 institutions of higher education, and industry profes-  
22 sionals.

23          (b) FELLOWSHIPS.—

24           (1) IN GENERAL.—The Director shall award  
25           merit-based fellowships for professionals for profes-

1 sional development programs in STEM fields or the  
2 field of education that are administered by or affili-  
3 ated with institutions of higher education, in order  
4 to enable fellowship recipients to attain skills or  
5 training in AI-related subjects, including—

6 (A) the development, deployment, integra-  
7 tion, or application of artificial intelligence;

8 (B) prompt engineering; or

9 (C) quantum hybrid computing.

10 (2) FELLOWSHIP AWARDS.—Awards under this  
11 subsection shall be in the form of one annual award  
12 that covers the cost of tuition, education-related  
13 fees, and a stipend. Such awards shall be paid di-  
14 rectly to the institution of higher education that ad-  
15 ministers, or that is affiliated with, the program in  
16 which the fellowship recipient is participating.

17 (c) APPLICATION.—An applicant for a fellowship  
18 under this section shall submit to the Director an applica-  
19 tion at such time, in such manner, and containing such  
20 information as the Director may require. The Director  
21 shall set minimum standards for participation in the fel-  
22 lowship program established under this section.

23 (d) METHOD.—The Director may carry out this sec-  
24 tion through new or existing programs.

1 **SEC. 6. ARTIFICIAL INTELLIGENCE TRAINING FOR LAND-**  
2 **GRANT COLLEGES AND UNIVERSITIES.**

3 (a) IN GENERAL.—Subject to section 15, the Sec-  
4 retary of Agriculture, acting through the Director of the  
5 National Institute of Food and Agriculture, in collabora-  
6 tion with the Director of the National Science Foundation,  
7 shall award grants to land-grant colleges and universities  
8 (as defined in section 1404 of the National Agricultural  
9 Research, Extension, and Teaching Policy Act of 1977 (7  
10 U.S.C. 3103)) for artificial intelligence in agriculture.

11 (b) USE OF FUNDS.—A grant awarded under this  
12 section may be used for—

13 (1) research and development on the use of ar-  
14 tificial intelligence in agriculture or the integration  
15 of artificial intelligence into agricultural operations,  
16 predictions, and decision making;

17 (2) the dissemination of educational resources  
18 for artificial intelligence in rural areas; and

19 (3) acquisition and deployment of artificial in-  
20 telligence tools for agriculture.

21 (c) METHOD.—The Director may carry out this sec-  
22 tion through new or existing programs.

23 **SEC. 7. QUANTUM FELLOWSHIPS AND SCHOLARSHIPS.**

24 (a) IN GENERAL.—The Director may establish or use  
25 existing programs to support fellowships and scholarships

1 for students at institutions of higher education for the  
2 purpose of—

3           (1) increasing quantum information science, en-  
4           gineering, and technology exposure for under-  
5           graduate and graduate STEM students; and

6           (2) increasing post-graduation employment op-  
7           portunities for STEM students who demonstrate in-  
8           terest in pursuing careers in quantum information  
9           science, engineering, and technology, or fields that  
10          support the quantum industry.

11          (b) REQUIREMENT.—Eligible participants in the fel-  
12          lowship and scholarship program shall be enrolled in or  
13          have graduated from a STEM degree program at an insti-  
14          tution of higher education.

15          (c) CONSIDERATIONS.—Eligible fellowships and  
16          scholarships may include temporary quantum-related posi-  
17          tions at State or Federal agencies, National Laboratories,  
18          private sector entities, institutions of higher education, or  
19          other quantum-relevant entities, as determined appro-  
20          priate by the Director.

21          (d) COMPETITIVE AWARDS.—Fellowships and schol-  
22          arships shall be competitively awarded through a merit-  
23          review process. The Director may prioritize fellowships  
24          that include an industry partner that provides financial  
25          assistance to the applicant for direct or indirect costs.

1 (e) FELLOWS IN FEDERAL AGENCIES SUBJECT TO  
 2 OMB ETHICS REQUIREMENTS.—An individual partici-  
 3 pating in a fellowship with an assignment at a Federal  
 4 agency shall be subject to the ethics requirements pre-  
 5 scribed by the Director of the Office of Management and  
 6 Budget that apply to an employee of such agency.

7 (f) METHOD.—The Director may carry out this sec-  
 8 tion through new or existing programs.

9 **SEC. 8. NSF OUTREACH CAMPAIGN.**

10 (a) IN GENERAL.—Subject to section 15, the Direc-  
 11 tor shall carry out a nationwide outreach campaign to stu-  
 12 dents, teachers, principals, and other school leaders at ele-  
 13 mentary schools, secondary schools, career and technical  
 14 education schools, institutions of higher education, or  
 15 through other higher education and professional education  
 16 programs to increase awareness about AI or quantum edu-  
 17 cation opportunities at the National Science Foundation.

18 (b) PRIORITY.—In carrying out such campaign, the  
 19 Director shall prioritize outreach to underserved and rural  
 20 areas.

21 (c) METHOD.—The Director may carry out this sec-  
 22 tion through new or existing programs.

23 **SEC. 9. COMMUNITY COLLEGE AND VOCATIONAL SCHOOL**  
 24 **CENTERS OF AI EXCELLENCE.**

25 (a) DEFINITIONS.—In this section:

1           (1) AREA CAREER AND TECHNICAL EDUCATION  
2 SCHOOL.—The term “area career and technical edu-  
3 cation school” has the meaning given the term in  
4 section 3 of the Carl D. Perkins Career and Tech-  
5 nical Education Act of 2006 (20 U.S.C. 2302).

6           (2) ELIGIBLE APPLICANT.—The term “eligible  
7 applicant” means a community college, vocational  
8 school, or area career and technical education school  
9 in partnership with 1 or more of the following:

10                   (A) A Federal, State, local, or Tribal gov-  
11 ernment entity.

12                   (B) An institution of higher education.

13                   (C) An entity in private industry.

14                   (D) An economic development organization  
15 or venture development organization.

16                   (E) A labor organization or a nonprofit or-  
17 ganization if such organization partners with an  
18 entity described in any of subparagraphs (A)  
19 through (D).

20           (3) VENTURE DEVELOPMENT ORGANIZATION.—  
21 The term “venture development organization” has  
22 the meaning given the term in section 27(a) of the  
23 Stevenson-Wydler Act of 1980 (15 U.S.C. 3722(a)).

24           (4) VOCATIONAL SCHOOL.—The term “voca-  
25 tional school” has the meaning given the term “post-

1 secondary vocational institution” in section 102(c) of  
2 the Higher Education Act of 1965 (20 U.S.C.  
3 1002(c)).

4 (b) ESTABLISHMENT OF CENTERS OF AI EXCEL-  
5 LENCE.—Subject to section 15, the Director, in coordina-  
6 tion with the Regional Technology Hubs program at the  
7 Department of Commerce and the Regional Innovation  
8 Engines program at the National Science Foundation,  
9 shall choose not less than 5 regionally and geographically  
10 diverse eligible applicants to be designated as Community  
11 College and Vocational School Centers of AI Excellence  
12 (referred to in this section as “Centers of AI Excellence”).

13 (c) EPSCoR STATE PARTICIPATION.—Not less than  
14 20 percent of designated Community College and Voca-  
15 tional School Centers of AI Excellence shall be eligible ap-  
16 plicants that are located in a State jurisdiction eligible to  
17 participate in the National Science Foundation’s Estab-  
18 lished Program to Stimulate Competitive Research under  
19 section 113 of the National Science Foundation Author-  
20 ization Act of 1988 (42 U.S.C. 1862g).

21 (d) APPLICATION.—An eligible applicant that desires  
22 to be designated as a Center of AI Excellence shall submit  
23 an application to the Director at such time, in such man-  
24 ner, and containing such information as the Director may  
25 reasonably require. Such application shall specify a focus

1 area or areas for the Center of AI Excellence, which may  
2 be any of the following:

3 (1) AI education and training related to agri-  
4 culture.

5 (2) AI education and training related to manu-  
6 facturing.

7 (3) AI education and training related to appli-  
8 cations of AI-based technology and AI literacy.

9 (4) AI education and training related to an-  
10 other focus area as specified by the eligible appli-  
11 cant.

12 (e) ACTIVITIES.—A designated Center of AI Excel-  
13 lence shall develop and disseminate information about best  
14 practices for—

15 (1) artificial intelligence research and education  
16 at community colleges and area career and technical  
17 education schools;

18 (2) methods to scale up successful programs  
19 that perform research or provide education on artifi-  
20 cial intelligence at community colleges and area ca-  
21 reer and technical education schools;

22 (3) providing hands-on research opportunities  
23 on artificial intelligence and learning opportunities  
24 for students that are enabled through artificial intel-  
25 ligence; and

1           (4) identifying pathways to employment for stu-  
2           dents that are enabled by artificial intelligence.

3           (f) PERFORMANCE MEASUREMENT, TRANSPARENCY,  
4           AND ACCOUNTABILITY.—

5           (1) METRICS, STANDARDS AND ASSESSMENT.—

6           The Director, in coordination with the Regional  
7           Technology Hubs program at the Department of  
8           Commerce and the Regional Innovation Engines pro-  
9           gram at the National Science Foundation, shall de-  
10          velop metrics to assess, and shall assess, the effec-  
11          tiveness of each designated Center of AI Excellence  
12          in carrying out the activities described in subsection  
13          (e).

14          (2) FINAL REPORTS BY RECIPIENTS OF STRAT-  
15          EGY IMPLEMENTATION GRANTS AND COOPERATIVE  
16          AGREEMENTS.—The Director shall require each  
17          Center of AI Excellence designated under this sec-  
18          tion to submit to the Director a report on the activi-  
19          ties of the Center of AI Excellence that are sup-  
20          ported by Federal funds or Federal cooperative  
21          agreements.

22          (g) ANNUAL REPORTS TO CONGRESS.—Not less fre-  
23          quently than once each year, the Director shall submit to  
24          the appropriate committees of Congress an annual report  
25          on the results of the assessments conducted by the Direc-

1 tor under subsection (f)(1) during the period covered by  
2 the report.

3 (h) METHOD.—The Director may carry out this sec-  
4 tion through new or existing programs.

5 (i) SUNSET.—The section shall cease to be effective,  
6 and the activities authorized under this section shall ter-  
7minate on the date that is 7 years after the date of enact-  
8ment of this Act.

9 **SEC. 10. AWARD PROGRAM FOR RESEARCH ON AI IN EDU-**  
10 **CATION.**

11 (a) ELIGIBLE ENTITY.—In this section, the term “el-  
12igible entity” means—

13 (1) an institution of higher education;

14 (2) a nonprofit organization; or

15 (3) a consortium of 1 or more institutions of  
16 higher education or a nonprofit organization and 1  
17 or more private entities.

18 (b) PROGRAM AUTHORIZED.—

19 (1) IN GENERAL.—Subject to section 15, the  
20 Director shall make awards, on a competitive, merit-  
21 reviewed basis, to eligible entities, to enable the eligi-  
22 ble entities to promote research on teaching models,  
23 tools, and materials for artificial intelligence and in-  
24 tegration with other key emerging technologies, such  
25 as quantum information science and technologies

1 and photonics, with a focus on teaching and learning  
2 for elementary school and secondary school students  
3 who are from low-income, rural, or Tribal popu-  
4 lations.

5 (2) METHOD.—The Director may carry out this  
6 section by making awards through new or existing  
7 programs.

8 (c) APPLICATION.—

9 (1) IN GENERAL.—An eligible entity that de-  
10 sires to receive an award under this section shall  
11 submit an application to the Director at such time,  
12 in such manner, and containing such information as  
13 the Director may require.

14 (2) CONTENTS.—An application described in  
15 paragraph (1) shall include—

16 (A) a description of the student demo-  
17 graphics on which the research supported under  
18 the award intends to focus;

19 (B) a description of any regional partner-  
20 ships the eligible entity plans to utilize to carry  
21 out the award;

22 (C) a description of how such research ac-  
23 tivity or activities may inform efforts to pro-  
24 mote the engagement and achievement of ele-  
25 mentary school and secondary school students

1 in artificial intelligence and other key emerging  
2 technologies, such as quantum information  
3 science and technologies and photonics;

4 (D) with respect to an application that  
5 concerns the use or integration of artificial in-  
6 telligence, a description of potential ethical con-  
7 cerns and implications of teacher and student  
8 interactions with artificial intelligence systems;

9 (E) a description of how the research on  
10 teaching models, tools, and materials were de-  
11 veloped in consultation with other educators,  
12 academia, and private sector organizations; and

13 (F) such other information as the Director  
14 may require.

15 (d) USE OF AWARD FUNDS.—An eligible entity that  
16 receives an award under this section shall carry out a pro-  
17 gram described in subsection (b)(1) that—

18 (1) emphasizes preparing and providing profes-  
19 sional development to teachers, principals, and other  
20 school leaders to help them integrate artificial intel-  
21 ligence, key emerging technologies, and computa-  
22 tional thinking in teaching and learning; and

23 (2) supports research to develop, pilot, fully im-  
24 plement, or test areas, such as—

1 (A) evidence-based instructional materials  
 2 and high-quality learning opportunities for  
 3 teaching artificial intelligence and key emerging  
 4 technologies;

5 (B) models for the preparation of new  
 6 teachers who will teach artificial intelligence  
 7 and key emerging technologies;

8 (C) scalable models of professional develop-  
 9 ment and ongoing support for teachers, prin-  
 10 cipals, and other school leaders; and

11 (D) tools and models for teaching and  
 12 learning aimed at supporting student access to  
 13 and utilization of artificial intelligence and key  
 14 emerging technologies across diverse popu-  
 15 lations, including low-income, rural, and Tribal  
 16 populations.

17 **SEC. 11. NATIONAL SCIENCE FOUNDATION AWARDS FOR**  
 18 **ARTIFICIAL INTELLIGENCE RESOURCES.**

19 (a) DEFINITIONS.—In this section:

20 (1) ELIGIBLE ENTITY.—The term “eligible enti-  
 21 ty” means—

22 (A) a State educational agency, local edu-  
 23 cational agency, or educational service agency;

24 (B) an institution of higher education, in-  
 25 cluding—

- 1 (i) an emerging research institution;
- 2 (ii) an EPSCoR institution;
- 3 (iii) a minority-serving institution;
- 4 (iv) a historically Black college or uni-
- 5 versity;
- 6 (v) a Tribal College or University; or
- 7 (vi) a community college; or
- 8 (C) a technical and vocational school.

9 (2) TECHNICAL AND VOCATIONAL SCHOOL.—

10 The term “technical and vocational school” has the  
11 meaning given the term “area career and technical  
12 school” in section 3 of the Carl D. Perkins Career  
13 and Technical Education Act of 2006 (20 U.S.C.  
14 2302).

15 (b) AWARDS AUTHORIZED.—Subject to section 15,  
16 the Director shall make awards to eligible entities to en-  
17 able the eligible entities to provide or increase access to  
18 artificial intelligence tools and applications to the students  
19 and researchers served by the eligible entities.

20 (c) PREFERENCE.—In making awards under sub-  
21 section (b), the Director shall give preference to eligible  
22 entities that—

- 23 (1) expand the geographic diversity of funded
- 24 entities; or

1           (2) are emerging research institutions, EPSCoR  
2           institutions, minority-serving institutions, historically  
3           Black colleges and universities, Tribal Colleges or  
4           Universities, community colleges, or technical and  
5           vocational schools.

6           (d) METHOD.—The Director may carry out this sec-  
7           tion through new or existing programs.

8   **SEC. 12. GUIDANCE FOR THE INTRODUCTION AND USE OF**  
9                           **ARTIFICIAL INTELLIGENCE IN ELEMENTARY**  
10                          **AND SECONDARY EDUCATION.**

11          (a) IN GENERAL.—Not later than 2 years after the  
12          date of enactment of this Act, the Director, in coordina-  
13          tion with the Secretary of Education, the Director of the  
14          Institute of Education Sciences, the Director of the Na-  
15          tional Institute of Standards and Technology, and the Di-  
16          rector of the Office of Science and Technology Policy, shall  
17          develop and make publicly available guidance for the intro-  
18          duction and use of artificial intelligence in elementary and  
19          secondary education.

20          (b) CONSIDERATIONS.—The guidance required under  
21          subsection (a) shall include—

22                  (1) considerations for—

23                          (A) the use of artificial intelligence in ele-  
24                          mentary and secondary education in rural areas  
25                          and economically distressed areas; and

1 (B) the differing applications of artificial  
2 intelligence in STEM and the liberal arts; and  
3 (2) a description of how the guidance was devel-  
4 oped in consultation with educators, academia, and  
5 private sector organizations.

6 **SEC. 13. NSF GRAND CHALLENGES RELATING TO ARTIFI-**  
7 **CIAL INTELLIGENCE EDUCATION AND TRAIN-**  
8 **ING.**

9 (a) GRAND CHALLENGE.—The term “grand chal-  
10 lenge” means a prize competition under section 24 of the  
11 Stevenson-Wydler Technology Innovation Act of 1980 (15  
12 U.S.C. 3719).

13 (b) IN GENERAL.—Subject to section 15, the Direc-  
14 tor, in coordination with the Secretaries of Labor and  
15 Education, shall support grand challenges to stimulate in-  
16 novation regarding—

17 (1) how to train 1,000,000 or more workers, in-  
18 cluding educators, technical and vocational workers,  
19 and professionals, in the United States by 2030 in  
20 areas related to the creation, deployment, or use of  
21 artificial intelligence, such as foundational knowl-  
22 edge, critical thinking, programming skills, machine  
23 learning, or deep learning;

1           (2) how to overcome barriers in the develop-  
2           ment of the artificial intelligence education and  
3           training;

4           (3) methods and strategies for creating artifi-  
5           cial intelligence education and training that does not  
6           displace workers, including teachers, in the work-  
7           force;

8           (4) ways to increase the number of women who  
9           receive artificial intelligence education and training;  
10          and

11          (5) how to ensure rural areas of the United  
12          States are able to benefit from artificial intelligence  
13          education and training.

14          (c) METHOD.—The Director may carry out this sec-  
15          tion through new or existing programs.

16 **SEC. 14. CRITERIA ON APPROPRIATENESS OF GIFT AC-**  
17 **CEPTANCE; PRINCIPLES FOR PUBLIC-PRI-**  
18 **VATE PARTNERSHIPS.**

19          (a) CRITERIA FOR DETERMINING APPROPRIATENESS  
20          OF GIFT ACCEPTANCE.—

21               (1) IN GENERAL.—Not later than 180 days  
22               after the date of enactment of this Act, the Director  
23               shall establish the criteria to be used in determining  
24               whether the acceptance of contributions of money,  
25               services, use of facilities, or personal property under

1 this Act would reflect unfavorably upon the ability of  
2 the National Science Foundation, or any employee of  
3 the National Science Foundation, to carry out its re-  
4 sponsibilities or official duties in a fair, objective,  
5 and transparent manner, or would compromise the  
6 integrity or the appearance of the integrity of its  
7 programs or any official involved in those programs.

8 (2) REQUIREMENTS.—

9 (A) VERIFICATION.—

10 (i) DEFINED TERM.—In this subpara-  
11 graph, the term “entity meeting the defini-  
12 tion of foreign ownership, control, or influ-  
13 ence” means, with respect to a United  
14 States entity—

15 (I) a foreign interest has the  
16 power to direct or decide matters af-  
17 fecting such entity’s management or  
18 operations in a manner that could—

19 (aa) result in unauthorized  
20 access to classified information;  
21 or

22 (bb) adversely affect the per-  
23 formance of a contract or agree-  
24 ment requiring access to classi-  
25 fied information; and

1 (II) the foreign interest is—

2 (aa) exercising such power  
3 directly or indirectly;

4 (bb) exercising such power  
5 through ownership of such enti-  
6 ty's securities, by contractual ar-  
7 rangements, or other similar  
8 means;

9 (cc) exercising such power  
10 through its ability to control or  
11 influence the election or appoint-  
12 ment of 1 or more members to  
13 the entity's governing board; or

14 (dd) capable of exercising  
15 such power.

16 (ii) IN GENERAL.—The Director,  
17 working with relevant Federal agencies,  
18 shall require that any criteria established  
19 pursuant to paragraph (1) include a means  
20 to verify that no contribution has any ties  
21 to a foreign entity of concern, a foreign  
22 country of concern, or an entity meeting  
23 the definition of foreign ownership, control,  
24 or influence.

1           (B) PROHIBITION.—The criteria estab-  
2           lished pursuant to paragraph (1) shall include  
3           a prohibition on the receipt of funding pursuant  
4           to the National Science Foundation’s gift au-  
5           thority from either a foreign country of concern  
6           or a foreign entity of concern.

7           (3) REVIEW OF EXISTING RULES.—To the ex-  
8           tent the criteria described in paragraph (1) have al-  
9           ready been established, the Director shall—

10           (A) conduct a review of the existing cri-  
11           teria;

12           (B) update the criteria as necessary to sat-  
13           isfy the requirements under this subsection; and

14           (C) include, in the report under paragraph  
15           (4), an explanation of the existing criteria and  
16           any changes made to the criteria resulting from  
17           the Director’s review.

18           (4) REPORT.—The Director shall submit a re-  
19           port on the criteria established under this subsection  
20           to the Committee on Commerce, Science, and Trans-  
21           portation and the Committee on Health, Education,  
22           Labor, and Pensions of the Senate and the Com-  
23           mittee on Education and Workforce and the Com-  
24           mittee on Science, Space, and Technology of the  
25           House of Representatives.

1 (b) PRINCIPLES FOR PUBLIC-PRIVATE PARTNER-  
2 SHIPS.—

3 (1) IN GENERAL.—The Director shall establish  
4 principles to guide the National Science Founda-  
5 tion’s formation of public-private partnerships under  
6 this Act to help ensure that such partnerships are  
7 aligned with the National Science Foundation’s stat-  
8 utory obligations and do not reflect unfavorably  
9 upon the ability of the National Science Foundation  
10 or any employee of the National Science Foundation,  
11 to carry out its responsibilities or official duties in  
12 a fair, objective, and transparent manner, or com-  
13 promise the integrity or the appearance of the integ-  
14 rity of its programs or any official involved in those  
15 programs.

16 (2) REVIEW OF EXISTING PRINCIPLES.—To the  
17 extent the principles described in paragraph (1) have  
18 already been established, the Director shall—

19 (A) conduct a review of the existing prin-  
20 ciples;

21 (B) update the principles as necessary to  
22 satisfy the requirements under paragraph (1);  
23 and

24 (C) include, in the report under paragraph  
25 (3), an explanation of the existing principles

1           and any changes made to the principles result-  
2           ing from the Director's review.

3           (3) REPORT.—The Director shall submit a re-  
4           port on the principles established under this sub-  
5           section to the Committee on Commerce, Science, and  
6           Transportation and the Committee on Health, Edu-  
7           cation, Labor, and Pensions of the Senate and the  
8           Committee on Education and Workforce and the  
9           Committee on Science, Space, and Technology of the  
10          House of Representatives.

11 **SEC. 15. ACTIVITIES SUBJECT TO FUNDING.**

12          The activities under this Act that are subject to this  
13          section shall only be required if sufficient funds are either  
14          appropriated by Congress or made available to carry out  
15          those respective requirements.

16 **SEC. 16. RESEARCH SECURITY.**

17          The activities authorized under this Act shall be car-  
18          ried out in accordance with the provision of subtitle D of  
19          title VI of the Research and Development, Competition,  
20          and Innovation Act (42 U.S.C. 19231 et seq.) and section  
21          223 of the William M. (Mac) Thornberry National De-  
22          fense Authorization Act for Fiscal Year 2021 (42 U.S.C.  
23          6605).

1 **SEC. 17. WORKFORCE FRAMEWORKS FOR CRITICAL AND**  
2 **EMERGING TECHNOLOGIES.**

3 (a) DEFINITIONS.—

4 (1) IN GENERAL.—In this section, the terms  
5 “competencies”, “workforce categories”, and “work-  
6 force framework” have the meanings given such  
7 terms in subsection (f) of section 2 of the National  
8 Institute of Standards and Technology Act (15  
9 U.S.C. 272), as added by paragraph (2) of this sub-  
10 section.

11 (2) AMENDMENT TO NIST ACT.—Section 2 of  
12 such Act (15 U.S.C. 272) is amended by adding at  
13 the end the following:

14 “(f) DEFINITIONS.—In this section:

15 “(1) COMPETENCIES.—The term ‘competencies’  
16 means knowledge and skills.

17 “(2) WORKFORCE CATEGORIES.—The term  
18 ‘workforce categories’ means a high-level grouping of  
19 tasks across an organization as defined by work  
20 roles within the category.

21 “(3) WORKFORCE FRAMEWORK.—The term  
22 ‘workforce framework’ means a common taxonomy  
23 and lexicon for any given domain that includes the  
24 building blocks of tasks, knowledge, or skills that  
25 can be structured to form work roles or competency  
26 areas.”.

1           (b) EXPANSION OF FUNCTIONS OF DIRECTOR OF NA-  
2 TIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY TO  
3 INCLUDE WORKFORCE FRAMEWORKS FOR CRITICAL AND  
4 EMERGING TECHNOLOGIES.—Section 2(b) of such Act  
5 (15 U.S.C. 272(b)) is amended—

6           (1) in paragraph (12), by striking “; and” and  
7 inserting a semicolon;

8           (2) in paragraph (13), by striking the period at  
9 the end and inserting “; and”; and

10           (3) by adding at the end the following:

11           “(14)(A) to develop, maintain, and provide in-  
12 dustry, government, research, nonprofit, labor orga-  
13 nizations, and educational institutions with work-  
14 force frameworks for critical and emerging tech-  
15 nologies and other science, technology, engineering,  
16 and mathematics domains for the purpose of bol-  
17 stering scientific and technical education, training,  
18 and workforce development;

19           “(B) at least once every 3 years—

20           “(i) to determine if an update to any work-  
21 force framework, or its components or associ-  
22 ated materials, including work roles or com-  
23 petency areas, provided pursuant to subpara-  
24 graph (A) are appropriate; and

1           “(ii) if the Director determines it is appro-  
2           priate under clause (i), to update such frame-  
3           works and components;

4           “(C) consider including in all workforce frame-  
5           works, or associated materials—

6           “(i) relevant professional skills or employ-  
7           ability skills;

8           “(ii) relevant support or operations work  
9           roles and competency areas such as administra-  
10          tion and finance, law and policy, ethics, privacy,  
11          human resources, information technology, oper-  
12          ational technology, supply chain security, and  
13          acquisition and procurement;

14          “(iii) information that promotes the dis-  
15          covery of careers in critical and emerging tech-  
16          nologies and the multiple career pathways for  
17          learners from a variety of backgrounds, includ-  
18          ing individuals with nontechnical or other non-  
19          traditional backgrounds and education; and

20          “(iv) information for how individuals can  
21          acquire relevant credentials (e.g., academic de-  
22          grees, certificates, certifications, etc.) that qual-  
23          ify individuals for employment and career ad-  
24          vancement;

1           “(D) consult, as the Director considers appro-  
2           priate, with Federal agencies, industry, State, local,  
3           Tribal, and territorial government, nonprofit, labor  
4           organizations, research, and academic institutions in  
5           the development of workforce frameworks, or associ-  
6           ated materials;

7           “(E) to produce resources in multiple languages  
8           to support global adoption of the frameworks pro-  
9           vided pursuant to subparagraph (A); and

10           “(F) after each determination under subpara-  
11           graph (B), to submit to Congress a report on such  
12           determination and any plans to review and update  
13           any workforce frameworks under this paragraph.”.

14           (c) NICE WORKFORCE FRAMEWORK FOR CYBERSE-  
15           CURITY UPDATE.—

16           (1) REPORT ON UPDATES.—

17           (A) IN GENERAL.—Not later than 180  
18           days after the date of the enactment of this  
19           Act, and subsequently pursuant to paragraph  
20           (14)(F) of section 2(b) of the National Institute  
21           of Standards and Technology Act (15 U.S.C.  
22           272(b)), as added by subsection (b) of this sec-  
23           tion, the Director of the National Institute of  
24           Standards and Technology shall submit to Con-  
25           gress a report that describes the process for on-

1 going review and updates to the National Initia-  
2 tive for Cybersecurity Education Workforce  
3 Framework for Cybersecurity (NIST Special  
4 Publication 800–181), or a successor frame-  
5 work.

6 (B) REQUIREMENTS.—Each report sub-  
7 mitted pursuant to subparagraph (A) shall—

8 (i) summarize proposed changes to  
9 the framework;

10 (ii) identify, with regard to the work  
11 roles, tasks, knowledge, and skills included  
12 in the framework, how industry, academia,  
13 labor organizations, and relevant govern-  
14 ment agencies are consulted in the update;  
15 and

16 (iii) describe—

17 (I) the ongoing process and  
18 timeline for updating the framework;  
19 and

20 (II) the incorporation of any ad-  
21 ditional work roles or competency  
22 areas in domains such as administra-  
23 tion and finance, law and policy, eth-  
24 ics, privacy, human resources, infor-  
25 mation technology, operational tech-

1 nology, supply chain security, and ac-  
2 quisition and procurement.

3 (2) REPORT ON APPLICATION AND USE OF NICE  
4 FRAMEWORK.—Not later than 3 years after the date  
5 of the enactment of this Act and not less frequently  
6 than once every 3 years thereafter for 9 years, the  
7 Director shall, in consultation with industry, govern-  
8 ment, nonprofit, labor organizations, research, and  
9 academic institutions, submit to Congress a report  
10 that identifies—

11 (A) applications and uses of the framework  
12 described in paragraph (1)(A) in practice;

13 (B) any guidance that the program office  
14 of the National Initiative for Cybersecurity  
15 Education provides to increase adoption by em-  
16 ployers and education and training providers of  
17 the work roles and competency areas for indi-  
18 viduals who perform cybersecurity work at all  
19 proficiency levels;

20 (C) available information regarding em-  
21 ployer and education and training provider use  
22 of the framework;

23 (D) an assessment of the use and effective-  
24 ness of the framework by and for individuals  
25 with nontraditional backgrounds or education,

1 especially individuals making a career change or  
2 not pursuing a bachelor's degree or higher; and

3 (E) any additional actions taken by the Di-  
4 rector to increase the use of the framework.

5 (3) CYBERSECURITY CAREER EXPLORATION RE-  
6 SOURCES.—The Director, acting through the Na-  
7 tional Initiative for Cybersecurity Education, shall  
8 disseminate cybersecurity career resources for all  
9 age groups, including kindergarten through sec-  
10 ondary and postsecondary education and adult work-  
11 ers.

12 (d) ADDITIONAL WORKFORCE FRAMEWORKS.—

13 (1) FRAMEWORK ASSESSMENT.—Not later than  
14 180 days after the date of the enactment of this Act,  
15 the Director shall assess the need for additional  
16 workforce frameworks for critical and emerging  
17 technologies, such as quantum information science.

18 (2) DEVELOPMENT OF ADDITIONAL FRAME-  
19 WORKS.—

20 (A) IN GENERAL.—The Director shall de-  
21 velop and publish a workforce framework for  
22 each additional workforce framework that the  
23 Director determines is needed pursuant to an  
24 assessment carried out pursuant to paragraph  
25 (1).

1 (B) REQUIRED AI FRAMEWORK.—Notwith-  
2 standing paragraph (1) and subparagraph (A)  
3 of this paragraph, not less than 540 days after  
4 the date of the enactment of this Act, the Di-  
5 rector shall develop and publish a workforce  
6 framework, workforce categories, work roles,  
7 and competency areas for artificial intelligence.

8 (3) MODEL.—In developing a workforce frame-  
9 work under paragraph (2), the Director may use the  
10 Playbook for Workforce Frameworks developed by  
11 the National Initiative for Cybersecurity Education  
12 that is modeled after the National Initiative for Cy-  
13 bersecurity Education Workforce Framework for Cy-  
14 bersecurity (NIST Special Publication 800–181), or  
15 a successor framework.

16 (4) FRAMEWORK COMPONENTS.—Each frame-  
17 work developed pursuant to paragraph (2) shall in-  
18 clude relevant support or operations work roles and  
19 competency areas such as administration and fi-  
20 nance, law and policy, ethics, privacy, human re-  
21 sources, information technology, operational tech-  
22 nology, supply chain security, and acquisition and  
23 procurement, as the Director considers appropriate,  
24 in alignment with paragraph (14)(C) of section 2(b)  
25 of the National Institute of Standards and Tech-

1 nology Act (15 U.S.C. 272(b)), as added by sub-  
2 section (b).

3 (5) PROFESSIONAL SKILLS REQUIRED.—Each  
4 framework developed pursuant to paragraph (2)  
5 shall include professional skills or employability  
6 skills, as the Director considers appropriate, in  
7 alignment with paragraph (14)(C) of section 2(b) of  
8 the National Institute of Standards and Technology  
9 Act (15 U.S.C. 272(b)), as added by subsection (b).

10 (6) NONTRADITIONAL BACKGROUNDS.—Each  
11 framework developed under paragraph (2), or mate-  
12 rials associated with each framework, shall include  
13 information for how individuals with nontechnical or  
14 other nontraditional backgrounds and education may  
15 utilize their skills for such frameworks' roles and  
16 tasks, in alignment with paragraph (14)(D) of sec-  
17 tion 2(b) of the such Act (15 U.S.C.  
18 272(b)(14)(D)), as so added.

19 (7) UPDATES.—The Director shall update each  
20 framework developed under paragraph (2) in accord-  
21 ance with subparagraph (B) of paragraph (14) of  
22 section 2(b) of the National Institute of Standards  
23 and Technology Act (15 U.S.C. 272(b)), as added by  
24 subsection (b) of this section, and submit to Con-

1       gress reports in accordance with subparagraph (F)  
2       of such paragraph.

3   **SEC. 18. RESTRICTIONS ON AWARDS OR SCHOLARSHIPS TO**  
4                                   **CERTAIN INSTITUTIONS OR RECIPIENTS.**

5       The Director may not award any funds or initiate any  
6 programs authorized under or described in this Act to an  
7 elementary or secondary education institution, an institu-  
8 tion of higher education, as defined in section 102 of the  
9 Higher Education Act of 1965 (20 U.S.C. 1002), a non-  
10 profit entity related to or affiliated with any such institu-  
11 tion, a nonprofit entity that engages in established cur-  
12 riculum-related clinical training of students registered at  
13 any such institution, a nonprofit research organization, or  
14 a governmental research organization, if such recipient  
15 has been found to be in violation of title VI of the Civil  
16 Rights Act of 1964 (42 U.S.C. 2000d et seq.) due to dis-  
17 crimination on the basis of shared ancestry or ethnic char-  
18 acteristics on or after January 1, 2020.

○