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(Original Signature of Member)

119TH CONGRESS  
2D SESSION

# H. R.

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To make certain improvements relating to artificial intelligence, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

Mr. LIEU introduced the following bill; which was referred to the Committee on \_\_\_\_\_

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# A BILL

To make certain improvements relating to artificial intelligence, and for other purposes.

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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “American Leadership in AI Act”.

6 (b) TABLE OF CONTENTS.—The table of contents for  
7 this Act is as follows:

Sec. 1. Short title; table of contents.

### TITLE I—STRENGTHENING STANDARDS, TESTING, AND EVALUATIONS

Subtitle A—Center for AI Standards and Innovation

Sec. 101. Center for AI Standards and Innovation.

Subtitle B—Support for Artificial Intelligence and Other Critical and Emerging Technologies by the National Institute of Standards and Technology.

Sec. 111. Definitions.

Sec. 112. United States participation in organizations developing standards and specifications for artificial intelligence and other critical and emerging technologies.

Sec. 113. Pilot program to support standards meetings for artificial intelligence and other critical and emerging technologies in the United States.

Subtitle C—Research on Development Best Practices by the National Institute of Standards and Technology

Sec. 121. Research on development best practices by the National Institute of Standards and Technology.

TITLE II—BUILD RESEARCH INFRASTRUCTURE AND SPUR GROUNDBREAKING RESEARCH

Subtitle A—National Artificial Intelligence Research Resource

Sec. 201. National Artificial Intelligence Research Resource.

Subtitle B—National Artificial Intelligence Research Resource Pilot Program

Sec. 211. National Artificial Intelligence Research Resource pilot program.

Subtitle C—Prize Competitions for Artificial Intelligence Research and Development

Sec. 221. Prize competitions for artificial intelligence research and development.

Subtitle D—Grants to Perform Research Regarding the Use of Generative Artificial Intelligence in Health Care

Sec. 231. Grants to perform research regarding the use of generative artificial intelligence in health care.

Subtitle E—Department of Agriculture and National Science Foundation Research and Development Coordination

Sec. 241. Department of Agriculture and National Science Foundation research and development coordination.

Subtitle F—Department of Energy Artificial Intelligence Research Program

Sec. 251. Department of Energy artificial intelligence research program.

TITLE III—MODERNIZING FEDERAL AI GOVERNANCE, PROCUREMENT, AND SECURITY

Subtitle A—Federal Standards for Artificial Intelligence

Sec. 301. Federal standards for artificial intelligence.

Subtitle B—AI Leadership to Enable Accountable Deployment

- Sec. 311. Definitions.
- Sec. 312. Chief Artificial Intelligence Officers Council.
- Sec. 313. Agency artificial intelligence officers.
- Sec. 314. Agency coordination on artificial intelligence.
- Sec. 315. GAO reports.
- Sec. 316. Post-enactment guidance from the Director.
- Sec. 317. Sunset.

Subtitle C—AI Incident Reporting and Security Enhancement

- Sec. 321. Activities to support voluntary vulnerability and incident tracking associated with artificial intelligence.

TITLE IV—PROTECTING WORKERS AND EMPOWERING SMALL BUSINESSES

Subtitle A—AI Workforce Research Hub

- Sec. 401. AI Workforce Research Hub.

Subtitle B—Small Business Artificial Intelligence Advancement

- Sec. 411. Resources for small businesses to utilize artificial intelligence.

TITLE V—SAFEGUARDING AMERICANS AND DETERRING HARMFUL DEEPPAKES

Subtitle A—Disrupting Explicit Forged Images and Non-Consensual Edits

- Sec. 501. Civil action relating to disclosure of intimate images.
- Sec. 502. Severability; rule of construction.

Subtitle B—AI Fraud Deterrence

- Sec. 511. Financial crimes and artificial intelligence.
- Sec. 512. AI impersonation of Federal officials.

Subtitle C—AI Whistleblower Protection

- Sec. 521. Definitions.
- Sec. 522. Anti-retaliation protection for AI whistleblowers.

TITLE VI—EXPANDING EDUCATION, LITERACY, AND INCLUSION

Subtitle A—Codifying AI Literacy Efforts of the AI Task Force

- Sec. 601. AI literacy efforts of the AI Task Force.

Subtitle B—New Collar Jobs Tax Credit

- Sec. 611. Employee cybersecurity education.
- Sec. 612. Cybersecurity training incentive for Government contracts.

Subtitle C—Literacy in Future Technologies Artificial Intelligence

- Sec. 621. Preparing K–12 educators and students for an AI literate future.

Subtitle D—Expanding AI Voices Through Capacity Building

Sec. 631. Expanding capacity in artificial intelligence science.

Subtitle E—NSF AI Education

Sec. 641. Scholarships and fellowships in artificial intelligence.

Sec. 642. Community college and area career and technical educational school centers of AI excellence.

Sec. 643. Awards for research on artificial intelligence in education.

Sec. 644. National STEM Teacher Corps.

1 **TITLE I—STRENGTHENING**  
2 **STANDARDS, TESTING, AND**  
3 **EVALUATIONS**

4 **Subtitle A—Center for AI**  
5 **Standards and Innovation**

6 **SEC. 101. CENTER FOR AI STANDARDS AND INNOVATION.**

7 (a) DEFINITIONS.—Section 5002 of the National Ar-  
8 tificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401;  
9 as enacted as part of division E of the William M. (Mac)  
10 Thornberry National Defense Authorization Act for Fiscal  
11 Year 2021; Public Law 116–283) is amended—

12 (1) by redesignating paragraphs (4), (5), (6),  
13 (7), (8), (9), (10), and (11) as paragraphs (6), (8),  
14 (9), (10), (11), (12), (13), and (14), respectively;

15 (2) by inserting after paragraph (3) the fol-  
16 lowing new paragraphs:

17 “(4) **ARTIFICIAL INTELLIGENCE RED**  
18 **TEAMING.**—The term ‘artificial intelligence red  
19 teaming’ means a structured testing in a controlled  
20 environment simulating real-world conditions, using  
21 adversarial methods to find flaws and vulnerabilities

1 in an artificial intelligence system and identify risks,  
2 flaws, and vulnerabilities of artificial intelligence sys-  
3 tems, such as harmful outputs from such system,  
4 unforeseen or undesirable system behaviors, limita-  
5 tions, and potential risks associated with the misuse  
6 of such system.

7 “(5) ARTIFICIAL INTELLIGENCE SYSTEM.—The  
8 term ‘artificial intelligence system’—

9 “(A) means any data system, software, ap-  
10 plication, tool, or utility that operates in whole  
11 or in part using dynamic or static machine  
12 learning algorithms or other forms of artificial  
13 intelligence, whether—

14 “(i) the data system, software, appli-  
15 cation, tool, or utility is established pri-  
16 marily for the purpose of researching, de-  
17 veloping, or implementing artificial intel-  
18 ligence technology; or

19 “(ii) artificial intelligence capability is  
20 integrated into another system or agency  
21 business process, operational activity, or  
22 technology system; and

23 “(B) does not include any common com-  
24 mercial product within which artificial intel-

1           ligence is embedded, such as a word processor  
2           or map navigation system.”; and

3           (3) by inserting after paragraph (6), as so re-  
4           designated, the following new paragraph:

5           “(7) FEDERAL LABORATORY.—The term ‘Fed-  
6           eral laboratory’ has the meaning given such term in  
7           section 4 of the Stevenson-Wydler Technology Inno-  
8           vation Act of 1980 (15 U.S.C. 3703).”.

9           (b) ESTABLISHMENT.—Title LIII of division E of the  
10          William M. (Mac) Thornberry National Defense Author-  
11          ization Act for Fiscal Year 2021 (Public Law 116–283;  
12          134 Stat. 4523) is amended by adding at the end the fol-  
13          lowing new section:

14          **“SEC. 5304. CENTER FOR AI STANDARDS AND INNOVATION.**

15          “(a) ESTABLISHMENT.—

16                 “(1) IN GENERAL.—Subject to the availability  
17                 of appropriations, the Director of the National Insti-  
18                 tute of Standards and Technology (in this section  
19                 referred to as the ‘Director’) shall establish a center  
20                 on artificial intelligence, to be known as the ‘Center  
21                 for AI Standards and Innovation’ (in this section re-  
22                 ferred to as the ‘Center’), to ensure continued  
23                 United States leadership in research, development,  
24                 and evaluation of the reliability, robustness, resil-

1 ience, security, and safety of artificial intelligence  
2 systems.

3 “(2) PURPOSES.—The purposes of the Center  
4 are as follows:

5 “(A) To advance the measurement science  
6 for artificial intelligence reliability, robustness,  
7 resilience, security, and safety.

8 “(B) To support the National Institute of  
9 Standards and Technology laboratories as such  
10 laboratories carry out artificial intelligence ac-  
11 tivities related to robustness, resilience, and  
12 safety in accordance with section 22A of the  
13 National Institute of Standards and Technology  
14 Act (15 U.S.C. 278h–1).

15 “(C) To collaborate with the private sector,  
16 standards development organizations, civil soci-  
17 ety, and Federal agencies in supporting the de-  
18 velopment of voluntary best practices and tech-  
19 nical standards for evaluating the reliability,  
20 robustness, resilience, security, and safety-re-  
21 lated challenges and remediations of artificial  
22 intelligence systems.

23 “(D) To increase the understanding of  
24 State, local, and Tribal governments, institu-  
25 tions of higher education, private sector enti-

1           ties, and the public of the reliability,  
2           robustness, resilience, security, and safety-re-  
3           lated challenges and remediations of artificial  
4           intelligence.

5           “(3) DIRECTOR.—The Director or appropriate  
6           designee shall serve as the Director of the Center.

7           “(4) CONSULTATION AND COORDINATION.—In  
8           establishing the Center, the Director shall—

9                   “(A) coordinate with—

10                           “(i) the Director of the National  
11                           Science Foundation;

12                           “(ii) the Director of the Office of  
13                           Science and Technology Policy;

14                           “(iii) the Secretary of Energy;

15                           “(iv) the Secretary of Defense; and

16                           “(v) the Secretary of Homeland Secu-  
17                           rity; and

18                   “(B) consult with the heads of such other  
19           Federal agencies as the Director considers ap-  
20           propriate.

21           “(5) ACTIVITIES.—The activities of the Center  
22           may include the following:

23                   “(A) Conducting evaluations and  
24           benchmarking of the capabilities and limitations  
25           of artificial intelligence over time.

1           “(B) Conducting measurement research to  
2 inform the development of recommended best  
3 practices, benchmarks, methodologies, proce-  
4 dures, voluntary consensus-based technical  
5 standards, and other resources for the evalua-  
6 tion and assurance of reliable, robust, resilient,  
7 secure, and safe artificial intelligence systems  
8 and reduce the risk of the misuse of such sys-  
9 tems, including relating to the following:

10           “(i) Common definitions and charac-  
11 terizations for aspects of artificial intel-  
12 ligence reliability, robustness, resiliency,  
13 security, and safety, and the measurement  
14 of such that are applicable across many  
15 sectors and use cases.

16           “(ii) The reliability, robustness, resil-  
17 ience, security, and safety of artificial in-  
18 telligence systems and use cases, including  
19 the ability for such systems to withstand  
20 unexpected inputs and adversarial attacks.

21           “(iii) Testing, evaluation, validation,  
22 and verification methods for risk manage-  
23 ment, including measurement of and assur-  
24 ance for accuracy, transparency, reliability,  
25 security, verifiability, and safety through-

1 out the lifecycle of artificial intelligence  
2 systems, including through artificial intel-  
3 ligence red teaming.

4 “(iv) Reference use cases for artificial  
5 intelligence systems and criteria for assess-  
6 ing safety risk in each such use case.

7 “(C) Providing to relevant Federal agen-  
8 cies and National Institute of Standards and  
9 Technology laboratories, as appropriate, input  
10 and support for artificial intelligence risk man-  
11 agement regarding reliability, robustness, resil-  
12 ience, security, and safety-related topics.

13 “(D) Engaging with, or supporting the en-  
14 gagement of the United States Government  
15 with, international standards organizations,  
16 multilateral organizations, and organizations  
17 and topically relevant bodies among allies and  
18 partners to support international collaboration  
19 with respect to activities described in this para-  
20 graph.

21 “(E) As appropriate, and in coordination  
22 with ongoing National Institute of Standards  
23 and Technology activities, coordinating Federal  
24 research, development, demonstration, and  
25 standards engagement related to artificial intel-

1           ligence reliability, robustness, resilience, secu-  
2           rity, and safety.

3           “(6) REQUIREMENTS.—In carrying out the ac-  
4           tivities described in paragraph (5), the Director shall  
5           carry out the following:

6                   “(A) Support research that assesses and  
7                   mitigates reliability, robustness, resilience, secu-  
8                   rity, and safety risks of artificial intelligence  
9                   systems across several timescales, including de-  
10                  monstrable safety risks that arise from the use  
11                  and misuse of such systems.

12                  “(B) Assess scenarios in which such sys-  
13                  tems could be deployed to create risks for eco-  
14                  nomic or national security.

15                  “(C) Leverage computing resources, access  
16                  to open datasets, open source software, and  
17                  other resources from industry, the government,  
18                  nonprofit organizations (as such term is defined  
19                  in section 201 of title 35, United States Code),  
20                  Federal laboratories, and institutions of higher  
21                  education to advance the mission of the Center,  
22                  as appropriate.

23                  “(D) Leverage existing Federal invest-  
24                  ments to advance the mission of the Center.

1           “(E) Avoid unnecessary duplication with  
2           National Institute of Standards and Technology  
3           laboratory activities authorized under section  
4           22A of the National Institute of Standards and  
5           Technology Act (15 U.S.C. 278h–1).

6           “(7) REPORT.—For each fiscal year beginning  
7           with fiscal year 2027, not later than 90 days after  
8           the President submits a budget for such fiscal year  
9           pursuant to section 1105 of title 31, United States  
10          Code, the Director shall submit to the Committee on  
11          Science, Space, and Technology of the House of  
12          Representatives and the Committee on Commerce,  
13          Science, and Transportation of the Senate a report  
14          that includes the following:

15                 “(A) A summarized budget in support of  
16                 the Center for such fiscal year.

17                 “(B) A description of the goals, priorities,  
18                 and metrics for guiding and evaluating the ac-  
19                 tivities of the Center.

20          “(b) ESTABLISHMENT OF CONSORTIUM.—

21                 “(1) IN GENERAL.—The Director shall establish  
22                 a consortium (in this section referred to as the ‘Con-  
23                 sortium’) of stakeholders from academic or research  
24                 communities, Federal laboratories, private industry,  
25                 and civil society in matters relating to artificial intel-

1       ligence reliability, robustness, resilience, security,  
2       and safety to support the following:

3               “(A) The Center, in carrying out the ac-  
4               tivities specified in subsection (a)(5).

5               “(B) The National Institute of Standards  
6               and Technology in carrying out section 22A of  
7               the National Institute of Standards and Tech-  
8               nology Act (15 U.S.C. 278h–1).

9               “(2) GOALS.—In addition to supporting the  
10              Center in carrying out activities under subsection  
11              (a)(5), the goals of the Consortium are the following:

12              “(A) To evaluate the needs of stake-  
13              holders, including industry and civil society.

14              “(B) Identify where gaps remain in the ac-  
15              tivities of the Center, including relating to  
16              measurement research and support for stand-  
17              ards development, and provide recommenda-  
18              tions to the Center on how to address such  
19              gaps.

20              “(3) REPORT.—Not later than two years after  
21              the date of the enactment of this section, the Direc-  
22              tor shall submit to the Committee on Science, Space,  
23              and Technology of the House of Representatives and  
24              the Committee on Commerce, Science, and Trans-  
25              portation of the Senate a report summarizing the

1 contributions of the members of the Consortium in  
2 support the efforts of the Center.

3 “(c) SCIENTIFIC INTEGRITY.—The Director shall en-  
4 sure the Center, Consortium, and staff adhere to policies  
5 and procedures established pursuant to section 1009 of  
6 the America COMPETES Act (42 U.S.C. 6620), includ-  
7 ing by providing mechanisms for an employee or associate  
8 of the National Institute of Standards and Technology,  
9 a member of the Consortium, a private sector entity, re-  
10 searcher, or student affiliated with the Center or Consor-  
11 tium, an employee of an agency working with the Center,  
12 or a member of the public to report violations of such poli-  
13 cies by confidential and anonymous means.

14 “(d) SECURITY.—This section shall be carried out in  
15 accordance with the provision of subtitle D of title VI of  
16 the Research and Development, Competition, and Innova-  
17 tion Act (42 U.S.C. 19231 et seq.; enacted as part of divi-  
18 sion B of Public Law 117–167) and section 223 of the  
19 William M. (Mac) Thornberry National Defense Author-  
20 ization Act for Fiscal Year 2021 (42 U.S.C. 6605).

21 “(e) LIMITATION.—Information shared by an entity  
22 with, or provided to, the Director for the purpose of the  
23 activities described in this section may not be used by any  
24 Federal, State, local, or Tribal department or agency to  
25 regulate the activity of such entity.

1       “(f) PROHIBITIONS.—Nothing in this section may be  
2 construed to—

3           “(1) provide the Director any enforcement au-  
4 thority that was not in effect on the day before the  
5 date of the enactment of this section;

6           “(2) confer any regulatory authority to any  
7 Federal, State, Tribal, or local department or agen-  
8 cy;

9           “(3) require any private sector entity to share  
10 data, including proprietary information, with the Di-  
11 rector, the Center, or the Consortium; or

12           “(4) modify any regulatory requirement to re-  
13 port or submit information to a Federal, State, Trib-  
14 al or local department or agency.

15       “(g) SUNSET.—This section shall terminate on the  
16 date that is six years after the date of the enactment of  
17 this section.

18       “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
19 is to be authorized to be appropriated to the Director  
20 \$10,000,000 for fiscal year 2027 to carry out this sec-  
21 tion.”.

22       (c) HIRING CRITICAL TECHNICAL EXPERTS UP-  
23 DATE.—Subsection (c) of section 6 of the National Insti-  
24 tute of Standards and Technology Act (15 U.S.C. 275)  
25 is amended by striking “section (b) shall expire on the

1 date that is 5 years” and inserting “subsection (b) shall  
2 expire on the date that is 7 years”.

3 (d) CLERICAL AMENDMENTS.—The tables of con-  
4 tents in section 2(b) and title LIII of the William M.  
5 (Mac) Thornberry National Defense Authorization Act for  
6 Fiscal Year 2021 are amended by inserting after the items  
7 relating to section 5303 the following new items:

“Sec. 5304. Center for AI Standards and Innovation.”.

8 **Subtitle B—Support for Artificial**  
9 **Intelligence and Other Critical**  
10 **and Emerging Technologies by**  
11 **the National Institute of Stand-**  
12 **ards and Technology.**

13 **SEC. 111. DEFINITIONS.**

14 In this subtitle:

15 (1) COVERED ARTIFICIAL INTELLIGENCE AND  
16 OTHER CRITICAL AND EMERGING TECHNOLOGIES.—

17 The term “covered artificial intelligence and other  
18 critical and emerging technologies” means a subset  
19 of artificial intelligence and other critical and emerg-  
20 ing technologies included in the list of such tech-  
21 nologies identified and maintained by the National  
22 Science and Technology Council of the Office of  
23 Science and Technology Policy as the Director con-  
24 siders appropriate for purposes of this subtitle.

1           (2) DIRECTOR.—The term “Director” means  
2           the Director of the National Institute of Standards  
3           and Technology.

4 **SEC. 112. UNITED STATES PARTICIPATION IN ORGANIZA-**  
5 **TIONS DEVELOPING STANDARDS AND SPECI-**  
6 **FICATIONS FOR ARTIFICIAL INTELLIGENCE**  
7 **AND OTHER CRITICAL AND EMERGING TECH-**  
8 **NOLOGIES.**

9           (a) BRIEFING REQUIRED.—

10           (1) IN GENERAL.—Not later than 1 year after  
11           the date of the enactment of this Act, the Director  
12           shall provide to Congress a briefing to assist in the  
13           evaluation and identification of opportunities for  
14           Federal Government support for industry-led efforts  
15           in the development of technical standards for artifi-  
16           cial intelligence and other critical and emerging  
17           technologies.

18           (2) INTERAGENCY CONSULTATION.—In pre-  
19           paring the briefing required by paragraph (1), the  
20           Director shall consult with the heads of such Fed-  
21           eral agencies as the Director considers relevant.

22           (3) ELEMENTS.—The briefing provided pursu-  
23           ant to paragraph (1) shall include the following:

24                   (A) An overview of standards activities re-  
25                   lating to artificial intelligence and other critical

1 and emerging technologies and information  
2 about the following:

3 (i) Key technical standards that are  
4 the subject of ongoing activity.

5 (ii) Key standards bodies hosting  
6 these activities.

7 (iii) Any Federal agency that is par-  
8 ticipating in these activities.

9 (B) An analysis identifying where partici-  
10 pation by United States industry and Federal  
11 agencies in standards activities in artificial in-  
12 telligence and other critical and emerging tech-  
13 nologies would be facilitated or enhanced by  
14 conducting standards meetings hosted in the  
15 United States.

16 (C) Recommendations for effectively in-  
17 forming United States industry and Federal  
18 agencies on ongoing standardization activities  
19 with the objective of increasing participation of  
20 such industry and agencies in such activities.

21 (4) FEDERAL AGENCY NOTICE REQUIRE-  
22 MENT.—

23 (A) IN GENERAL.—Using the mechanism  
24 established pursuant to subparagraph (B), each  
25 head of a Federal agency shall transmit to the

1 Director notice of the participation of their re-  
2 spective Federal agency in a standards activity  
3 relating to artificial intelligence and other crit-  
4 ical and emerging technologies.

5 (B) MECHANISM.—The Director shall, in  
6 coordination with the Director of the Office of  
7 Management and Budget, develop a mechanism  
8 for reporting participation by Federal agencies  
9 in standards activities.

10 (b) WEB PORTAL.—

11 (1) IN GENERAL.—In order to inform United  
12 States industry and Federal agencies about existing  
13 and ongoing international efforts to develop tech-  
14 nical standards for artificial intelligence and other  
15 critical and emerging technologies and opportunities  
16 for participation in such efforts, the Director shall  
17 establish an accessible web portal to help such indus-  
18 try and agencies navigate and participate in such ef-  
19 forts.

20 (2) CONTENTS.—The web portal established  
21 pursuant to paragraph (1) shall include regularly  
22 updated lists of the following:

23 (A) International efforts described in para-  
24 graph (1) and information on opportunities for  
25 participation in such efforts.

1 (B) Information on accessing standards,  
2 both in development and published, for artificial  
3 intelligence and other critical and emerging  
4 technologies.

5 (3) ADMINISTRATION.—The Director may inter  
6 into such cooperative agreements with such non-  
7 governmental organizations as the Director considers  
8 appropriate to establish the web portal required by  
9 paragraph (1).

10 **SEC. 113. PILOT PROGRAM TO SUPPORT STANDARDS MEET-**  
11 **INGS FOR ARTIFICIAL INTELLIGENCE AND**  
12 **OTHER CRITICAL AND EMERGING TECH-**  
13 **NOLOGIES IN THE UNITED STATES.**

14 (a) PILOT PROGRAM REQUIRED.—

15 (1) IN GENERAL.—Not later than 180 days  
16 after the date of the enactment of this Act, and sub-  
17 ject to the availability of appropriated funds, the Di-  
18 rector shall, in coordination with the heads of such  
19 other Federal agencies as the Director considers ap-  
20 propriate, establish a pilot program on supporting  
21 standards meetings for artificial intelligence and  
22 other critical and emerging technologies in the  
23 United States by awarding grants to eligible entities  
24 described in subsection (b) hosting meetings of orga-  
25 nizations described in paragraph (1) of such sub-

1 section to support the hosting of such meetings in  
2 the United States.

3 (2) ADMINISTRATION.—The Director may carry  
4 out the pilot program required by paragraph (1) by  
5 entering into such cooperative agreements with such  
6 nongovernmental organizations as the Director con-  
7 siders appropriate to establish and administer the  
8 pilot program.

9 (b) ELIGIBLE ENTITIES.—For purposes of the pilot  
10 program required by subsection (a), an eligible entity is—

11 (1) an organization that is developing standards  
12 and specifications for artificial intelligence and other  
13 critical and emerging technologies for at least 1  
14 technical standard that affects the interests of 1 or  
15 more Federal agencies; or

16 (2) an entity that hosts an organization de-  
17 scribed in paragraph (1).

18 (c) GRANTS.—

19 (1) IN GENERAL.—In carrying out the pilot  
20 program required by subsection (a), the Director  
21 shall award grants to eligible entities to host meet-  
22 ings as described in such subsection.

23 (2) USE OF FUNDS.—An eligible entity receiv-  
24 ing a grant under this subsection to host a meeting  
25 in the United States may use the amount of the

1 grant for such costs as the Director considers rea-  
2 sonable for hosting the meeting in the United  
3 States, but not more than fifty percent of antici-  
4 pated cost of hosting the meeting and not more than  
5 a maximum amount that the Director shall establish  
6 for purposes of this subsection. Such costs may in-  
7 clude the following:

8 (A) Costs related to the preparation and  
9 planning of meetings described in subsection  
10 (a).

11 (B) Meeting venue-related expenses.

12 (C) Such other costs that may support the  
13 eligible entity in conducting a standards meet-  
14 ing in the United States.

15 (3) CONSIDERATIONS.—In deciding whether to  
16 award a grant under this subsection to an eligible  
17 entity to host a meeting, the Director may consider  
18 the extent to which the eligible entity—

19 (A) is or hosts an organization that admin-  
20 isters technical standards activity in artificial  
21 intelligence and other critical and emerging  
22 technologies that involves United States-based  
23 participants, including but not limited to par-  
24 ticipants from Federal agencies of the United  
25 States;

1 (B) has a demonstrable history of partici-  
2 pating in or hosting successful meetings; and

3 (C) has a stable or growing participant  
4 base.

5 (d) GUIDANCE.—

6 (1) IN GENERAL.—The Director shall develop  
7 and periodically update guidance for the pilot pro-  
8 gram carried out under this section.

9 (2) ELEMENTS.—The guidance developed and  
10 updated pursuant to paragraph (1) shall cover the  
11 following:

12 (A) Eligibility for grants awarded under  
13 the pilot program.

14 (B) How grants are awarded under sub-  
15 section (c).

16 (C) The duration and amounts of grants  
17 awarded under subsection (c).

18 (D) The merit review process for the pilot  
19 program.

20 (E) Priority areas for technical standards  
21 activity.

22 (F) Means for recipients of grants under  
23 the pilot program to report expenses relating to  
24 other costs described in subsection (c)(2)(C).

1           (G) Such additional matters as the Direc-  
2           tor determines appropriate for purposes of the  
3           pilot program.

4           (e) BRIEFINGS FOR CONGRESS.—

5           (1) IN GENERAL.—During the third year of the  
6           pilot program carried out under this section and in  
7           each subsequent year of the pilot program, the Di-  
8           rector shall provide Congress with a briefing on the  
9           pilot program.

10          (2) ELEMENTS.—Each briefing provided pursu-  
11          ant to paragraph (1) shall include the following:

12           (A) An assessment of the effectiveness of  
13           the pilot program with respect to improving the  
14           hosting of standards meetings in the United  
15           States.

16           (B) Identification of the recipients of  
17           grants under the pilot program.

18           (C) The geographic distribution of  
19           attendees at meetings supported with grants  
20           under the pilot program.

21           (D) A summary of the expenses for which  
22           the amounts of grants awarded under the pilot  
23           program were used.

24          (f) RECOMMENDATIONS FOR PERMANENT IMPLE-  
25          MENTATION.—If, before the date that is 2 years after the

1 date of the enactment of this Act, the Director determines  
2 that providing support as described in subsection (a) is  
3 feasible and advisable, the Director shall, not later than  
4 2 years after the date of the enactment of this Act—

5 (1) develop recommendations for such legisla-  
6 tive or administrative action as the Director con-  
7 siders appropriate to establish a permanent imple-  
8 mentation of the pilot program; and

9 (2) submit to Congress the recommendations  
10 developed pursuant to paragraph (1).

11 (g) TERMINATION.—The pilot program required by  
12 subsection (a)(1) shall terminate on the date that is 5  
13 years after the date of the enactment of this Act.

14 (h) AUTHORIZATION OF APPROPRIATIONS.—There is  
15 authorized to be appropriated to carry out this section  
16 \$5,000,000 for the period of fiscal years 2027 through  
17 2031.

1 **Subtitle C—Research on Develop-**  
2 **ment Best Practices by the Na-**  
3 **tional Institute of Standards**  
4 **and Technology**

5 **SEC. 121. RESEARCH ON DEVELOPMENT BEST PRACTICES**  
6 **BY THE NATIONAL INSTITUTE OF STANDARDS**  
7 **AND TECHNOLOGY.**

8 Section 22A of the National Institute of Standards  
9 and Technology Act (15 U.S.C. 278h–1) is amended—

10 (1) by redesignating subsection (h) as sub-  
11 section (i); and

12 (2) by inserting after subsection (g) the fol-  
13 lowing new subsection:

14 “(h) ASSESSMENT OF THE PRACTICES OF ARTIFI-  
15 CIAL INTELLIGENCE DEVELOPMENT.—

16 “(1) IN GENERAL.—The Director of the Na-  
17 tional Institute of Standards and Technology (in this  
18 subsection referred to as the ‘Director’) shall, sub-  
19 ject to the availability of appropriations, develop,  
20 and periodically update, in collaboration with other  
21 public and private sector organizations, voluntary  
22 guidance for practices and guidelines relating to the  
23 development, release, and assessment of artificial in-  
24 telligence systems. Such guidelines shall satisfy the  
25 following:

1           “(A) Define methods and guidelines for de-  
2           veloping reasonable risk tolerances for various  
3           use cases of artificial intelligence systems based  
4           on the following:

5                   “(i) The risks associated with the in-  
6                   tended and unintended applications, use  
7                   cases, and outcomes of the artificial intel-  
8                   ligence system at issue, based on the  
9                   guidelines specified in the voluntary risk  
10                  management framework for trustworthy  
11                  artificial intelligence systems, or successor  
12                  framework, authorized under subsection  
13                  (c), which may include different categories  
14                  of risk, such as the following:

15                           “(I) Security risks, including  
16                           threats to national security.

17                           “(II) Economic risks, including  
18                           threats to economic opportunities.

19                           “(III) Social risks, including in-  
20                           fringement upon constitutional rights,  
21                           privileges, or liberties.

22                           “(ii) Such other factors as the Direc-  
23                           tor determines appropriate and consistent  
24                           with this subsection.

1           “(B) Categorize and list practices and  
2 norms for communicating relevant characteris-  
3 tics, including robustness, resilience, security,  
4 safety, fairness, privacy, validation, reliability,  
5 accountability, and usability, of artificial intel-  
6 ligence systems, and including any characteris-  
7 tics identified by the voluntary risk manage-  
8 ment framework for trustworthy artificial intel-  
9 ligence systems, or successor framework, au-  
10 thorized under subsection (c). Such practices  
11 and norms may relate to the following:

12           “(i) Documentation of training and  
13 evaluation datasets, such as information  
14 and statistics about a dataset’s size,  
15 curation, annotation, and sources, and the  
16 protocols for a dataset’s selection, creators,  
17 provenance, processing, augmentation, fil-  
18 ters, inclusion of personally identifiable in-  
19 formation, and intellectual property usage.

20           “(ii) Documentation of model infor-  
21 mation, such as a model’s development  
22 stages, training objectives, training strate-  
23 gies, inference objectives, capabilities, re-  
24 producibility of capabilities, input and out-

1 put modalities, components, size, and ar-  
2 chitecture.

3 “(iii) Evaluation of benchmarks for  
4 multi-metric assessments, such as an as-  
5 sessment of an appropriate combination of  
6 robustness, resilience, security, safety, fair-  
7 ness, privacy, accuracy, validity, reliability,  
8 accountability, usability, transparency, effi-  
9 ciency, and calibration, and any character-  
10 istics identified by the voluntary risk man-  
11 agement framework for trustworthy artifi-  
12 cial intelligence systems, or successor  
13 framework, authorized under subsection  
14 (c).

15 “(iv) Metrics and methodologies for  
16 evaluations of artificial intelligence sys-  
17 tems, such as establishing evaluation  
18 datasets.

19 “(v) Public reporting of artificial in-  
20 telligence systems’ capabilities, limitations,  
21 and possible areas of appropriate and inap-  
22 propriate use.

23 “(vi) Disclosure of security practices,  
24 such as artificial intelligence red teaming  
25 and third-party assessments, that were

1 used in the development of an artificial in-  
2 telligence system.

3 “(vii) How to release to the public  
4 components of an artificial intelligence sys-  
5 tem or information about an artificial in-  
6 telligence system, including aspects of the  
7 model, associated training data, and li-  
8 cense agreements.

9 “(viii) Approaches and channels for  
10 collaboration and knowledge-sharing of  
11 best practices across industry, govern-  
12 ments, civil society, and academia.

13 “(ix) Such other categories as the Di-  
14 rector determines appropriate and con-  
15 sistent with this subsection.

16 “(C) For each practice and norm cat-  
17 egorized and listed in accordance with subpara-  
18 graph (B), provide recommendations and prac-  
19 tices for utilizing such practice or norm.

20 “(2) IMPLEMENTATION.—In conducting the Di-  
21 rector’s duties under paragraph (1), the Director  
22 shall carry out the following:

23 “(A) Update the voluntary risk manage-  
24 ment framework for trustworthy artificial intel-  
25 ligence systems, or successor framework, au-

1           thorized under subsection (c) as the Director  
2           determines appropriate.

3           “(B) Ensure that voluntary guidance de-  
4           veloped in paragraph (1) is based on inter-  
5           national standards and industry best practices  
6           to the extent possible and practical.

7           “(C) Not prescribe or otherwise require the  
8           use of specific information or communications  
9           technology products or services.

10          “(D) Collaborate with public, industry, and  
11          academic entities as the Director determines  
12          appropriate, including conducting periodic out-  
13          reach to receive public input from public, indus-  
14          try, and academic stakeholders.

15          “(3) REPORT.—In conducting the Director’s  
16          duties under paragraph (1), the Director shall, not  
17          later than 18 months after the date of the enact-  
18          ment of this subsection, brief the Committee on  
19          Science, Space, and Technology of the House of  
20          Representatives and the Committee on Commerce,  
21          Science, and Transportation of the Senate on the  
22          following:

23                 “(A) New or updated materials, programs,  
24                 or systems that were produced as a result of  
25                 carrying out this subsection.

1           “(B) Policy recommendations of the Direc-  
2           tor that could facilitate and improve commu-  
3           nication and coordination between the private  
4           sector and relevant Federal agencies regarding  
5           implementing the recommended practices iden-  
6           tified in this subsection.

7           “(4) ARTIFICIAL INTELLIGENCE RED TEAMING  
8           DEFINED.—In this subsection, the term ‘artificial in-  
9           telligence red teaming’ means a structured testing of  
10          adversarial efforts to find flaws and vulnerabilities in  
11          an artificial intelligence system and identify risks,  
12          flaws, and vulnerabilities of artificial intelligence sys-  
13          tems, such as harmful outputs from such system,  
14          unforeseen or undesirable system behaviors, limita-  
15          tions, and potential risks associated with the misuse  
16          of such system.”.

1 **TITLE II—BUILD RESEARCH IN-**  
2 **FRASTRUCTURE AND SPUR**  
3 **GROUNDBREAKING RE-**  
4 **SEARCH**

5 **Subtitle A—National Artificial**  
6 **Intelligence Research Resource**

7 **SEC. 201. NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH**  
8 **RESOURCE.**

9 (a) NAIRR STEERING SUBCOMMITTEE.—Section  
10 5103 of the William M. (Mac) Thornberry National De-  
11 fense Authorization Act for Fiscal Year 2021 (15 U.S.C.  
12 9413) is amended—

13 (1) by redesignating subsection (e) as sub-  
14 section (f); and

15 (2) by inserting after subsection (d) the fol-  
16 lowing:

17 “(e) NAIRR STEERING SUBCOMMITTEE.—

18 “(1) DEFINITION.—In this subsection, the  
19 terms ‘NAIRR’, ‘National Artificial Intelligence Re-  
20 search Resource’, ‘Operating Entity’, ‘Program  
21 Management Office’, and ‘resources of the NAIRR’  
22 have the meanings given the terms in section 5601.

23 “(2) ESTABLISHMENT.—There is established  
24 within the Interagency Committee a Steering Sub-  
25 committee for the National Artificial Intelligence Re-

1 search Resource (referred to in this section as the  
2 ‘NAIRR Steering Subcommittee’).

3 “(3) CHAIR AND ASSISTANT CHAIRS.—The  
4 NAIRR Steering Subcommittee shall be chaired by  
5 the Director of the Office of Science and Technology  
6 Policy. The Director of the Office of Science and  
7 Technology Policy may establish assistant chairs of  
8 the NAIRR Steering Subcommittee based on mem-  
9 bers of the NAIRR Steering Subcommittee rotating  
10 into the assistant chair positions on a predetermined  
11 schedule.

12 “(4) MEMBERSHIP.—The Director of the Office  
13 of Science and Technology Policy shall select mem-  
14 bers of the Interagency Committee to serve on the  
15 NAIRR Steering Subcommittee that the Director de-  
16 termines—

17 “(A) have substantial expertise;

18 “(B) have substantially funded or con-  
19 ducted artificial intelligence research and devel-  
20 opment; or

21 “(C) have some other significant relation-  
22 ship with the NAIRR.

23 “(5) CHANGES TO NAIRR STEERING SUB-  
24 COMMITTEE COMPOSITION.—Not less frequently  
25 than once a year, the Director of the Office of

1 Science and Technology Policy shall review the com-  
2 position of the NAIRR Steering Subcommittee and  
3 update such composition, which may include adding  
4 or removing members from the NAIRR Steering  
5 Subcommittee, if necessary.

6 “(6) SUBCOMMITTEES AND WORKING  
7 GROUPS.—The NAIRR Steering Subcommittee may  
8 establish subcommittees, working groups, or other  
9 permanent or temporary bodies of certain members  
10 of the NAIRR Steering Subcommittee.

11 “(7) DUTIES.—The NAIRR Steering Sub-  
12 committee shall—

13 “(A) coordinate with the National Science  
14 Foundation and the Program Management Of-  
15 fice to—

16 “(i) oversee and approve the operating  
17 plan for the NAIRR;

18 “(ii) review the budget for the  
19 NAIRR;

20 “(iii) develop and release a request for  
21 proposals to solicit bids for the Operating  
22 Entity, including establishing the terms  
23 and conditions and functions of the Oper-  
24 ating Entity; and

1                   “(iv) develop and release funding op-  
2                   portunities for resources of the NAIRR;

3                   “(B) work with the Program Management  
4                   Office to establish criteria for the Operating  
5                   Entity, review candidates, and select an entity  
6                   to act as the Operating Entity;

7                   “(C) identify resources that could be fed-  
8                   erated, participate in resource provider selection  
9                   and funding, and provide direction to the Oper-  
10                  ating Entity about resource allocation and how  
11                  those resources should be made accessible via  
12                  the NAIRR;

13                  “(D) define key performance indicators for  
14                  the NAIRR, in conjunction with the Program  
15                  Management Office and any relevant Advisory  
16                  Committees established under section 5602(c);

17                  “(E) evaluate NAIRR performance against  
18                  the key performance indicators defined under  
19                  subparagraph (D) on a periodic basis and not  
20                  less frequently than once every year;

21                  “(F) develop an annual report, transmitted  
22                  to the Director of the Office of Science and  
23                  Technology Policy and publicly released, on the  
24                  progress of the National Artificial Intelligence  
25                  Research Resource that includes—

1 “(i) a summary of the results of the  
2 evaluation conducted under subparagraph  
3 (E); and

4 “(ii) any recommendations for  
5 changes to the NAIRR; and

6 “(G) oversee a periodic independent assess-  
7 ment of the NAIRR.

8 “(8) PROVISION OF RESOURCES OF THE  
9 NAIRR.—Each agency comprising the NAIRR Steer-  
10 ing Subcommittee is authorized to provide the Oper-  
11 ating Entity with resources of the NAIRR or fund-  
12 ing for resources of the NAIRR.”.

13 (b) IN GENERAL.—The National Artificial Intel-  
14 ligence Initiative Act of 2020 (15 U.S.C. 9401 et seq.)  
15 is amended by adding at the end the following:

16 **“TITLE LVI—NATIONAL ARTIFI-**  
17 **CIAL INTELLIGENCE RE-**  
18 **SEARCH RESOURCE**

“Sec. 5601. Definitions.

“Sec. 5602. Establishment; governance.

“Sec. 5603. Resources of the NAIRR.

“Sec. 5604. NAIRR processes and procedures.

“Sec. 5605. NAIRR funding.

19 **“SEC. 5601. DEFINITIONS.**

20 “In this title:

21 “(1) ADVISORY COMMITTEE.—The term ‘Advi-  
22 sory Committee’ means any Advisory Committee es-  
23 tablished under section 5602(c).

1           “(2) AI TESTBED.—The term ‘AI testbed’  
2 means a testbed described in section 22A(g) of the  
3 National Institute of Standards and Technology Act  
4 (15 U.S.C. 278h–1(g)).

5           “(3) EXECUTIVE AGENCY.—The term ‘Execu-  
6 tive agency’ has the meaning given such term in sec-  
7 tion 105 of title 5, United States Code.

8           “(4) NATIONAL ARTIFICIAL INTELLIGENCE RE-  
9 SEARCH RESOURCE; NAIRR.—The terms ‘National  
10 Artificial Intelligence Research Resource’ and  
11 ‘NAIRR’ have the meaning given the term ‘National  
12 Artificial Intelligence Research Resource’ in section  
13 5106(g).

14           “(5) OPERATING ENTITY.—The term ‘Oper-  
15 ating Entity’ means the Operating Entity selected  
16 by the Program Management Office as described in  
17 section 5602(b)(3)(A).

18           “(6) PROGRAM MANAGEMENT OFFICE.—The  
19 term ‘Program Management Office’ means the Pro-  
20 gram Management Office established under section  
21 5602(b).

22           “(7) RESOURCE OF THE NAIRR.—The term ‘re-  
23 source of the NAIRR’ means a resource described in  
24 section 5603(b).

1           “(8) NAIRR STEERING SUBCOMMITTEE.—The  
2           term ‘NAIRR Steering Subcommittee’ means the  
3           NAIRR Steering Subcommittee established under  
4           section 5103(e).

5           “(9) STEM.—The term ‘STEM’ means science,  
6           technology, engineering, and mathematics, including  
7           computer science.

8           **“SEC. 5602. ESTABLISHMENT; GOVERNANCE.**

9           “(a) ESTABLISHMENT.—Not later than one year  
10          after the date of the enactment of this section, the Direc-  
11          tor of the National Science Foundation, in coordination  
12          with the NAIRR Steering Subcommittee, shall establish  
13          the National Artificial Intelligence Research Resource  
14          to—

15                 “(1) spur innovation and advance the develop-  
16                 ment of artificial intelligence to stimulate cutting-  
17                 edge research and propel the strategic development  
18                 of artificial intelligence capabilities;

19                 “(2) improve access to artificial intelligence re-  
20                 sources for researchers and students of artificial in-  
21                 telligence;

22                 “(3) improve capacity for artificial intelligence  
23                 research in the United States; and

1           “(4) support the testing, benchmarking, and  
2           evaluation of artificial intelligence systems developed  
3           and deployed in the United States.

4           “(b) PROGRAM MANAGEMENT OFFICE.—

5           “(1) ESTABLISHMENT.—The Director of the  
6           National Science Foundation shall establish within  
7           the National Science Foundation a Program Man-  
8           agement Office to oversee the day-to-day functions  
9           of the NAIRR and shall appoint an individual to  
10          head the Program Management Office.

11          “(2) STAFF.—

12           “(A) IN GENERAL.—The head of the Pro-  
13          gram Management Office may identify staff  
14          and direct all employees of the Program Man-  
15          agement Office, in accordance with the applica-  
16          ble provisions of title 5, United States Code.

17          “(B) REPRESENTATION AND REQUIRE-  
18          MENTS.—The staff of the Program Manage-  
19          ment Office—

20           “(i) may include representation from  
21           other Federal agencies providing support  
22           for NAIRR resources; and

23           “(ii) shall include not fewer than  
24           three full-time employees.

1           “(3) DUTIES.—The duties of the Program  
2 Management Office shall include—

3           “(A) in coordination with the NAIRR  
4 Steering Subcommittee and any relevant Advi-  
5 sory Committee as appropriate—

6           “(i) developing the funding oppor-  
7 tunity and soliciting bids for the Operating  
8 Entity, which will be responsible for oper-  
9 ation of the National Artificial Intelligence  
10 Research Resource;

11           “(ii) selecting, through a competitive  
12 and transparent process, a nongovern-  
13 mental organization, which may be an  
14 independent legal entity or a consortium of  
15 1 or more partners (which may include  
16 federally funded research and development  
17 centers), to be designated the Operating  
18 Entity;

19           “(iii) overseeing compliance with the  
20 contractual obligations of the Operating  
21 Entity;

22           “(iv) establishing evaluation criteria  
23 for the NAIRR;

24           “(v) overseeing asset allocation and  
25 utilization;

1           “(vi) identifying an external inde-  
2           pendent evaluation entity;

3           “(vii) assessing the performance of  
4           the Operating Entity on not less than an  
5           annual basis and, if such performance is  
6           unsatisfactory, ending the agreement with  
7           such Operating Entity and selecting a new  
8           Operating Entity in accordance with clause  
9           (ii);

10          “(viii) developing multi-agency fund-  
11          ing opportunities for the selection of  
12          NAIRR resources; and

13          “(ix) coordinating resource contribu-  
14          tions from participating Federal agencies;  
15          and

16          “(B) delegating, with appropriate over-  
17          sight, operational tasks to the Operating Enti-  
18          ty, including—

19               “(i) coordinating the provisioning of  
20               resources of the NAIRR;

21               “(ii) maintaining a portal and associ-  
22               ated services for users to access resources  
23               of the NAIRR;

24               “(iii) developing policies and proce-  
25               dures for the NAIRR;

1           “(iv) hiring and managing a staff (in-  
2           cluding experts in cyber infrastructure  
3           management, data science, research de-  
4           sign, privacy, ethics, and legal and policy  
5           matters) to support the operations of the  
6           NAIRR;

7           “(v) continually modernizing NAIRR  
8           infrastructure;

9           “(vi) recommending key performance  
10          indicators for the NAIRR, in coordination  
11          with the NAIRR Steering Subcommittee  
12          and any relevant Advisory Committee;

13          “(vii) publishing publicly available an-  
14          nual reports reviewing the performance of  
15          the NAIRR, the resources of the NAIRR,  
16          and the NAIRR governance structures;

17          “(viii) establishing and administering  
18          training to new users on accessing a re-  
19          source of the NAIRR, research design, and  
20          issues related to privacy, ethics, safety, and  
21          trustworthiness of artificial intelligence  
22          systems;

23          “(ix) facilitating connections to AI  
24          testbeds; and

1                   “(x) making educational resources of  
2                   the NAIRR available to other Federal  
3                   agencies, and to Congress, for the purpose  
4                   of educating Federal Government officials  
5                   and employees about artificial intelligence.

6           “(c) **ADVISORY COMMITTEES.**—The head of the Pro-  
7 gram Management Office, acting through the Director of  
8 the Operating Entity, shall establish Advisory Committees  
9 to provide advice to the Operating Entity and the Program  
10 Management Office. Any such Advisory Committees shall  
11 be comprised of members from government agencies, the  
12 private sector, academia, and public interest groups.  
13 Chapter 10 of title 5, United States Code, shall not apply  
14 to any such Advisory Committee.

15   **“SEC. 5603. RESOURCES OF THE NAIRR.**

16           “(a) **IN GENERAL.**—The head of the Program Man-  
17 agement Office, acting through the Director of the Oper-  
18 ating Entity and in coordination with the NAIRR Steering  
19 Subcommittee and any relevant Advisory Committee,  
20 shall—

21                   “(1) coordinate and provision resources of the  
22                   NAIRR;

23                   “(2) establish processes to manage the procure-  
24                   ment of new resources of the NAIRR, and intake of

1 in-kind contribution of resources of the NAIRR,  
2 from Federal agencies or other entities;

3 “(3) establish policies on and review resources  
4 of the NAIRR for concerns related to ethics and pri-  
5 vacy;

6 “(4) retire resources of the NAIRR no longer  
7 available or needed; and

8 “(5) publicly report a summary of categories of  
9 available resources of the NAIRR, categories of  
10 sources of such resources of the NAIRR, and issues  
11 related to resources of the NAIRR.

12 “(b) RESOURCES OF THE NAIRR.—The NAIRR  
13 shall offer resources that include, at a minimum, all of  
14 the following, subject to the availability of appropriations:

15 “(1) A mix of computational resources, includ-  
16 ing—

17 “(A) on-premises, cloud-based, hybrid, and  
18 emergent resources;

19 “(B) public cloud providers providing ac-  
20 cess to popular computational and storage serv-  
21 ices for NAIRR users;

22 “(C) an open source software environment  
23 for the NAIRR;

1           “(D) an application programming interface  
2 providing structured access to artificial intel-  
3 ligence models; and

4           “(E) other types of computational re-  
5 sources.

6           “(2) Data, including by—

7           “(A)(i) in coordination with the National  
8 Institute of Standards and Technology and con-  
9 sistent with the guidance of the National  
10 Science and Technology Council titled ‘Desir-  
11 able Characteristics of Data Repositories for  
12 Federally Funded Data,’ dated May 2022, or  
13 any successor document, publishing interoper-  
14 ability standards for data repositories based on  
15 the data sharing and documentation standards  
16 and guidelines produced under section 22A of  
17 the National Institute of Standards and Tech-  
18 nology Act (15 U.S.C. 278h–1); and

19           “(ii) selecting and developing, through a  
20 competitive bidding process, data repositories to  
21 be available to NAIRR users;

22           “(B) establishing acceptable criteria for  
23 datasets used as resources of the NAIRR;

1           “(C) identifying and providing access to  
2 existing curated datasets of value and interest  
3 to the NAIRR user community;

4           “(D) establishing an artificial intelligence  
5 open data commons to facilitate community  
6 sharing and curation of data, code, and models;

7           “(E) coordinating with the Interagency  
8 Council on Statistical Policy to explore options  
9 to make Federal statistical data available to  
10 NAIRR users, including through the standard  
11 application process established under section  
12 3583(a) of title 44, United States Code; and

13           “(F) other types of computational re-  
14 sources.

15           “(3) Educational tools and services, including  
16 by—

17           “(A) facilitating and curating educational  
18 and training materials;

19           “(B) providing technical training and user  
20 support; and

21           “(C) providing targeted outreach and pro-  
22 gramming strategies to increase participation in  
23 STEM fields.

24           “(4) AI testbeds, including by—

1           “(A) in coordination with the National In-  
2           stitute of Standards and Technology, facili-  
3           tating access to artificial intelligence testbeds  
4           through which researchers can measure, bench-  
5           mark, test, or evaluate engineering or algo-  
6           rithmic developments; and

7           “(B) developing a comprehensive catalog of  
8           open AI testbeds.

9   **“SEC. 5604. NAIRR PROCESSES AND PROCEDURES.**

10   “(a) USER ELIGIBILITY.—

11           “(1) ELIGIBLE USERS.—Subject to paragraph  
12           (3), the following users shall be eligible for access to  
13           the NAIRR:

14           “(A) A researcher, educator, or student  
15           based in the United States that is affiliated  
16           with an entity described in paragraph (2).

17           “(B) An employee of an entity described in  
18           clause (iii) or (iv) of paragraph (2)(B) with a  
19           demonstrable mission-need.

20           “(2) ENTITIES DESCRIBED.—An entity de-  
21           scribed in this paragraph is an entity that satisfies  
22           the following:

23           “(A) Is based in the United States.

24           “(B) Is one of the following:

1           “(i) An institution of higher edu-  
2 cation.

3           “(ii) A nonprofit institution (as such  
4 term is defined in section 4 of the Steven-  
5 son-Wydler Technology Innovation Act of  
6 1980 (15 U.S.C. 3703)).

7           “(iii) An Executive agency.

8           “(iv) A federally funded research and  
9 development center.

10           “(v) A small business concern (as  
11 such term is defined in section 3 of the  
12 Small Business Act (15 U.S.C. 632), not-  
13 withstanding section 121.103 of title 13,  
14 Code of Federal Regulations) that has re-  
15 ceived funding from an Executive agency,  
16 including through the Small Business In-  
17 novation Research Program or the Small  
18 Business Technology Transfer Program  
19 (as described in section 9 of the Small  
20 Business Act (15 U.S.C. 638)).

21           “(vi) A category of entity that the Di-  
22 rector of the National Science Foundation  
23 and the Director of the Office of Science  
24 and Technology Policy, after consultation  
25 with the NAIRR Steering Subcommittee

1 and any relevant Advisory Committee, de-  
2 termine shall be eligible.

3 “(vii) A consortium composed of enti-  
4 ties described in clauses (i) through (vi).

5 “(3) EXCLUDED ENTITIES.—

6 “(A) IN GENERAL.—No individual is au-  
7 thorized to be an eligible user under paragraph  
8 (1) if the individual is employed by a foreign  
9 country that is listed in section 4872(f)(2) of  
10 title 10, United States Code, or is otherwise au-  
11 thorized by such country to act for or on its be-  
12 half.

13 “(B) ENFORCEMENT.—The Director of the  
14 National Science Foundation shall ensure that  
15 individuals authorized as eligible users meet the  
16 requirements of subparagraph (A).

17 “(b) PRIVACY, ETHICS, CIVIL RIGHTS AND CIVIL  
18 LIBERTIES, SAFETY, AND TRUSTWORTHINESS.—

19 “(1) IN GENERAL.—

20 “(A) REQUIREMENTS.—The head of the  
21 Program Management Office, acting through  
22 the Director of the Operating Entity and in  
23 consultation with any relevant Advisory Com-  
24 mittee, shall establish requirements, a review  
25 process for applications, and a process for au-

1           diting resources of the NAIRR and research  
2           conducted using resources of the NAIRR on  
3           matters related to privacy, ethics, safety, secu-  
4           rity, and trustworthiness of artificial intel-  
5           ligence systems developed using resources of the  
6           NAIRR.

7                   “(B) FEDERAL STATISTICAL DATA.—Any  
8           auditing process required under subparagraph  
9           (A) for Federal statistical data included in a re-  
10          source of the NAIRR shall be completed by the  
11          head of a designated statistical agency (as de-  
12          fined in section 3576(e) of title 44, United  
13          States Code), in coordination with the Chief  
14          Statistician of the United States, consistent  
15          with relevant law.

16                   “(2) CONSISTENCY.—The head of the Program  
17          Management Office shall ensure the requirements  
18          and processes described in paragraph (1) are con-  
19          sistent with the policies of the Office of Management  
20          and Budget policy and relevant policies of other Ex-  
21          ecutive agencies. The head of the Program Manage-  
22          ment Office shall coordinate with the Senior Agency  
23          Official for Privacy and the General Counsel of the  
24          National Science Foundation in ensuring compliance

1 with applicable privacy law and policy and Federal  
2 laws and regulations.

3 “(3) AVAILABILITY.—The head of the Program  
4 Management Office, acting through the Director of  
5 the Operating Entity, shall—

6 “(A) when determining access to computa-  
7 tional resources of the NAIRR, take into con-  
8 sideration the extent to which the access relates  
9 to privacy, ethics, safety, security, risk mitiga-  
10 tion, and trustworthiness of artificial intel-  
11 ligence systems, or other topics that dem-  
12 onstrate that a project is in the public interest;

13 “(B) ensure that a significant percentage  
14 of the annual allotment of computational re-  
15 sources of the NAIRR is provided to projects  
16 the primary focus of which is related to any of  
17 the topics described in subparagraph (A); and

18 “(C) to the extent that demand for access  
19 to computational resources of the NAIRR ex-  
20 ceeds availability, consider, on a priority basis,  
21 projects focusing on any of the topics described  
22 in subparagraph (A) when ranking applications  
23 for such access.

24 “(c) SCIENTIFIC INTEGRITY.—

1           “(1) IN GENERAL.—The head of the Program  
2 Management Office, acting through the Director of  
3 the Operating Entity and in consultation with any  
4 relevant Advisory Committee, shall develop guidance  
5 for—

6           “(A) addressing concerns related to mat-  
7 ters of scientific integrity, including matters re-  
8 lated to the effects or impacts of research and  
9 potential research enabled by the NAIRR; and

10           “(B) mechanisms for an employee of the  
11 Operating Entity, an employee of the Program  
12 Management Office, a member of the NAIRR  
13 Steering Subcommittee or an Advisory Com-  
14 mittee, a researcher or student affiliated with a  
15 NAIRR user described in subsection (a)(1), an  
16 employee of a provider of a resource of the  
17 NAIRR, an employee of a NAIRR funding  
18 agency, or a member of the public to report vio-  
19 lations of the guidance developed under this  
20 paragraph, including by confidential and anony-  
21 mous means.

22           “(2) CONSISTENCY WITH GOVERNMENT POLI-  
23 CIES ON SCIENTIFIC INTEGRITY.—The guidance de-  
24 veloped under paragraph (1)(A) shall be published in  
25 a publicly accessible location on the website of the

1       NAIRR. Such policies shall, to the degree prac-  
2       ticable, be consistent with—

3               “(A) the Presidential memorandum enti-  
4       tled ‘Restoring Trust in Government Through  
5       Scientific Integrity and Evidence-Based Policy-  
6       making’, dated January 27, 2021, or successor  
7       document; and

8               “(B) reports produced pursuant to such  
9       Presidential memorandum (including the re-  
10      ports entitled ‘Protecting the Integrity of Gov-  
11      ernment Science’, dated January 2022, and ‘A  
12      Framework for Federal Scientific Integrity Pol-  
13      icy and Practice’, dated January 2023, pub-  
14      lished by the National Science and Technology  
15      Council, or successor documents).

16      “(d) SYSTEM SECURITY AND USER ACCESS CON-  
17      TROLS.—The head of the Program Management Office,  
18      acting through the Director of the Operating Entity and  
19      in consultation with the NAIRR Steering Subcommittee,  
20      the Director of the Office of Management and Budget, the  
21      Director of the National Institute of Standards and Tech-  
22      nology, and the Director of the Cybersecurity and Infra-  
23      structure Security Agency—

24               “(1) shall establish minimum security require-  
25      ments for all persons interacting with the NAIRR,

1 consistent with the most recent version of the Cyber-  
2 security Framework, or successor document, main-  
3 tained by the National Institute of Standards and  
4 Technology; and

5 “(2) may establish tiers of security require-  
6 ments and user access controls beyond the minimum  
7 requirements relative to security risks.

8 “(e) FEE SCHEDULE.—The head of the Program  
9 Management Office, acting through the Director of the  
10 Operating Entity, may establish a fee schedule for access  
11 to the NAIRR. Fees charged under this subsection may  
12 be retained and used for the purposes of this title. The  
13 Operating Entity may only charge fees in such fee sched-  
14 ule. Such fee schedule—

15 “(1) may differ by type of eligible user and type  
16 of affiliated entity described in subsection (a);

17 “(2) shall include a free tier of access based on  
18 appropriated funds and anticipated costs and de-  
19 mand;

20 “(3) may include cost-based charges for eligible  
21 users to purchase resources of the NAIRR beyond  
22 the resources included in a free or subsidized tier;  
23 and

24 “(4) shall ensure that the primary purpose of  
25 the NAIRR is to support research.

1       “(f) RESEARCH SECURITY.—The head of the Pro-  
2 gram Management Office, acting through the Director of  
3 the Operating Entity and in consultation with the NAIRR  
4 Steering Subcommittee and the Director of the Office of  
5 Science and Technology Policy, shall—

6           “(1) ensure conformance with the requirements  
7 of National Security Presidential Memorandum–33  
8 (relating to supported research and development na-  
9 tional policy), issued January 2021, and its imple-  
10 mentation guidance on research security and re-  
11 search integrity, or any successor policy document or  
12 guidance, by establishing NAIRR operating prin-  
13 ciples that emphasize the research integrity prin-  
14 ciples of openness, reciprocity, and transparency;  
15 and

16           “(2) designate a member of the leadership team  
17 for the Operating Entity as a research security point  
18 of contact with responsibility for overseeing conform-  
19 ance with the National Security Presidential Memo-  
20 randum–33 and its implementation guidance, or any  
21 successor policy document or guidance.

22 **“SEC. 5605. NAIRR FUNDING.**

23       “To carry out this title, to the maximum extent prac-  
24 ticable, the NAIRR is authorized to accept and use dona-

1 tions of cash, services, and personal property from the pri-  
2 vate sector.”.

3 (c) CONFORMING AMENDMENTS.—The table of con-  
4 tents in section 2(b) of the William M. (Mac) Thornberry  
5 National Defense Authorization Act for Fiscal Year 2021  
6 (Public Law 116–283; 134 Stat. 3388) is amended by in-  
7 serting after the items relating to title LV the following:

“TITLE LVI—NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH  
RESOURCE

“Sec. 5601. Definitions.

“Sec. 5602. Establishment; governance.

“Sec. 5603. Resources of the NAIRR.

“Sec. 5604. NAIRR processes and procedures.

“Sec. 5605. NAIRR funding.”.

8 **Subtitle B—National Artificial In-**  
9 **telligence Research Resource**  
10 **Pilot Program**

11 **SEC. 211. NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH**  
12 **RESOURCE PILOT PROGRAM.**

13 (a) PARTNERSHIPS.—As part of the National Artifi-  
14 cial Intelligence Research Resource pilot program (in this  
15 section referred to as the “Program”), the Director of the  
16 National Science Foundation (in this section referred to  
17 as the “Director”) shall partner with leading technology  
18 companies to increase access to world-class private sector  
19 computing, models, data, and software resources in the re-  
20 search community.

21 (b) CONNECTION.—The Director shall ensure the  
22 Program is operationally capable of connecting research-

1 ers and educators in the United States to critical AI re-  
2 sources.

3 **Subtitle C—Prize Competitions for**  
4 **Artificial Intelligence Research**  
5 **and Development**

6 **SEC. 221. PRIZE COMPETITIONS FOR ARTIFICIAL INTEL-**  
7 **LIGENCE RESEARCH AND DEVELOPMENT.**

8 (a) DEFINITIONS.—In this section:

9 (1) DIRECTOR.—Except as otherwise expressly  
10 provided, the term “Director” means the Director of  
11 the National Science Foundation.

12 (2) NONPROFIT ORGANIZATION.—The term  
13 “nonprofit organization” has the meaning given  
14 such term in section 201 of title 35, United States  
15 Code.

16 (b) ESTABLISHMENT OF PROGRAM.—

17 (1) IN GENERAL.—Not later than 12 months  
18 after the date of enactment of this Act, the Director,  
19 in coordination with the Interagency Committee es-  
20 tablished under section 5103 of the National Artifi-  
21 cial Intelligence Initiative Act of 2020 (15 U.S.C.  
22 9413), shall establish a program (in this section re-  
23 ferred to as the “AI Grand Challenges Program”) to  
24 award prizes, utilizing the authorities and processes  
25 established under section 24 of the Stevenson-

1       Wydler Technology Innovation Act of 1980 (15  
2       U.S.C. 3719), to eligible participants as determined  
3       by the Director pursuant to subsection (e) to stimu-  
4       late artificial intelligence research, development, and  
5       commercialization that solves or advances specific,  
6       well-defined, and measurable grand challenges in 1  
7       or more of the following categories:

- 8               (A) National security.
- 9               (B) Cybersecurity.
- 10              (C) Health.
- 11              (D) Energy.
- 12              (E) Environment.
- 13              (F) Transportation.
- 14              (G) Agriculture and rural development.
- 15              (H) Education and workforce training.
- 16              (I) Manufacturing.
- 17              (J) Space and aerospace.
- 18              (K) Quantum computing, including molec-  
19              ular modeling and simulation.
- 20              (L) Materials science.
- 21              (M) Supply chain resilience.
- 22              (N) Disaster preparedness.
- 23              (O) Natural resources management.
- 24              (P) Cross cutting challenges in artificial  
25              intelligence,           including           robustness,

1 interpretability, explainability, transparency,  
2 safety, privacy, content provenance, and bias  
3 mitigation.

4 (2) ROTATORS.—Participants in the Rotator  
5 Program of the National Science Foundation may  
6 support the development and implementation of the  
7 AI Grand Challenges Program.

8 (c) GRAND CHALLENGES SELECTION AND GRAND  
9 CHALLENGES INFORMATION.—

10 (1) IN GENERAL.—

11 (A) CONSULTATION ON IDENTIFICATION  
12 AND SELECTION.—The Director shall consult  
13 with the Director of the Office of Science and  
14 Technology Policy, the Director of the National  
15 Institute of Standards and Technology, the Di-  
16 rector of the Defense Advanced Research  
17 Projects Agency, the heads of relevant Federal  
18 agencies, and the National Artificial Intelligence  
19 Advisory Committee to identify and select arti-  
20 ficial intelligence research and development  
21 grand challenges in which eligible participants  
22 will compete to solve or advance for prize  
23 awards under subsection (b).

24 (B) PUBLIC INPUT ON IDENTIFICATION.—

25 The Director shall also seek public input on the

1 identification of artificial intelligence research  
2 and development grand challenges.

3 (2) PROBLEM STATEMENTS; SUCCESS  
4 METRICS.—For each grand challenge selected under  
5 paragraph (1) and the grand challenge under para-  
6 graph (3), the Director shall—

7 (A) establish a specific and well-defined  
8 grand challenge problem statement and ensure  
9 that such problem statement is published on the  
10 National Science Foundation website linking  
11 out to relevant prize competition listings on the  
12 website Challenge.gov that is managed by the  
13 General Services Administration; and

14 (B) establish and publish on the website  
15 Challenge.gov clear targets, success metrics,  
16 and validation protocols for the prize competi-  
17 tions designed to address each grand challenge,  
18 in order to provide specific benchmarks that  
19 will be used to evaluate submissions to the prize  
20 competition.

21 (3) GRAND CHALLENGE FOR ARTIFICIAL INTEL-  
22 LIGENCE-ENABLED CANCER BREAKTHROUGHS.—

23 (A) REQUIRED PRIZE COMPETITION.—Not  
24 later than 1 year after the date of enactment of  
25 this Act, the Director, in consultation with the

1 Director of the Office of Science and Tech-  
2 nology Policy and the Director of the National  
3 Institutes of Health, shall establish not less  
4 than 1 grand challenge in which eligible partici-  
5 pants will compete in a prize competition to  
6 solve or advance solutions for prize awards  
7 under subsection (b) that seek to advance med-  
8 ical breakthroughs to address 1 or more of the  
9 most lethal forms of cancer and related  
10 comorbidities. The grand challenge shall relate  
11 to detection, diagnostics, treatments, thera-  
12 peutics, or other innovations in artificial intel-  
13 ligence to increase the total quality-adjusted life  
14 years of those affected or likely to be affected  
15 by cancer.

16 (B) PRIZE AMOUNT.—In carrying out the  
17 prize competition under subparagraph (A), the  
18 Director shall award not less than \$10,000,000  
19 in cash prize awards to each winner.

20 (4) AMBITIOUS AND ACHIEVABLE GOALS.—  
21 Grand challenges selected under paragraph (1) and  
22 the grand challenge under paragraph (3) shall be  
23 ambitious but achievable goals that utilize science,  
24 technology, and innovation to solve or advance solu-  
25 tions to problems to benefit the United States.

1 (d) ADDITIONAL CONSULTATION.—The Director may  
2 consult with, and incorporate effective practices from,  
3 other entities that have developed successful large-scale  
4 technology demonstration prize competitions, including  
5 the Defense Advanced Research Projects Agency, the Na-  
6 tional Aeronautics and Space Administration, other Fed-  
7 eral agencies, private sector enterprises, and nonprofit or-  
8 ganizations, in the development and implementation of the  
9 AI Grand Challenges Program and related prize competi-  
10 tions, including on the requirements under subsection (e).

11 (e) REQUIREMENTS.—

12 (1) IN GENERAL.—The Director shall develop  
13 requirements for—

14 (A) the prize competition process, includ-  
15 ing eligibility criteria for participants, con-  
16 sistent with the requirements under paragraph  
17 (2); and

18 (B) testing, judging, and verification pro-  
19 cedures for submissions to receive a prize award  
20 under the AI Grand Challenges Program.

21 (2) ELIGIBILITY REQUIREMENT AND JUDG-  
22 ING.—

23 (A) ELIGIBILITY.—In accordance with the  
24 requirement described in section 24(g)(3) of the  
25 Stevenson-Wydler Technology Innovation Act of

1 1980 (15 U.S.C. 3719(g)(3)), a recipient of a  
2 prize award under the AI Grand Challenges  
3 Program—

4 (i) that is a private entity shall be in-  
5 corporated in and maintain a primary  
6 place of business in the United States; and

7 (ii) who is an individual, whether par-  
8 ticipating singly or in a group, shall be a  
9 citizen or permanent resident of the United  
10 States.

11 (B) JUDGES.—In accordance with section  
12 24(k) of the Stevenson-Wydler Technology In-  
13 novation Act of 1980 (15 U.S.C. 3719(k)), a  
14 judge of a prize competition under the AI  
15 Grand Challenges Program may be an indi-  
16 vidual from the private sector.

17 (f) PRIZE AMOUNT.—

18 (1) IN GENERAL.—In carrying out the AI  
19 Grand Challenges Program, the Director—

20 (A) shall award not less than \$1,000,000  
21 in cash prize awards to each winner of the prize  
22 competitions, except as provided in subsection  
23 (c)(3); and

24 (B) may also utilize non-cash awards.

1           (2) LARGER AWARDS.—The Director may  
2           award prizes under the AI Grand Challenges Pro-  
3           gram that are more than \$50,000,000, pursuant to  
4           the requirements under section 24(m)(4)(A) of the  
5           Stevenson-Wydler Technology Innovation Act of  
6           1980 (15 U.S.C. 3719(m)(4)(A)).

7           (g) FUNDING.—

8           (1) IN GENERAL.—In accordance with section  
9           24(m)(1) of the Stevenson-Wydler Technology Inno-  
10          vation Act of 1980 (15 U.S.C. 3719(m)(1)), the Di-  
11          rector may request and accept funds from other  
12          Federal agencies, State, United States territory,  
13          local, or Tribal government agencies, for-profit enti-  
14          ties, and nonprofit organizations to support the AI  
15          Grand Challenges Program.

16          (2) PROHIBITION ON CONSIDERATION FOR SUP-  
17          PORT.—The Director may not consider any support  
18          provided by an agency or entity under paragraph (1)  
19          in determining the winners of prize awards under  
20          subsection (b).

21          (h) REPORTS.—

22          (1) NOTIFICATION OF WINNING SUBMISSION.—  
23          Not later than 60 days after the date on which a  
24          prize is awarded under the AI Grand Challenges  
25          Program, the Director shall submit to the Com-

1        mittee on Commerce, Science, and Transportation of  
2        the Senate, the Committee on Science, Space, and  
3        Technology of the House of Representatives, and  
4        other relevant committees of Congress a report that  
5        describes the winning submission to the prize com-  
6        petition and its benefits to the United States.

7            (2) BIENNIAL REPORT.—

8            (A) IN GENERAL.—Not later than 2 years  
9        after the date of enactment of this Act, and bi-  
10        ennially thereafter, the Director shall submit to  
11        the Committee on Commerce, Science, and  
12        Transportation of the Senate, the Committee on  
13        Science, Space, and Technology of the House of  
14        Representatives, and other relevant committees  
15        of Congress a report that includes—

16            (i) a description of the activities car-  
17        ried out under this Act;

18            (ii) a description of the active com-  
19        petitions and the results of completed com-  
20        petitions under the AI Grand Challenges  
21        Program; and

22            (iii) efforts to provide information to  
23        the public about the AI Grand Challenges  
24        Program to encourage participation.

1 (B) PUBLIC ACCESSIBILITY.—The Director  
2 shall make the biennial report required under  
3 subparagraph (A) publicly accessible, including  
4 by posting the biennial report on the website of  
5 the National Science Foundation in an easily  
6 accessible location.

7 (i) ACCESSIBILITY.—In carrying out the AI Grand  
8 Challenges Program, the Director shall post the active  
9 prize competitions and available prize awards under sub-  
10 section (b) to Challenge.gov after the grand challenges are  
11 selected and the prize competitions are designed pursuant  
12 to subsections (c) and (e) to ensure the prize competitions  
13 are widely accessible to eligible participants.

14 **Subtitle D—Grants to Perform Re-**  
15 **search Regarding the Use of**  
16 **Generative Artificial Intel-**  
17 **ligence in Health Care**

18 **SEC. 231. GRANTS TO PERFORM RESEARCH REGARDING**  
19 **THE USE OF GENERATIVE ARTIFICIAL INTEL-**  
20 **LIGENCE IN HEALTH CARE.**

21 (a) IN GENERAL.—The Director of the National In-  
22 stitutes of Health shall establish a grant program to  
23 award grants to eligible entities to perform research re-  
24 garding the use of generative artificial intelligence in  
25 health care.

1 (b) PERMISSIBLE RESEARCH.—Research funded pur-  
2 suant to a grant under this section may include research  
3 regarding the use of generative artificial intelligence to—

4 (1) improve the ability of health care practi-  
5 tioners to record comprehensive notes or ask medi-  
6 cally relevant questions during an appointment with  
7 a patient;

8 (2) reduce the administrative or documentation  
9 burden on clinicians;

10 (3) expedite the health insurance claims proc-  
11 ess;

12 (4) improve the efficiency and quality of cus-  
13 tomer service in the health care sector; or

14 (5) otherwise improve health care, as deter-  
15 mined appropriate by the Director of the National  
16 Institutes of Health.

17 (c) PRIORITY.—In awarding grants under this sec-  
18 tion, the Director of the National Institutes of Health  
19 shall give priority to eligible entities that—

20 (1) encourage the adoption and deployment of  
21 generative artificial intelligence across the health  
22 care sector;

23 (2) invest in workforce development of clinicians  
24 and administrators;

1           (3) mitigate burnout in the health care work-  
2           force; or

3           (4) improve the availability of patient care for  
4           members of a medically underserved population.

5           (d) DEFINITIONS.—In this section:

6           (1) ARTIFICIAL INTELLIGENCE.—The term “ar-  
7           tificial intelligence” has the meaning given such  
8           term in section 5002 of the National Artificial Intel-  
9           ligence Initiative Act of 2020 (15 U.S.C. 9401).

10          (2) ELIGIBLE ENTITY.—The term “eligible enti-  
11          ty” means—

12                 (A) an institution of higher education (as  
13                 such term is defined in section 101 of the High-  
14                 er Education Act of 1965 (20 U.S.C. 1001));

15                 (B) an organization described in subsection  
16                 (c)(3) of section 501 of the Internal Revenue  
17                 Code of 1986 and exempt from tax under sub-  
18                 section (a) of such section; or

19                 (C) an agency of—

20                         (i) the Federal Government;

21                         (ii) a State;

22                         (iii) a unit of local government; or

23                         (iv) an Indian Tribe.

24          (3) GENERATIVE ARTIFICIAL INTELLIGENCE.—

25          The term “generative artificial intelligence” means

1 artificial intelligence that, in response to a prompt,  
2 uses data to produce text, media, computer code, or  
3 other content.

4 (4) **MEDICALLY UNDERSERVED POPULATION.**—

5 The term “medically underserved population” has  
6 the meaning given such term in section 330(b) of  
7 the Public Health Service Act (42 U.S.C. 254b(b)).

8 **Subtitle E—Department of Agri-**  
9 **culture and National Science**  
10 **Foundation Research and De-**  
11 **velopment Coordination**

12 **SEC. 241. DEPARTMENT OF AGRICULTURE AND NATIONAL**  
13 **SCIENCE FOUNDATION RESEARCH AND DE-**  
14 **VELOPMENT COORDINATION.**

15 (a) **IN GENERAL.**—The Secretary of Agriculture (in  
16 this section referred to as the “Secretary”) and the Direc-  
17 tor of the National Science Foundation (in this section  
18 referred to as the “Director”) shall carry out cross-cutting  
19 and collaborative research and development activities fo-  
20 cused on the joint advancement of Department of Agri-  
21 culture and National Science Foundation mission require-  
22 ments and priorities.

23 (b) **MEMORANDA OF UNDERSTANDING.**—The Sec-  
24 retary and the Director shall coordinate the activities  
25 under subsection (a) through the establishment of memo-

1 randa of understanding or other appropriate interagency  
2 agreements. Such memoranda or agreements, as the case  
3 may be, shall require the use of a competitive, merit review  
4 process, as appropriate. Such activities may include com-  
5 ponents proposed by Federal agencies, institutions of  
6 higher education, non-profit institutions, and other appro-  
7 priate entities, as determined appropriate under the  
8 memoranda or agreements.

9 (c) COORDINATION.—In carrying out the activities  
10 under subsection (a), the Secretary and the Director  
11 may—

12 (1) conduct collaborative research in a variety  
13 of focus areas, such as—

14 (A) plant, animal, and microbial biology  
15 relevant to agricultural challenges;

16 (B) food and nutrition security;

17 (C) rural economic revitalization;

18 (D) cyber-physical systems;

19 (E) smart and connected communities;

20 (F) advanced sensors and models of soil  
21 and plant processes;

22 (G) nano-biosensing and analytical tech-  
23 nologies to improve food safety, water quality,  
24 biosecurity, plant and animal diseases, and soil  
25 health;

1 (H) monitoring of food- or water-borne  
2 pathogens, allergens, and accidental, natural, or  
3 intentional bio- or chemical contaminants;

4 (I) key emerging technology areas such as  
5 artificial intelligence, machine learning, automa-  
6 tion, robotics, digital agriculture, and informa-  
7 tion and communication technology for agricul-  
8 tural uses;

9 (J) development and testing of new preci-  
10 sion agriculture tools; and

11 (K) workforce needs, education, and devel-  
12 opment;

13 (2) promote collaboration, open community-  
14 based development, and data and information shar-  
15 ing between Federal agencies, institutions of higher  
16 education, community colleges, area career and tech-  
17 nical education schools, nonprofit institutions, and  
18 other appropriate entities by providing the necessary  
19 access and secure data and information transfer ca-  
20 pabilities;

21 (3) support research infrastructure, including  
22 new facilities, equipment and broadband deployment,  
23 as the Secretary and Director determine necessary;

24 (4) develop translational technologies for com-  
25 mercial utilization;

1           (5) organize education, training, and research  
2 initiatives relating to science, technology, engineer-  
3 ing, and mathematics (STEM) education and work-  
4 force development, which may include—

5           (A) activities supported by the Cooperative  
6 Extension System;

7           (B) industrial partnership programs;

8           (C) workshops for educating preschool  
9 through grade 12 teachers on how to increase  
10 agricultural literacy;

11           (D) development of agricultural-based  
12 science curricula for kindergarten through  
13 grade 12 students; and

14           (E) distribution of resources for educators  
15 to implement curricula, such as the workshops  
16 developed under subparagraph (C);

17           (6) award grants to institutions of higher edu-  
18 cation, community colleges, area career and tech-  
19 nical education schools, or eligible nonprofit institu-  
20 tions (or consortia thereof), to establish a Center for  
21 Agricultural Research, Education, and Workforce  
22 Development; and

23           (7) facilitate relationships between public and  
24 private entities to carry out the activities specified in

1 paragraphs (1) through (6) upon the termination of  
2 any agreement entered into under subsection (b).

3 (d) AGREEMENTS.—In carrying out the activities  
4 under subsection (a), the Secretary and the Director are  
5 authorized to—

6 (1) carry out reimbursable agreements between  
7 the Department of Agriculture, the National Science  
8 Foundation, and other entities in order to maximize  
9 the effectiveness of research and development; and

10 (2) collaborate with other Federal agencies, as  
11 appropriate.

12 (e) REPORT.—Not later than two years after the date  
13 of the enactment of this Act, the appropriate committees  
14 of Congress, a report detailing the following:

15 (1) Interagency coordination between each Fed-  
16 eral agency involved in the research and development  
17 activities carried out under this section.

18 (2) Potential opportunities to expand the tech-  
19 nical capabilities of the Department of Agriculture  
20 and the National Science Foundation.

21 (3) Collaborative research achievements.

22 (4) Areas of future mutually beneficial suc-  
23 cesses.

1           (5) Continuation of coordination activities be-  
2           tween the Department of Agriculture and the Na-  
3           tional Science Foundation.

4           (f) RESEARCH SECURITY.—The activities authorized  
5           under this section shall be applied in a manner consistent  
6           with subtitle D of title VI of the Research and Develop-  
7           ment, Competition, and Innovation Act (42 U.S.C. 19231  
8           et seq.; enacted as part of division B of Public Law 117–  
9           167)

10          (g) DEFINITIONS.—In this section:

11           (1) APPROPRIATE COMMITTEES OF CON-  
12           GRESS.—The term “appropriate committees of Con-  
13           gress” means each of the following committees:

14                   (A) The Committee on Agriculture of the  
15                   House of Representatives.

16                   (B) The Committee on Science, Space, and  
17                   Technology of the House of Representatives.

18                   (C) The Committee on Commerce, Science,  
19                   and Transportation of the Senate.

20                   (D) The Committee on Agriculture, Nutri-  
21                   tion, and Forestry of the Senate.

22           (2) AREA CAREER AND TECHNICAL EDUCATION  
23           SCHOOL.—The term “area career and technical edu-  
24           cation school” has the meaning given such term in

1 section 3 of the Carl D. Perkins Career and Tech-  
2 nical Education Act of 2006 (20 U.S.C. 2302).

3 (3) COMMUNITY COLLEGE.—The term “commu-  
4 nity college” has the meaning given such term in  
5 section 3167B of the Energy Science Education En-  
6 hancement Act (42 U.S.C. 7381c–3).

7 (4) INSTITUTION OF HIGHER EDUCATION.—The  
8 term “institution of higher education” has the  
9 meaning given such term in section 101 of the High-  
10 er Education Act of 1965 (20 U.S.C. 1001).

11 **Subtitle F—Department of Energy**  
12 **Artificial Intelligence Research**  
13 **Program**

14 **SEC. 251. DEPARTMENT OF ENERGY ARTIFICIAL INTEL-**  
15 **LIGENCE RESEARCH PROGRAM.**

16 (a) IN GENERAL.—Title LV of the National Artificial  
17 Intelligence Initiative Act of 2020 (Public Law 116–283)  
18 is amended to read as follows:

19 **“TITLE LV—DEPARTMENT OF**  
20 **ENERGY ARTIFICIAL INTEL-**  
21 **LIGENCE RESEARCH PRO-**  
22 **GRAM**

“Sec. 5501. Department of Energy artificial intelligence research program.

“Sec. 5502. Ensuring energy security for data centers and computing re-  
sources.

1 **“SEC. 5501. DEPARTMENT OF ENERGY ARTIFICIAL INTEL-**  
2 **LIGENCE RESEARCH PROGRAM.**

3 “(a) IN GENERAL.—The Secretary shall carry out a  
4 cross-cutting research and development program to ad-  
5 vance artificial intelligence tools, systems, capabilities, and  
6 workforce needs and develop artificial intelligence capabili-  
7 ties for the purposes of advancing the missions of the De-  
8 partment (in this section referred to as the ‘program’).  
9 In carrying out such program, the Secretary shall coordi-  
10 nate across all relevant offices and programs of the De-  
11 partment, including the Office of Science, the Office of  
12 Energy Efficiency and Renewable Energy, the Office of  
13 Nuclear Energy, the Office of Fossil Energy, the Office  
14 of Electricity, the Office of Cybersecurity, Energy Secu-  
15 rity, Emergency Response, and the Advanced Research  
16 Projects Agency-Energy.

17 “(b) RESEARCH AREAS.—In carrying out the pro-  
18 gram, the Secretary shall award financial assistance to eli-  
19 gible entities to carry out research projects on topics in-  
20 cluding the following:

21 “(1) The application of artificial intelligence  
22 systems to improve large-scale simulations of natural  
23 and other phenomena.

24 “(2) The study of applied mathematics, com-  
25 puter science, and statistics, including foundations  
26 of methods and systems of artificial intelligence,

1 causal and statistical inference, and the development  
2 of algorithms for artificial intelligence systems.

3 “(3) The analysis of existing and new large-  
4 scale datasets from science and engineering experi-  
5 ments and simulations, including energy simulations  
6 and sponsored research activities, and, as deter-  
7 mined by the Secretary, other priorities of the De-  
8 partment that utilize artificial intelligence tools and  
9 techniques.

10 “(4) The development of operation and control  
11 systems that enhance automated, intelligent deci-  
12 sion-making capabilities.

13 “(5) The development of advanced computing  
14 hardware and computer architecture tailored to arti-  
15 ficial intelligence systems, including the following:

16 “(A) The codesign of software and com-  
17 putational hardware.

18 “(B) Energy-efficient computing hardware  
19 and algorithms for artificial intelligence train-  
20 ing and inference.

21 “(C) Mechanisms to improve the energy ef-  
22 ficiency of data centers, including relevant en-  
23 ergy efficiency benchmarks for such centers.

24 “(6) The aggregation, curation, and distribu-  
25 tion of standardized datasets for emerging artificial

1 intelligence research fields and applications, includ-  
2 ing methods for addressing data scarcity.

3 “(7) The development of advanced artificial in-  
4 telligence systems for pressing scientific, energy, and  
5 national security applications.

6 “(8) The development of trustworthy artificial  
7 intelligence systems, including the following:

8 “(A) Algorithmic explainability.

9 “(B) Analytical methods for identifying  
10 and mitigating bias in artificial intelligence sys-  
11 tems.

12 “(C) Safety and robustness, including as-  
13 surance, verification, validation, security, and  
14 control.

15 “(c) TECHNOLOGY TRANSFER.—In carrying out the  
16 program, the Secretary shall support technology transfer  
17 of artificial intelligence systems for the benefit of society  
18 and United States economic competitiveness.

19 “(d) FACILITY USE AND UPGRADES.—In carrying  
20 out the program, the Secretary shall carry out the fol-  
21 lowing:

22 “(1) Make available high-performance com-  
23 puting infrastructure at National Laboratories for  
24 the development and use of advanced artificial intel-  
25 ligence systems.

1           “(2) Make any upgrades necessary to enhance  
2           the use of existing computing facilities for artificial  
3           intelligence systems, including upgrades to hardware  
4           and other resources necessary for developing, train-  
5           ing, and evaluating advanced artificial intelligence  
6           technologies.

7           “(3) Establish new computing capabilities nec-  
8           essary to manage data and conduct high perform-  
9           ance computing that enables the development and  
10          use of advanced artificial intelligence systems.

11          “(4) Maintain and improve, as needed, net-  
12          working infrastructure, data input and output mech-  
13          anisms, and data analysis, storage, and service capa-  
14          bilities.

15          “(5) Facilitate the development of unclassified  
16          and classified high-performance computing systems  
17          and artificial intelligence platforms through Depart-  
18          ment-owned infrastructure data and computing fa-  
19          cilities.

20          “(6) Provide other resources necessary for the  
21          Department to develop, train, and evaluate advanced  
22          artificial intelligence systems and related tech-  
23          nologies;

24          “(e) TESTBEDS FOR NEXT-GENERATION COMPUTING  
25          PLATFORMS AND INFRASTRUCTURE.—

1           “(1) IN GENERAL.—In carrying out the pro-  
2           gram, the Secretary shall establish at least one data  
3           center testbed for the development and assessment  
4           of hardware and algorithms for energy-efficient and  
5           energy-flexible artificial intelligence training and in-  
6           ference.

7           “(2) ACTIVITIES.—In carrying out the testbed  
8           established under paragraph (1), the Secretary shall  
9           carry out the following:

10                   “(A) Test and evaluate new software,  
11                   hardware, codesign of hardware and software,  
12                   algorithms, networking, and other artificial in-  
13                   telligence-based technologies and applications to  
14                   improve energy efficiency across the artificial  
15                   intelligence ecosystem.

16                   “(B) Carry out cooperative research  
17                   projects with industry, including end user com-  
18                   panies, hardware systems vendors, artificial in-  
19                   telligence developers, data center developers and  
20                   operators, energy utilities, and other appro-  
21                   priate stakeholders.

22           “(f) AGGREGATION, CURATION, AND DISTRIBUTION  
23           OF ARTIFICIAL INTELLIGENCE TRAINING DATASETS.—In  
24           carrying out activities described in subsection (b)(6), the  
25           Secretary shall develop methods, platforms, protocols, and

1 other tools required for efficient, responsible, and effective  
2 aggregation, generation, curation, and distribution of arti-  
3 ficial intelligence training and inference datasets, includ-  
4 ing the following:

5           “(1) Assembling, aggregating, and curating  
6 large-scale training data for advanced artificial intel-  
7 ligence systems, including outputs from research  
8 programs of the Department and other open science  
9 data, with the goal of developing comprehensive sci-  
10 entific artificial intelligence training databases and  
11 testing and validation data.

12           “(2) Developing dataset documentation and  
13 metadata protocols and visualization tools, taking  
14 into account appropriate standards and guidelines to  
15 promote interoperability and consistency in docu-  
16 mentation.

17           “(3) Developing and implementing appropriate  
18 data management plans for the ethical, responsible,  
19 and secure use of classified and unclassified sci-  
20 entific data.

21           “(4) Identifying, curating, and safely distrib-  
22 uting, as appropriate based on the application, the  
23 following:

24                   “(A) Scientific and experimental depart-  
25 mental datasets.

1                   “(B) Sponsored research activities that are  
2                   needed for the training of foundational and  
3                   adapted downstream artificial intelligence sys-  
4                   tems.

5                   “(5) Partnering with stakeholders to curate  
6                   critical datasets that reside outside the Department  
7                   but are determined by the Secretary to be critical to  
8                   optimizing the capabilities of advanced artificial in-  
9                   telligence systems relevant to the missions of the De-  
10                  partment.

11                  “(g) DEVELOPMENT OF ADVANCED ARTIFICIAL IN-  
12                  TELLIGENCE SYSTEMS FOR PRESSING SCIENTIFIC, EN-  
13                  ERGY, AND NATIONAL SECURITY APPLICATIONS.—In car-  
14                  rying out subsection (b)(7), the Secretary shall carry out  
15                  the following:

16                  “(1) Develop innovative concepts in applied  
17                  mathematics, computer science, engineering, and  
18                  other science disciplines needed for advanced artifi-  
19                  cial intelligence systems.

20                  “(2) Develop best-in-class advanced artificial in-  
21                  telligence systems, model derivatives that support  
22                  downstream use cases, and other technologies to  
23                  solve pressing scientific, energy, and national secu-  
24                  rity challenges.

1           “(3) Carry out cooperative research projects  
2           with industry, including end user companies, hard-  
3           ware systems vendors, and artificial intelligence soft-  
4           ware companies, to advance artificial intelligence  
5           technologies relevant to the missions of the Depart-  
6           ment and mitigate risks associated with such tech-  
7           nologies.

8           “(4) In coordination with the Secretary of Com-  
9           merce and the Secretary of Homeland Security, re-  
10          search counter-adversarial artificial intelligence solu-  
11          tions to predict, prevent, mitigate, and respond to  
12          threats to critical infrastructure, energy security,  
13          and nuclear nonproliferation, and biological and  
14          chemical threats.

15          “(5) In coordination with energy utilities, State  
16          energy offices, data center developers and operators,  
17          and other key stakeholders the Secretary determines  
18          appropriate, carry out research to examine how arti-  
19          ficial intelligence technologies may be impacted by or  
20          applied to energy supply bottlenecks, energy demand  
21          projections, site reliability challenges, and data cen-  
22          ter operational flexibilities.

23          “(6) Establish crosscutting research efforts to  
24          understand and mitigate artificial intelligence-related

1 risks, including the establishment of unclassified and  
2 classified data platforms across the Department.

3 “(h) SHARED RESOURCES FOR ARTIFICIAL INTEL-  
4 LIGENCE.—

5 “(1) IN GENERAL.—As part of the program,  
6 the Secretary shall identify, support, and sustain  
7 shared resources and enabling tools that have the  
8 potential to accelerate the pace of scientific discovery  
9 and technological innovation with respect to the mis-  
10 sions of the Department relating to science, energy,  
11 and national security.

12 “(2) CONSULTATION.—In carrying out para-  
13 graph (1), the Secretary shall consult with relevant  
14 experts in the Federal Government, industry, energy  
15 utilities, academia, State energy offices, and the Na-  
16 tional Laboratories.

17 “(3) FOCUS.—Shared resources and enabling  
18 tools referred to in paragraph (1) shall include the  
19 following:

20 “(A) Scientific data and knowledge bases  
21 for training artificial intelligence systems.

22 “(B) Benchmarks and competitions for  
23 evaluating advances in artificial intelligence sys-  
24 tems.

1           “(C) Platform technologies that lower the  
2           cost of generating training data or enable the  
3           generation of training data.

4           “(D) High-performance computing, includ-  
5           ing hybrid computing systems that integrate ar-  
6           tificial intelligence and high-performance com-  
7           puting.

8           “(E) The combination of artificial intel-  
9           ligence and scientific automation, such as cloud  
10          labs and self-driving labs.

11          “(F) Tools that enable artificial intel-  
12          ligence to solve inverse design problems.

13          “(G) Testbeds for accelerating progress at  
14          the intersection of artificial intelligence and  
15          cyberphysical systems.

16          “(H) Testbeds for testing and evaluating  
17          artificial intelligence-based technologies and ap-  
18          plications to improve energy efficiency across  
19          artificial intelligence systems, in accordance  
20          with subsection (e).

21          “(4) INTERAGENCY COORDINATION.—The Sec-  
22          retary shall ensure coordination with, and avoid un-  
23          necessary duplication of, activities to provide shared  
24          resources with the National Science Foundation, the  
25          agencies participating in the Interagency Committee

1 established under section 5103 of this Act, and the  
2 Networking and Information Technology Research  
3 and Development Program authorized under section  
4 101 of the High Performance Computing Act of  
5 1991 (15 U.S.C. 5511).

6 “(i) ARTIFICIAL INTELLIGENCE RESEARCH INSTI-  
7 TUTES.—The Secretary shall support on a competitive,  
8 merit-reviewed basis not fewer than two multidisciplinary  
9 artificial intelligence research institutes pursuant to sec-  
10 tion 5201 of this Act.

11 “(j) RESEARCH TO IMPROVE ENERGY PERMITTING  
12 PROCESSES.—In consultation with the Federal Permitting  
13 Improvement Steering Council established under section  
14 41002(a) of the FAST Act (42 U.S.C. 4370m-1(a)), the  
15 Secretary shall carry out research and development activi-  
16 ties to evaluate the potential for utilizing artificial intel-  
17 ligence to improve Federal permitting processes for en-  
18 ergy-related projects, including critical materials (as such  
19 term is defined in section 7002 of title VII of division Z  
20 of the Consolidated Appropriations Act, 2021 (Public Law  
21 116–260; 30 U.S.C. 1606)) projects, by building tools to  
22 improve future reviews and analyzing data from past envi-  
23 ronmental and other permitting reviews to inform more  
24 flexible and effective categorical exclusions.

25 “(k) RISK MANAGEMENT.—

1           “(1) IN GENERAL.—The Secretary shall review  
2           agency policies for risk management in artificial in-  
3           telligence related projects and issue, as necessary,  
4           policies and principles that are consistent with the  
5           framework developed under section 22A of the Na-  
6           tional Institute of Standards and Technology Act  
7           (15 U.S.C. 278h–1(c)).

8           “(2) TAXONOMY.—The Secretary, in consulta-  
9           tion with the Secretary of Homeland Security, the  
10          Secretary of Defense, the Director of National Intel-  
11          ligence, the Director of the National Security Agen-  
12          cy, and the Director of the National Institute of  
13          Standards and Technology, shall develop a taxonomy  
14          of safety and security risks associated with artificial  
15          intelligence systems relevant to the missions of the  
16          Department.

17          “(1) STEM EDUCATION AND WORKFORCE DEVELOP-  
18          MENT.—As part of the program, the Secretary, in coordi-  
19          nation with the Director of the National Science Founda-  
20          tion, may develop the required workforce, and hire and  
21          train researchers to meet the rising demand for artificial  
22          intelligence talent, including by carrying out the following:

23                  “(1) Providing training, grants, and research  
24                  opportunities, including experiential learning experi-

1 ences for undergraduate and graduate students in  
2 advanced artificial intelligence systems.

3 “(2) Carrying out public awareness campaigns  
4 regarding artificial intelligence related career paths.

5 “(3) Assisting institutions of higher education  
6 to establish new degree and certificate programs in  
7 artificial intelligence-related disciplines.

8 “(m) ADMINISTRATION.—

9 “(1) RESEARCH SECURITY.—The activities au-  
10 thORIZED under this section shall be applied in a  
11 manner consistent with subtitle D of title VI of the  
12 Research and Development, Competition, and Inno-  
13 vation Act (42 U.S.C. 19231 et seq.; enacted as part  
14 of division B of Public Law 117–167).

15 “(2) CYBERSECURITY.—The Secretary shall en-  
16 sure the integration of robust cybersecurity meas-  
17 ures into all artificial intelligence research-to-deploy-  
18 ment efforts authorized under this section to protect  
19 the integrity and confidentiality of collected and ana-  
20 lyzed data.

21 “(3) ETHICAL CONSIDERATIONS.—Taking into  
22 account the guidance issued pursuant to section  
23 10343(c) of the Research and Development, Com-  
24 petition, and Innovation Act (42 U.S.C. 19052(c)),  
25 the Secretary shall issue guidance governing the eth-

1 ical, safe, and responsible conduct of research activi-  
2 ties funded by the Department and performed at  
3 National Laboratories and user facilities.

4 “(n) DATA PRIVACY AND SHARING.—The Secretary  
5 shall review agency policies for data sharing with other  
6 public and private sector organizations and issue, as nec-  
7 essary, policies and principles that are consistent with the  
8 standards and guidelines submitted under section 22A of  
9 the National Institute of Standards and Technology Act  
10 (15 U.S.C. 278h-1(e)). In addition, the Secretary shall es-  
11 tablish a streamlined mechanism for approving research  
12 projects or partnerships that require sharing sensitive  
13 public or private data with the Department.

14 “(o) PARTNERSHIPS.—

15 “(1) FEDERAL PARTNERSHIPS.—The Secretary  
16 may request, accept, and provide funds from other  
17 Federal departments and agencies, State, United  
18 States territory, local, or Tribal government agen-  
19 cies, private sector for-profit entities, and nonprofit  
20 entities, to be available to the extent provided by ap-  
21 propriations Acts, to support a research project or  
22 partnership carried out under this section. The Sec-  
23 retary may not give any special consideration to any  
24 agency or entity in return for a donation.

1           “(2) PARTNERSHIPS WITH PRIVATE ENTI-  
2           TIES.—

3           “(A) IN GENERAL.—The Secretary shall  
4           seek to establish partnerships with private com-  
5           panies and nonprofit organizations in carrying  
6           out this section.

7           “(B) REQUIREMENT.—In carrying out  
8           subparagraph (A), the Secretary shall protect  
9           any information submitted to or shared by the  
10          Department consistent with applicable laws and  
11          regulations.

12          “(p) STAKEHOLDER ENGAGEMENT.—In carrying out  
13          the activities authorized in this section, the Secretary shall  
14          carry out the following:

15               “(1) Collaborate with a range of stakeholders,  
16               including small businesses, institutes of higher edu-  
17               cation, industry, and the National Laboratories.

18               “(2) Leverage the collective body of knowledge  
19               from existing artificial intelligence and machine  
20               learning research.

21               “(3) Engage with other Federal departments  
22               and agencies, research communities, and potential  
23               users of information produced under this section.

24          “(q) STRATEGIC PLAN.—

1           “(1) IN GENERAL.—In carrying out the pro-  
2           gram, the Secretary shall develop a strategic plan  
3           with specific short-term and long-term goals and re-  
4           source needs to advance applications in artificial in-  
5           telligence for science, energy, and national security  
6           to support the missions of the Department. The  
7           strategic plan shall be consistent with the following:

8                   “(A) The 2023 National Laboratory work-  
9                   shop report entitled ‘Advanced Research Direc-  
10                  tions on AI for Science, Energy, and Security’.

11                  “(B) The 2024 National Laboratory work-  
12                  shop report entitled ‘AI for Energy’.

13                  “(C) The strategic plan required under  
14                  section 5103 of division E of this Act (15  
15                  U.S.C. 9413).

16           “(2) REPORT TO CONGRESS.—Not later than  
17           one year after the date of the enactment of this sec-  
18           tion, the Director shall submit to the Committee on  
19           Science, Space, and Technology of the House of  
20           Representatives and the Committee of Energy and  
21           Natural Resources of the Senate the strategic plan  
22           required under paragraph (1), and shall notify such  
23           committees of any substantial updates to such plan  
24           in subsequent years.

25           “(r) DEFINITIONS.—In this section:

1           “(1) DEPARTMENT.—The term ‘Department’  
2 means the Department of Energy.

3           “(2) ELIGIBLE ENTITIES.—The term ‘eligible  
4 entities’ means any of the following:

5               “(A) An institution of higher education.

6               “(B) A National Laboratory.

7               “(C) A Federal research agency.

8               “(D) A State research agency.

9               “(E) A nonprofit research organization.

10              “(F) A private sector entity.

11              “(G) A consortium of two or more entities  
12 described in subparagraphs (A) through (F).

13           “(3) NATIONAL LABORATORY.—The term ‘Na-  
14 tional Laboratory’ has the meaning given such term  
15 in section 2 of the Energy Policy Act of 2005 (42  
16 U.S.C. 15801).

17           “(4) NONPROFIT ORGANIZATION.—The term  
18 ‘nonprofit organization’ has the meaning given such  
19 term in section 201 of title 35, United States Code.

20           “(5) SECRETARY.—The term ‘Secretary’ means  
21 the Secretary of Energy.

22           “(6) TESTBED.—The term ‘testbed’ means any  
23 platform, facility, or environment that enables the  
24 testing and evaluation of scientific theories and new  
25 technologies, including hardware, software, or field

1 environments in which structured frameworks can be  
2 implemented to conduct tests to assess the perform-  
3 ance, reliability, safety, and security of a wide range  
4 of items, including prototypes, systems, applications,  
5 artificial intelligence systems, instruments, computa-  
6 tional tools, devices, and other technological innova-  
7 tions.

8 “(s) AUTHORIZATION OF APPROPRIATIONS.—There  
9 are authorized to be appropriated to the Secretary to carry  
10 out this section \$300,000,000 for each of fiscal years 2027  
11 through 2032.

12 **“SEC. 5502. ENSURING ENERGY SECURITY FOR DATA CEN-**  
13 **TERS AND COMPUTING RESOURCES.**

14 “Not later than one year after the date of the enact-  
15 ment of this section, the Secretary of Energy shall submit  
16 to Congress a report that includes the following:

17 “(1) An assessment of the following:

18 “(A) The growth of computing data cen-  
19 ters and advanced computing electrical power  
20 load in the United States.

21 “(B) Potential risks of growth in com-  
22 puting centers or growth in the required elec-  
23 trical power to United States energy security  
24 and national security.

1           “(C) The extent to which emerging tech-  
2 nologies, such as artificial intelligence and ad-  
3 vanced computing, may impact hardware and  
4 software systems used at data and computing  
5 centers.

6           “(D) Cost, performance, reliability, avail-  
7 ability, space requirements, emissions, and sup-  
8 ply chain issues for current technologies, includ-  
9 ing renewable diesel, natural gas, renewable  
10 natural gas, fuel cells, nuclear energy, battery  
11 storage, enhanced geothermal, long-duration en-  
12 ergy storage, and other potentially viable tech-  
13 nologies available to support regional data cen-  
14 ter expansion and for backup power.

15           “(2) Recommendations for the following:

16           “(A) Resources and capabilities that the  
17 Department of Energy may provide to promote  
18 access to energy resources by data centers, ad-  
19 vanced computing hardware and algorithms,  
20 and artificial intelligence systems (as defined in  
21 section 7223 of the Advancing American AI Act  
22 (40 U.S.C. 11301 note; Public Law 117–263)).

23           “(B) Policy changes to ensure domestic de-  
24 ployment of data center and advanced com-

1           puting resources to prevent offshoring of  
2           United States data and resources.

3           “(C) Improving the energy efficiency of  
4           data centers, advanced computing hardware  
5           and algorithms, and artificial intelligence sys-  
6           tems.”.

7           (b) CLERICAL AMENDMENTS.—The tables of con-  
8           tents in section 2(b) and title LV of the William M. (Mac)  
9           Thornberry National Defense Authorization Act for Fiscal  
10          Year 2021 are amended by inserting after the items relat-  
11          ing to section 5501 the following new items:

          “Sec. 5502. Ensuring energy security for data centers and computing re-  
          sources.”.

12       **TITLE III—MODERNIZING FED-**  
13       **ERAL AI GOVERNANCE, PRO-**  
14       **CUREMENT, AND SECURITY**  
15       **Subtitle A—Federal Standards for**  
16       **Artificial Intelligence**

17       **SEC. 301. FEDERAL STANDARDS FOR ARTIFICIAL INTEL-**  
18       **LIGENCE.**

19           (a) IN GENERAL.—Title LIII of division E of the  
20          William M. (Mac) Thornberry National Defense Author-  
21          ization Act for Fiscal Year 2021 (Public Law 116–283;  
22          134 Stat. 4523) is amended by adding at the end the fol-  
23          lowing new section:

1 **“SEC. 5305. FEDERAL STANDARDS FOR ARTIFICIAL INTEL-**  
2 **LIGENCE.**

3 “(a) IN GENERAL.—The Director of the National In-  
4 stitute of Standards and Technology (in this section re-  
5 ferred to as the ‘Director’) shall—

6 “(1) develop standards and guidelines, includ-  
7 ing minimum requirements, for artificial intelligence  
8 systems used or operated by an agency or by a con-  
9 tractor of an agency or other organization on behalf  
10 of an agency, other than national security systems;

11 “(2) develop standards and guidelines, includ-  
12 ing minimum requirements, for managing risks asso-  
13 ciated with artificial intelligence systems for all  
14 agency operations and assets, but such standards  
15 and guidelines shall not apply to national security  
16 systems;

17 “(3) develop standards and guidelines, includ-  
18 ing minimum requirements, for authenticating,  
19 tracking provenance, and labeling synthetic content  
20 generated by an agency or by a contractor of an  
21 agency or other organization on behalf of an agency,  
22 other than national security systems; and

23 “(4) conduct research and development pursu-  
24 ant to section 5301 to inform the development of  
25 standards and guidelines for activities described in  
26 this section.

1       “(b) STANDARDS AND GUIDELINES.—In developing  
2 standards and guidelines required by subsection (a), the  
3 Director shall—

4           “(1) provide standards and guidelines, prac-  
5 tices, profiles, and tools consistent with the frame-  
6 work under subsection (c) of section 22A of the Na-  
7 tional Institute of Standards and Technology Act  
8 (15 U.S.C. 278h–1), and information on how agen-  
9 cies can leverage such framework to reduce risks  
10 caused by agency implementation in the develop-  
11 ment, procurement, and use of artificial intelligence  
12 systems;

13           “(2) provide standards and guidelines that—

14           “(A) are consistent with Circular A–119 of  
15 the Office of Management and Budget; and

16           “(B) enable conformity assessment;

17           “(3) recommend training on standards and  
18 guidelines for each agency responsible for procuring  
19 artificial intelligence;

20           “(4) develop and periodically revise performance  
21 indicators and measures for agency artificial intel-  
22 ligence related standards and guidelines;

23           “(5) provide standards and guidelines, including  
24 minimum requirements, for developing profiles for

1 agency use of artificial intelligence consistent with  
2 such framework;

3 “(6) develop profiles for framework use for an  
4 entity that is a small business concern (as such term  
5 is defined in section 3 of the Small Business Act (15  
6 U.S.C. 632));

7 “(7) evaluate artificial intelligence policies and  
8 practices developed for national security systems to  
9 assess potential application by agencies to strength-  
10 en risk management of artificial intelligence systems;  
11 and

12 “(8) periodically assess the effectiveness of  
13 standards and guidelines developed under this sec-  
14 tion and undertake revisions as appropriate.

15 “(c) READINESS.—For standards and guidelines de-  
16 veloped pursuant to subsection (a) that are deemed by the  
17 Director to be at a readiness level sufficient for standard-  
18 ization, the Director shall—

19 “(1) submit such standards and guidelines to  
20 the Secretary of Commerce for promulgation under  
21 section 11331 of title 40, United States Code;

22 “(2) where practicable and appropriate, provide  
23 technical review and assistance to agencies; and

1           “(3) evaluate the effectiveness and sufficiency  
2 of, and challenges to, agency implementation of such  
3 standards and guidelines.

4           “(d) TESTING AND EVALUATION OF ARTIFICIAL IN-  
5 TELLIGENCE ACQUISITIONS.—

6           “(1) STUDY.—Subject to the availability of ap-  
7 propriations, the Director shall complete a study to  
8 review the existing and forthcoming voluntary tech-  
9 nical standards for the testing, evaluation,  
10 verification, and validation of artificial intelligence  
11 acquisitions.

12           “(2) TESTING AND EVALUATION STANDARDS.—  
13 Not later than 90 days after the date of the comple-  
14 tion of the study required by paragraph (1), the Di-  
15 rector shall—

16           “(A) develop standards and guidelines for  
17 the testing, evaluation, verification, and valida-  
18 tion of artificial intelligence acquisitions pursu-  
19 ant to this section;

20           “(B) convene relevant stakeholders to fa-  
21 cilitate such development;

22           “(C) continuously update such standards  
23 and guidelines; and

24           “(D) review and make recommendations to  
25 the head of each agency on risk management

1 policies and principles for relevant artificial in-  
2 telligence acquisitions.

3 “(e) DEFINITIONS.—In this section:

4 “(1) AGENCY.—The term ‘agency’ means any  
5 department, independent establishment, Government  
6 corporation, or other agency of the executive branch  
7 of the Federal Government.

8 “(2) NATIONAL SECURITY SYSTEM.—The term  
9 ‘national security system’ has the meaning given  
10 such term in section 3552 of title 44, United States  
11 Code.

12 “(3) PROFILE.—The term ‘profile’ means an  
13 implementation of the artificial intelligence risk  
14 management functions, categories, and subcategories  
15 for a specific setting or application based on the re-  
16 quirements, risk tolerance, and resources of the user  
17 of the framework at issue.

18 “(4) SYNTHETIC CONTENT.—The term ‘syn-  
19 thetic content’ means information, such as images,  
20 videos, audio clips, and text, that has been signifi-  
21 cantly modified or generated by algorithms, includ-  
22 ing by artificial intelligence.”.

23 (b) CLERICAL AMENDMENTS.—The tables of con-  
24 tents in section 2(b) and title LIII of the William M.  
25 (Mac) Thornberry National Defense Authorization Act for

1 Fiscal Year 2021 are amended by inserting after the items  
2 relating to section 5304, as added by section 101(b), the  
3 following new items:

“Sec. 5305. Federal standards for artificial intelligence.”.

4           **Subtitle B—AI Leadership to**  
5           **Enable Accountable Deployment**

6           **SEC. 311. DEFINITIONS.**

7           In this subtitle:

8                   (1) AGENCY.—The term “agency” has the  
9                   meaning given the term in section 3502 of title 44,  
10                   United States Code.

11                   (2) ARTIFICIAL INTELLIGENCE.—The term “ar-  
12                   tificial intelligence” has the meaning given such  
13                   term in section 5002 of the National Artificial Intel-  
14                   ligence Initiative Act of 2020 (15 U.S.C. 9401).

15                   (3) ARTIFICIAL INTELLIGENCE SYSTEM.—The  
16                   term “artificial intelligence system”—

17                           (A) means any data system, software, ap-  
18                           plication, tool, or utility that operates in whole  
19                           or in part using dynamic or static machine  
20                           learning algorithms or other forms of artificial  
21                           intelligence, whether—

22                                   (i) the data system, software, applica-  
23                                   tion, tool, or utility is established primarily  
24                                   for the purpose of researching, developing,

1 or implementing artificial intelligence tech-  
2 nology; or

3 (ii) artificial intelligence capability is  
4 integrated into another system or agency  
5 business process, operational activity, or  
6 technology system; and

7 (B) does not include any common commer-  
8 cial product within which artificial intelligence  
9 is embedded, such as a word processor or map  
10 navigation system.

11 (4) CHIEF ARTIFICIAL INTELLIGENCE OFFI-  
12 CER.—The term “Chief Artificial Intelligence Offi-  
13 cer” means an official designated by the head of an  
14 agency pursuant to section 313(b)(1).

15 (5) COUNCIL.—The term “Council” means the  
16 Chief Artificial Intelligence Officers Council estab-  
17 lished under section 312(a).

18 (6) DIRECTOR.—The term “Director” means  
19 the Director of the Office of Management and Budg-  
20 et.

21 (7) RELEVANT CONGRESSIONAL COMMIT-  
22 TEES.—The term “relevant congressional commit-  
23 tees” means the Committee on Homeland Security  
24 and Governmental Affairs of the Senate and the

1 Committee on Oversight and Government Reform of  
2 the House of Representatives.

3 **SEC. 312. CHIEF ARTIFICIAL INTELLIGENCE OFFICERS**  
4 **COUNCIL.**

5 (a) ESTABLISHMENT.—Not later than 90 days after  
6 the date of the enactment of this Act, the Director shall  
7 establish a Chief Artificial Intelligence Officers Council.

8 (b) DUTIES.—The Council shall—

9 (1) promote artificial intelligence innovation  
10 and responsible design, development, and applica-  
11 tion;

12 (2) oversee compliance with Governmentwide  
13 requirements, including existing requirements for  
14 agencies to inventory and publish use cases of artifi-  
15 cial intelligence;

16 (3) develop recommendations for, and advise  
17 agencies on, best practices for the design, acquisi-  
18 tion, development, modernization, use, operation,  
19 sharing, risk management, auditing, and perform-  
20 ance of artificial intelligence technologies while en-  
21 suring privacy, security, and the protection of civil  
22 rights and civil liberties;

23 (4) share experiences, ideas, and promising  
24 practices, including work process redesign and the  
25 development of performance measures to optimize

1 Federal Government use of and investments in arti-  
2 ficial intelligence;

3 (5) in coordination with the Director of the Of-  
4 fice of Personnel Management, assess and monitor  
5 the hiring, training, classification, and professional  
6 development needs of the Federal workforce relating  
7 to artificial intelligence;

8 (6) examine and track the costs and benefits of  
9 artificial intelligence use in the Federal Government,  
10 and make recommendations for any limits that  
11 should be placed on the acquisition, development,  
12 and use of artificial intelligence and the capabilities  
13 of artificial intelligence;

14 (7) help improve the abilities of agencies to un-  
15 derstand artificial intelligence and intervene in cri-  
16 sis;

17 (8) review and analyze already deployed artifi-  
18 cial intelligence systems within the Federal Govern-  
19 ment for potential harm; and

20 (9) assist the Director, as necessary, in—

21 (A) identifying, developing, coordinating,  
22 and overseeing multi-agency projects and other  
23 initiatives to improve Government performance;

- 1 (B) monitoring and managing risks relat-  
2 ing to developing, obtaining, or using artificial  
3 intelligence, including by—
- 4 (i) promoting the development and  
5 use of efficient, common, and shared ap-  
6 proaches to key processes that improve the  
7 delivery of services for the public;
- 8 (ii) soliciting and providing perspec-  
9 tives on matters of concern to the Council,  
10 as appropriate, from and to—
- 11 (I) the Chief Financial Officers  
12 Council;
- 13 (II) the Chief Human Capital Of-  
14 ficers Council;
- 15 (III) the Chief Acquisition Offi-  
16 cers Council;
- 17 (IV) the Chief Information Offi-  
18 cers Council;
- 19 (V) the Chief Data Officers  
20 Council;
- 21 (VI) other interagency councils;
- 22 (VII) other key groups of the  
23 Federal Government;
- 24 (VIII) industry;
- 25 (IX) academia;

1 (X) State, local, Tribal, terri-  
2 torial, and international governments;  
3 and

4 (XI) other individuals and enti-  
5 ties, as determined necessary by the  
6 Director;

7 (iii) creating a framework for how  
8 agencies can reduce risk in the design, de-  
9 velopment, and use of artificial intelligence  
10 systems; and

11 (iv) implementing measurements and  
12 producing specific guidance on use cases  
13 for which the Federal Government should  
14 not be developing, procuring, or using arti-  
15 ficial intelligence systems;

16 (C) ensuring artificial intelligence systems  
17 used and procured by agencies are and have  
18 been responsibly developed and evaluated such  
19 that the artificial intelligence systems are trans-  
20 parent and secure, do not infringe on privacy,  
21 and promote civil interests;

22 (D) continually monitoring the capabilities  
23 of artificial intelligence systems used and pro-  
24 cured by the Federal Government; and

1 (E) ensuring accountability for the use and  
2 procurement of artificial intelligence systems  
3 that result in flawed, inaccurate, or biased deci-  
4 sions that would impact individuals.

5 (c) MEMBERSHIP OF CAIOC.—

6 (1) CHAIR.—The Director shall serve as the  
7 chair of the Council.

8 (2) COCHAIR.—The cochair of the Council shall  
9 be—

10 (A) nominated by a majority of the mem-  
11 bers of the Council; and

12 (B) designated as the cochair of the Coun-  
13 cil by the Director.

14 (3) MEMBERS.—Members of the Council shall  
15 include—

16 (A) the Chief Artificial Intelligence Officer  
17 of each agency described in section 901(b) of  
18 title 31, United States Code;

19 (B) a representative from an agency  
20 with—

21 (i) advisory experience in scientific  
22 and technological issues that require atten-  
23 tion at the highest level of Government;  
24 and

1 (ii) a role working with agencies to  
2 create strategies, plans, policies and pro-  
3 grams for science and technology, includ-  
4 ing artificial intelligence; and

5 (C) other members, as determined nec-  
6 essary by the Director.

7 (4) STANDING COMMITTEES; WORKING  
8 GROUPS.—The Council shall have the authority to  
9 establish standing committees and working groups  
10 as necessary to consider items of concern to the  
11 Council.

12 (d) ADMINISTRATIVE SUPPORT.—The Administrator  
13 of General Services shall provide administrative support  
14 for the Council.

15 **SEC. 313. AGENCY ARTIFICIAL INTELLIGENCE OFFICERS.**

16 (a) DUTIES OF AGENCIES.—The head of each agency  
17 shall ensure the responsible research, development, acqui-  
18 sition, application, governance, and use of artificial intel-  
19 ligence by the agency that is consistent with democratic  
20 values, including—

- 21 (1) privacy;
- 22 (2) civil rights and civil liberties;
- 23 (3) information security;
- 24 (4) nondiscrimination;
- 25 (5) transparency; and

1 (6) trustworthiness.

2 (b) CHIEF ARTIFICIAL INTELLIGENCE OFFICER.—

3 (1) IN GENERAL.—Not later than 45 days after  
4 the date of the enactment of this Act, the head of  
5 each agency shall designate a Chief Artificial Intel-  
6 ligence Officer with responsibility for—

7 (A) promoting artificial intelligence innova-  
8 tion and use within the agency to further the  
9 agency's effectiveness and efficiency;

10 (B) providing input on the decision proc-  
11 esses for annual and multi-year planning, pro-  
12 gramming, budgeting, and execution decisions,  
13 related reporting requirements, and reports re-  
14 lating to artificial intelligence of the agency;

15 (C) participating in internal control proc-  
16 esses or entities convened for the purpose of re-  
17 viewing artificial intelligence acquisitions  
18 throughout the acquisition life cycle;

19 (D) producing a risk management plan for  
20 agency-specific use cases of artificial intel-  
21 ligence, including—

22 (i) a procedure for classifying risk lev-  
23 els in agency use of artificial intelligence;  
24 and

1 (ii) specific guidance on use cases for  
2 which the agency should not developing,  
3 procuring, or using artificial intelligence  
4 systems;

5 (E) in coordination with other responsible  
6 officials of the agency—

7 (i) assessing and addressing agency  
8 personnel requirements and professional  
9 development requirements relating to arti-  
10 ficial intelligence;

11 (ii) developing and overseeing agency  
12 processes regarding the design, acquisition,  
13 development, modernization, use, data  
14 management, operation, sharing, and au-  
15 diting of artificial intelligence systems by  
16 the agency, including existing requirements  
17 to inventory and publish agency use cases;

18 (iii) ensuring artificial intelligence  
19 policies of the agency comply with the Con-  
20 stitution of the United States and Govern-  
21 mentwide requirements;

22 (iv) ensuring all artificial intelligence  
23 systems used and procured by the agency  
24 are and have been responsibly developed  
25 and evaluated such that the systems are

1 transparent and secure, do not infringe on  
2 privacy, and promote civil interests;

3 (v) continually monitoring the capa-  
4 bilities and impacts of artificial intelligence  
5 systems used and procured by the agency;  
6 and

7 (vi) ensuring accountability for the  
8 use and procurement of artificial intel-  
9 ligence systems that result in flawed, inac-  
10 curate, or biased decisions that would im-  
11 pact individuals;

12 (F) helping to improve the ability of the  
13 agency to understand artificial intelligence and  
14 to intervene in crisis;

15 (G) reviewing and analyzing already de-  
16 ployed artificial intelligence systems of the  
17 agency for potential harm; and

18 (H) performing other functions relating to  
19 artificial intelligence, as determined by the Di-  
20 rector or the head of the agency.

21 (2) STRUCTURE.—The Director shall issue  
22 guidance on the appropriate reporting structure,  
23 qualifications, and seniority level for the role of a  
24 Chief Artificial Intelligence Officer.

1           (3) SENIORITY.—With respect to the Chief Ar-  
2           tificial Intelligence Officer of any agency described  
3           in section 901(b) of title 31, United States Code, the  
4           Chief Artificial Intelligence Officer shall be an execu-  
5           tive with a position classified above GS–15 of the  
6           General Schedule or the equivalent.

7           (4) ROLES.—The head of each agency shall en-  
8           sure that the Chief Artificial Intelligence Officer of  
9           the agency has a significant role in—

10                   (A) the decision processes for all annual  
11                   and multi-year planning, programming, budg-  
12                   eting, and execution decisions, related reporting  
13                   requirements, and reports relating to artificial  
14                   intelligence of the agency; and

15                   (B) the management, governance, acquisi-  
16                   tion, and oversight processes of the agency re-  
17                   lating to artificial intelligence.

18           (5) FULL-TIME EMPLOYEE.—

19                   (A) IN GENERAL.—To the extent prac-  
20                   ticable, each Chief Artificial Intelligence Officer  
21                   designated under paragraph (1) shall be a full-  
22                   time employee of the agency on the date of the  
23                   designation.

24                   (B) JUSTIFICATION.—If the head of an  
25                   agency designates a Chief Artificial Intelligence

1           Officer of the agency who is not a full-time em-  
2           ployee on the date of the designation, the head  
3           of the agency shall provide the Comptroller  
4           General of the United States a justification for  
5           the designation of an individual who is not a  
6           full-time employee, such as a lack of qualified  
7           personnel.

8                   (C) INCLUSION IN REPORT.—The Comp-  
9           troller General of the United States shall in-  
10          clude each justification provided by the head of  
11          an agency under subparagraph (B) in the re-  
12          port required under section 316(a).

13          (c) INFORMING CONGRESS.—Not later than 60 days  
14          after the date of the enactment of this Act, the head of  
15          each agency shall—

16                   (1) inform the relevant congressional commit-  
17          tees of the appointment of a Chief Artificial Intel-  
18          ligence Officer pursuant to subsection (b); and

19                   (2) if relevant, provide to the relevant congres-  
20          sional committees a full description of any authori-  
21          ties and responsibilities of the individual serving as  
22          the Chief Artificial Intelligence Officer that are per-  
23          formed in addition to the authorities and responsibil-  
24          ities of the individual in the role of the Chief Artifi-  
25          cial Intelligence Officer.

1 **SEC. 314. AGENCY COORDINATION ON ARTIFICIAL INTEL-**  
2 **LIGENCE.**

3 (a) ESTABLISHMENT.—Not later than 120 days after  
4 the date of the enactment of this Act, the Director shall  
5 issue guidance directing the head of each agency described  
6 in section 901(b) of title 31, United States Code, to estab-  
7 lish within the agency an Artificial Intelligence Coordina-  
8 tion Board to—

9 (1) coordinate artificial intelligence issues of the  
10 agency; and

11 (2) to the extent applicable to the agency, pub-  
12 lish a statement of principles and goals relating to  
13 artificial intelligence.

14 (b) CONTENTS.—The guidance issued under sub-  
15 section (a) shall—

16 (1) define the structure and activities of Artifi-  
17 cial Intelligence Coordination Boards of agencies;  
18 and

19 (2) ensure that the membership of the Artificial  
20 Intelligence Coordination Board of an agency may  
21 include, to the extent applicable to the agency—

22 (A) the deputy head of the agency;

23 (B) the Chief Artificial Intelligence Officer  
24 of the agency, who shall serve as the chair of  
25 the Artificial Intelligence Coordination Board of  
26 the agency;

1 (C) the chief information officer of the  
2 agency;

3 (D) the chief acquisition officer of the  
4 agency;

5 (E) the senior procurement executive of  
6 the agency;

7 (F) the chief data officer of the agency;

8 (G) the chief human capital officer of the  
9 agency;

10 (H) the chief financial officer of the agen-  
11 cy;

12 (I) the senior agency official for privacy of  
13 the agency;

14 (J) the senior agency official for civil  
15 rights and civil liberties of the agency; and

16 (K) other individuals, as determined by the  
17 Director.

18 (c) STRATEGY.—

19 (1) IN GENERAL.—The head of each agency  
20 shall establish an artificial intelligence strategy for  
21 the responsible and trustworthy adoption of artificial  
22 intelligence by the agency to better achieve the mis-  
23 sion of the agency to serve the people of the United  
24 States.

1           (2) CONTENTS.—The strategy required under  
2 paragraph (1) shall include the following:

3           (A) Defined roles and responsibilities for  
4 the use and oversight of artificial intelligence by  
5 the agency, including oversight of compliance  
6 with relevant laws, regulations, standards, and  
7 guidance.

8           (B) Defined values, ethics, and principles  
9 to foster public trust and responsible use of ar-  
10 tificial intelligence by the agency.

11           (C) The standards, regulations, invest-  
12 ments, practices, and other items the agency  
13 will use to improve trust and safety and ensure  
14 that artificial intelligence systems are designed,  
15 developed, and deployed in a manner that pro-  
16 tects the rights and safety of individuals.

17           (D) How the agency will oversee artificial  
18 intelligence systems and applications to identify  
19 and mitigate risk and prevent harm, including  
20 with respect to privacy, civil rights, civil lib-  
21 erties, and information security.

22           (E) The considerations and safeguards the  
23 agency will use to protect the rights and safety  
24 of the public with respect to artificial intel-

1           ligence, including mitigation of algorithmic dis-  
2           crimination.

3           (F) The domains or areas in which the  
4           agency uses or anticipates using artificial intel-  
5           ligence.

6           (G) The steps the agency will take to  
7           strengthen workforce knowledge to maximize  
8           the value artificial intelligence can bring to mis-  
9           sion outcomes while mitigating any associated  
10          risks.

11          (H) How and under what conditions the  
12          agency can use artificial intelligence to improve  
13          the interactions of the agency with the public  
14          and the fulfillment of the mission of the agency,  
15          while protecting against harmful impacts on  
16          agency employees or the public.

17          (I) How the agency will coordinate and  
18          work across components, offices, and programs  
19          of the agency on artificial intelligence-related  
20          matters.

21          (J) How the agency will engage in inter-  
22          agency governance and coordination with re-  
23          spect to artificial intelligence, including to lever-  
24          age shared resources, expertise, and lessons  
25          learned to better leverage artificial intelligence

1 to improve Federal Government operations and  
2 mitigate the risks of artificial intelligence.

3 (K) How the agency will promote the use  
4 and availability of data to support the artificial  
5 intelligence efforts of the agency in accordance  
6 with statutory, regulatory, and policy require-  
7 ments.

8 (L) How the agency will work with the pri-  
9 vate sector to ensure that procured artificial in-  
10 telligence systems or capabilities include protec-  
11 tions to safeguard the rights and safety of indi-  
12 viduals and to secure Federal Government data  
13 and other information.

14 (M) An outline of specific actions to imple-  
15 ment the strategy of the agency and desired  
16 outcomes.

17 **SEC. 315. GAO REPORTS.**

18 (a) IN GENERAL.—Not later than two years after the  
19 date of the enactment of this Act, the Comptroller General  
20 of the United States shall submit to the relevant congres-  
21 sional committees a report on—

22 (1) the implementation and effectiveness of Ar-  
23 tificial Intelligence Coordination Boards established  
24 pursuant to guidance issued under section 314(a);

1           (2) an assessment of agency implementation  
2           and the effectiveness of Chief Artificial Intelligence  
3           Officers;

4           (3) recommendations for improving the imple-  
5           mentation and effectiveness of Artificial Intelligence  
6           Coordination Boards established pursuant to guid-  
7           ance issued under section 314(a) and Chief Artificial  
8           Intelligence Officers;

9           (4) an analysis by the Comptroller General of  
10          the United States with respect to the costs and ben-  
11          efits of—

12                   (A) the Federal implementation of artifi-  
13                   cial intelligence; and

14                   (B) the activities of the Artificial Intel-  
15                   ligence Coordination Boards established pursu-  
16                   ant to guidance issued under section 314(a);

17          (5) an assessment of the extent to which select  
18          agencies appropriately consider the costs and bene-  
19          fits of the design, development, deployment, and  
20          continuous monitoring of artificial intelligence;

21          (6) an assessment of jobs that could be at risk  
22          of dislocation and opportunities of other jobs with  
23          the Federal Government and the economy of the  
24          United States as a result of technological develop-  
25          ments with respect to artificial intelligence, including

1 potential effects on blue collar and white collar occu-  
2 pational categories;

3 (7) an inventory of artificial intelligence use  
4 cases of each agency, including an assessment of  
5 how each agency protects privacy and mitigates bias  
6 in the use by the agency of artificial intelligence; and

7 (8) other relevant matters, as determined by  
8 the Comptroller General of the United States.

9 (b) **ADDITIONAL REPORT.**—Not later than two years  
10 after the date of the enactment of this Act, the Comp-  
11 troller General of the United States shall submit to the  
12 relevant congressional committees a report on the impact  
13 of biased datasets on Federal use and implementation of  
14 artificial intelligence systems.

15 **SEC. 316. POST-ENACTMENT GUIDANCE FROM THE DIREC-**  
16 **TOR.**

17 Not later than five years after the date of the enact-  
18 ment of this Act, the Director shall—

19 (1) consider technological and other develop-  
20 ments, current and future requirements, and options  
21 for artificial intelligence governance; and

22 (2) issue a directive to agencies—

23 (A) updating leadership roles, organiza-  
24 tional structures, and other matters relating to

1 artificial intelligence, as determined relevant by  
2 the Director; and

3 (B) that includes an action plan and  
4 timeline for implementation.

5 **SEC. 317. SUNSET.**

6 Beginning on the date that is 90 days after the date  
7 of issuance of the directive under section 316, this subtitle  
8 shall have no force or effect.

9 **Subtitle C—AI Incident Reporting**  
10 **and Security Enhancement**

11 **SEC. 321. ACTIVITIES TO SUPPORT VOLUNTARY VULNER-**  
12 **ABILITY AND INCIDENT TRACKING ASSOCI-**  
13 **ATED WITH ARTIFICIAL INTELLIGENCE.**

14 (a) UPDATE TO NATIONAL VULNERABILITY DATA-  
15 BASE.—The Director of the National Institute of Stand-  
16 ards and Technology, in coordination with industry stake-  
17 holders, standards development organizations, and appro-  
18 priate Federal agencies, as appropriate, shall carry out the  
19 following:

20 (1) Establish or identify common definitions  
21 and any characteristics of artificial intelligence secu-  
22 rity vulnerabilities that make utilization of the Na-  
23 tional Vulnerability Database inappropriate for the  
24 management of such vulnerabilities, and develop

1 processes and procedures for vulnerability manage-  
2 ment of such vulnerabilities.

3 (2) Support the development of standards and  
4 guidance for technical vulnerability management  
5 processes related to artificial intelligence.

6 (3) Consistent with paragraphs (1) and (2), as  
7 appropriate, initiate a process to update the Insti-  
8 tute's processes and procedures associated with the  
9 National Vulnerability Database to ensure such  
10 Database and associated vulnerability management  
11 processes incorporate artificial intelligence security  
12 vulnerabilities to the greatest extent practicable.

13 (b) ASSESSING VOLUNTARY TRACKING OF SUBSTAN-  
14 TIAL ARTIFICIAL INTELLIGENCE SECURITY AND SAFETY  
15 INCIDENTS.—

16 (1) IN GENERAL.—The Director of the National  
17 Institute of Standards and Technology, in consulta-  
18 tion with the Director of the Cybersecurity and In-  
19 frastructure Security Agency of the Department of  
20 Homeland Security, shall convene a multi-stake-  
21 holder process to consider the development of a  
22 process relating to the voluntary collection, report-  
23 ing, and tracking of substantial artificial intelligence  
24 security incidents and substantial artificial intel-  
25 ligence safety incidents.

1           (2) ACTIVITIES.—In carrying out paragraph  
2           (1), the Director of the National Institute of Stand-  
3           ards and Technology shall convene appropriate rep-  
4           resentatives of industry, academia, nonprofit organi-  
5           zations, standards development organizations, civil  
6           society groups, Sector Risk Management Agencies,  
7           and appropriate Federal departments and agencies  
8           to carry out the following:

9           (A) Establish common definitions and  
10           characterizations for relevant aspects of sub-  
11           stantial artificial intelligence security incidents  
12           and substantial artificial intelligence safety inci-  
13           dents, which may include the following:

14                   (i) Classifications that sufficiently dif-  
15                   ferentiate between the following:

16                           (I) Artificial intelligence security  
17                           incidents.

18                           (II) Artificial intelligence safety  
19                           incidents.

20                   (ii) Taxonomies to classify incidents  
21                   referred to in clause (i) based on relevant  
22                   characteristics, impacts, or other appro-  
23                   priate criteria.

24           (B) Assess the usefulness and cost-effec-  
25           tiveness of an effort to voluntarily track sub-

1           substantial artificial intelligence security incidents  
2           and substantial artificial intelligence safety inci-  
3           dents.

4           (C) Identify and provide guidelines, best  
5           practices, methodologies, procedures, and proc-  
6           esses for tracking and reporting substantial ar-  
7           tificial intelligence security incidents and sub-  
8           stantial artificial intelligence safety incidents  
9           across different sectors and use cases.

10          (D) Support the development of standard-  
11          ized reporting and documentation mechanisms,  
12          including automated mechanisms, that would  
13          help provide information, including public infor-  
14          mation, regarding substantial artificial intel-  
15          ligence security incidents and substantial artifi-  
16          cial intelligence safety incidents.

17          (E) Support the development of norms for  
18          reporting of substantial artificial intelligence se-  
19          curity incidents and substantial artificial intel-  
20          ligence safety incidents, taking into account  
21          when it is appropriate to publicly disclose such  
22          incidents.

23          (3) REPORT.—Not later than three years after  
24          the date of the enactment of this Act, the Director  
25          of the National Institute of Standards and Tech-

1 nology shall submit to Congress a report on a proc-  
2 ess relating to the voluntary collection, reporting,  
3 and tracking of substantial artificial intelligence se-  
4 curity incidents and substantial artificial intelligence  
5 safety incidents under paragraph (1). Such report  
6 shall include the following:

7 (A) Findings from the multi-stakeholder  
8 process referred to in such paragraph.

9 (B) An assessment of and recommenda-  
10 tions for establishing reporting and collection  
11 mechanisms by which industry, academia, non-  
12 profit organizations, standards development or-  
13 ganizations, civil society groups, and appro-  
14 priate public sector entities may voluntarily  
15 share standardized information regarding sub-  
16 stantial artificial intelligence security incidents  
17 and substantial artificial intelligence safety inci-  
18 dents.

19 (c) LIMITATION.—Nothing in this section provides  
20 the Director of the National Institute of Standards and  
21 Technology with any enforcement authority that was not  
22 in effect on the day before the date of the enactment of  
23 this section.

24 (d) DEFINITIONS.—In this section:

1           (1) ARTIFICIAL INTELLIGENCE.—The term “ar-  
2           tificial intelligence” has the meaning given such  
3           term in section 5002 of the National Artificial Intel-  
4           ligence Initiative Act of 2020 (15 U.S.C. 9401).

5           (2) ARTIFICIAL INTELLIGENCE SECURITY VUL-  
6           NERABILITY.—The term “artificial intelligence secu-  
7           rity vulnerability” means a weakness in an artificial  
8           intelligence system, system security procedures, in-  
9           ternal controls, or implementation that could be ex-  
10          ploited or triggered by a threat source.

11          (3) ARTIFICIAL INTELLIGENCE SYSTEM.—The  
12          term “artificial intelligence system”—

13                (A) means any data system, software, ap-  
14                plication, tool, or utility that operates in whole  
15                or in part using dynamic or static machine  
16                learning algorithms or other forms of artificial  
17                intelligence, whether—

18                       (i) the data system, software, applica-  
19                       tion, tool, or utility is established primarily  
20                       for the purpose of researching, developing,  
21                       or implementing artificial intelligence tech-  
22                       nology; or

23                       (ii) artificial intelligence capability is  
24                       integrated into another system or agency

1           business process, operational activity, or  
2           technology system; and

3           (B) does not include any common commer-  
4           cial product within which artificial intelligence  
5           is embedded, such as a word processor or map  
6           navigation system.

7           (4) NONPROFIT ORGANIZATION.—The term  
8           “nonprofit organization” has the meaning given  
9           such term in section 201 of title 35, United States  
10          Code.

11          (5) SECTOR RISK MANAGEMENT AGENCY.—The  
12          term “Sector Risk Management Agency” has the  
13          meaning given such term in section 2200 of the  
14          Homeland Security Act of 2002 (6 U.S.C. 650).

15          (6) THREAT SOURCE.—The term “threat  
16          source” means any of the following:

17                  (A) An intent and method targeted at the  
18                  intentional exploitation of a vulnerability.

19                  (B) A situation and method that may acci-  
20                  dentally trigger a vulnerability.

1 **TITLE IV—PROTECTING WORK-**  
2 **ERS AND EMPOWERING**  
3 **SMALL BUSINESSES**

4 **Subtitle A—AI Workforce Research**  
5 **Hub**

6 **SEC. 401. AI WORKFORCE RESEARCH HUB.**

7 (a) IN GENERAL.—There is established in the De-  
8 partment of Labor the AI Workforce Research Hub (in  
9 this section referred to as the “Hub”).

10 (b) DUTIES.—The Secretary of Labor, acting  
11 through the Hub and in collaboration with the Commis-  
12 sioner of the Bureau of Labor Statistics, the Director of  
13 the U.S. Census Bureau, and the Director of the Bureau  
14 of Economic Analysis, shall carry out the following:

15 (1) Evaluate the impact of AI on the labor mar-  
16 ket and the experience of United States workers.

17 (2) Produce recurring evaluations of such im-  
18 pact.

19 (3) Conduct scenario planning for a range of  
20 potential levels of such impact.

21 (4) Identify insights to inform workforce and  
22 education policy with respect to such impact.

23 (c) AI DEFINED.—In this section, the term “AI” has  
24 the meaning given the term “artificial intelligence” in sec-

1 tion 5002 of the National Artificial Intelligence Initiative  
2 Act of 2020 (15 U.S.C. 9401).

3 **Subtitle B—Small Business Artifi-**  
4 **cial Intelligence Advancement**

5 **SEC. 411. RESOURCES FOR SMALL BUSINESSES TO UTILIZE**  
6 **ARTIFICIAL INTELLIGENCE.**

7 Section 22A of the National Institute of Standards  
8 and Technology Act (15 U.S.C. 278h–1) is amended—

9 (1) by redesignating subsection (h) as sub-  
10 section (i); and

11 (2) by inserting after subsection (g) the fol-  
12 lowing new subsection:

13 “(h) DEVELOPMENT OF RESOURCES FOR SMALL  
14 BUSINESSES IN UTILIZING ARTIFICIAL INTELLIGENCE.—

15 “(1) IN GENERAL.—The Director shall, in car-  
16 rying out subsection (a), develop or identify, and dis-  
17 seminate (in accordance with paragraph (4)), re-  
18 sources for small business concerns (as defined in  
19 section 3 of the Small Business Act (15 U.S.C.  
20 632)) relating to artificial intelligence. Such re-  
21 sources may include technical standards, best prac-  
22 tices, benchmarks, methodologies, procedures, or  
23 processes for the understanding, adoption, or inte-  
24 gration of artificial intelligence.

1           “(2) REQUIREMENTS.—The Director shall en-  
2           sure that the resources described in paragraph (1)  
3           satisfy the following requirements:

4                   “(A) Are generally applicable and usable  
5                   by a wide range of small business concerns.

6                   “(B) Include elements that promote basic  
7                   understanding, identification, and adoption of  
8                   proper use cases of artificial intelligence.

9                   “(C) Include case studies of practical ap-  
10                  plication across a range of business sizes and  
11                  types.

12                  “(D) Are technology-neutral and relevant  
13                  to technologies that are accessible and suitable  
14                  for small business concerns.

15                  “(E) Are based on international voluntary  
16                  standards as applicable, and are consistent with  
17                  the Stevenson-Wydler Technology Innovation  
18                  Act of 1980 (15 U.S.C. 3701 et seq.).

19                  “(F) Include recommendations and ref-  
20                  erences to existing Federal educational re-  
21                  sources, including the risk management frame-  
22                  work under subsection (c) and activities relating  
23                  to the national cybersecurity awareness and  
24                  education program under section 303 of the Cy-

1           bersecurity Enhancement Act of 2014 (15  
2           U.S.C. 7443).

3           “(3) REVIEW AND UPDATE OF RESOURCES.—  
4           Not later than two years after the date of the enact-  
5           ment of this subsection and not less frequently than  
6           once every two years thereafter, the Director shall  
7           carry out the following:

8                   “(A) Review the resources described in  
9                   paragraph (1).

10                   “(B) Update such resources as the Direc-  
11                   tor considers appropriate.

12           “(4) DISSEMINATION AND USE OF TRAINING  
13           RESOURCES.—The Director shall coordinate with the  
14           Administrator of the Small Business Administration  
15           regarding the distribution and use through the re-  
16           source partners of the Small Business Administra-  
17           tion of the resources described in paragraph (1).

18           “(5) VOLUNTARY RESOURCES.—The use of the  
19           resources described in paragraph (1) shall be consid-  
20           ered voluntary.

21           “(6) REPORT.—

22                   “(A) IN GENERAL.—Not later than four  
23                   years after the date of the enactment of this  
24                   subsection, the Director shall submit to the  
25                   Committee on Science, Space, and Technology

1 of the House of Representatives and the Com-  
2 mittee on Commerce, Science, and Transpor-  
3 tation of the Senate a report on the develop-  
4 ment, identification, dissemination, and use of  
5 the resources described in paragraph (1), in-  
6 cluding updates made pursuant to paragraph  
7 (3).

8 “(B) CONTENTS.—The report under sub-  
9 paragraph (A) shall include the following:

10 “(i) A list of the resources described  
11 in paragraph (1), including updates made  
12 pursuant to paragraph (3).

13 “(ii) Relevant feedback from recipi-  
14 ents of such resources, and disseminators  
15 of such resources pursuant to paragraph  
16 (4).

17 “(iii) Recommendations to Congress  
18 for further actions to help with the utiliza-  
19 tion of artificial intelligence by small busi-  
20 ness concerns.”.

1 **TITLE V—SAFEGUARDING AMER-**  
2 **ICANS AND DETERRING**  
3 **HARMFUL DEEPPAKES**

4 **Subtitle A—Disrupting Explicit**  
5 **Forged Images and Non-Consensual Edits**  
6

7 **SEC. 501. CIVIL ACTION RELATING TO DISCLOSURE OF IN-**  
8 **TIMATE IMAGES.**

9 (a) DEFINITIONS.—Section 1309 of the Consolidated  
10 Appropriations Act, 2022 (15 U.S.C. 6851) is amended—

11 (1) in the section heading, by inserting “**OR**  
12 **NONCONSENSUAL ACTIVITY INVOLVING DIG-**  
13 **ITAL FORGERIES**” after “**INTIMATE IMAGES**”;  
14 and

15 (2) in subsection (a)—

16 (A) in paragraph (2), by inserting “com-  
17 petent,” after “conscious,”;

18 (B) by striking paragraph (3);

19 (C) by redesignating paragraph (4) as  
20 paragraph (3);

21 (D) by redesignating paragraphs (5) and  
22 (6) as paragraphs (6) and (7), respectively;

23 (E) by inserting after paragraph (3) the  
24 following:

1           “(4) IDENTIFIABLE INDIVIDUAL.—The term  
2           ‘identifiable individual’ means an individual whose  
3           body appears in whole or in part in an intimate vis-  
4           ual depiction or intimate digital forgery and who is  
5           identifiable by virtue of the individual’s face, like-  
6           ness, or other distinguishing characteristic, such as  
7           a unique birthmark or other recognizable feature, or  
8           from information displayed in connection with the  
9           intimate visual depiction or intimate digital forgery.

10           “(5) INTIMATE DIGITAL FORGERY.—

11           “(A) IN GENERAL.—The term ‘intimate  
12           digital forgery’ means any intimate visual depic-  
13           tion of an identifiable individual that—

14                   “(i) falsely represents, in whole or in  
15                   part—

16                           “(I) the identifiable individual; or

17                           “(II) the conduct or content that  
18                           makes the visual depiction intimate;

19                           “(ii) is created through the use of  
20                           software, machine learning, artificial intel-  
21                           ligence, or any other computer-generated  
22                           or technological means, including by adapt-  
23                           ing, modifying, manipulating, or altering  
24                           an authentic visual depiction; and

1                   “(iii) is indistinguishable from an au-  
2                   thentic visual depiction of the identifiable  
3                   individual when viewed as a whole by a  
4                   reasonable person.

5                   “(B) LABELS, DISCLOSURE, AND CON-  
6                   TEXT.—Any visual depiction described in sub-  
7                   paragraph (A) constitutes an intimate digital  
8                   forgery for purposes of this paragraph regard-  
9                   less of whether a label, information disclosed  
10                  with the visual depiction, or the context or set-  
11                  ting in which the visual depiction is disclosed  
12                  states or implies that the visual depiction is not  
13                  authentic.”; and

14                  (F) in paragraph (6)(A), as so redesign-  
15                  ated—

16                   (i) in clause (i), by striking “or” at  
17                  the end;

18                   (ii) in clause (ii)—

19                   (I) in subclause (I), by striking  
20                  “individual;” and inserting “indi-  
21                  vidual; or”; and

22                   (II) by striking subclause (III);  
23                  and

24                   (iii) by adding at the end the fol-  
25                  lowing:

1                   “(iii) an identifiable individual engag-  
2                   ing in sexually explicit conduct; and”.

3           (b) CIVIL ACTION.—Section 1309(b) of the Consoli-  
4 dated Appropriations Act, 2022 (15 U.S.C. 6851(b)) is  
5 amended—

6           (1) in paragraph (1)—

7                   (A) by striking subparagraph (A) and in-  
8 serting the following:

9                   “(A) IN GENERAL.—Except as provided in  
10 paragraph (5)—

11                   “(i) an identifiable individual whose  
12 intimate visual depiction is disclosed, in or  
13 affecting interstate or foreign commerce or  
14 using any means or facility of interstate or  
15 foreign commerce, without the consent of  
16 the identifiable individual, where such dis-  
17 closure was made by a person who knows  
18 or recklessly disregards that the identifi-  
19 able individual has not consented to such  
20 disclosure, may bring a civil action against  
21 that person in an appropriate district court  
22 of the United States for relief as set forth  
23 in paragraph (3);

24                   “(ii) an identifiable individual who is  
25 the subject of an intimate digital forgery

1 may bring a civil action in an appropriate  
2 district court of the United States for re-  
3 lief as set forth in paragraph (3) against  
4 any person that knowingly produced or  
5 possessed the intimate digital forgery with  
6 intent to disclose it, knowingly disclosed  
7 the intimate digital forgery, or knowingly  
8 solicited and received the intimate digital  
9 forgery, if—

10 “(I) the identifiable individual  
11 did not consent to such production or  
12 possession with intent to disclose, dis-  
13 closure, or solicitation and receipt;

14 “(II) the person knew or reck-  
15 lessly disregarded that the identifiable  
16 individual did not consent to such pro-  
17 duction or possession with intent to  
18 disclose, disclosure, or solicitation and  
19 receipt; and

20 “(III) such production or posses-  
21 sion with intent to disclose, disclosure,  
22 or solicitation and receipt, is in or af-  
23 fects interstate or foreign commerce  
24 or uses any means or facility of inter-  
25 state or foreign commerce; and

1           “(iii) an identifiable individual who is  
2           the subject of an intimate digital forgery  
3           may bring a civil action in an appropriate  
4           district court of the United States for re-  
5           lief as set forth in paragraph (3) against  
6           any person that knowingly produced the  
7           intimate digital forgery if—

8                       “(I) the identifiable individual  
9                       did not consent to such production;

10                      “(II) the person knew or reck-  
11                      lessly disregarded that the identifiable  
12                      individual—

13                               “(aa) did not consent to  
14                               such production; and

15                               “(bb) was harmed, or was  
16                               reasonably likely to be harmed,  
17                               by the production; and

18                               “(III) such production is in or  
19                               affects interstate or foreign commerce  
20                               or uses any means or facility of inter-  
21                               state or foreign commerce.”; and

22           (B) in subparagraph (B)—

23                       (i) in the subparagraph heading, by  
24                       inserting “IDENTIFIABLE” before “INDI-  
25                       VIDUALS”; and

1           (ii) by striking “an individual who is  
2           under 18 years of age, incompetent, inca-  
3           pacitated, or deceased, the legal guardian  
4           of the individual” and inserting “an identi-  
5           fiable individual who is under 18 years of  
6           age, incompetent, incapacitated, or de-  
7           ceased, the legal guardian of the identifi-  
8           able individual”;

9           (2) in paragraph (2)—

10           (A) in subparagraph (A)—

11           (i) by inserting “identifiable” before  
12           “individual”;

13           (ii) by striking “depiction” and insert-  
14           ing “intimate visual depiction or intimate  
15           digital forgery”; and

16           (iii) by striking “distribution” and in-  
17           serting “disclosure, solicitation, or posses-  
18           sion”; and

19           (B) in subparagraph (B)—

20           (i) by inserting “identifiable” before  
21           “individual”;

22           (ii) by inserting “or intimate digital  
23           forgery” after “depiction” each place it ap-  
24           pears; and

1 (iii) by inserting “, solicitation, or  
2 possession” after “disclosure”;

3 (3) by redesignating paragraph (4) as para-  
4 graph (5);

5 (4) by striking paragraph (3) and inserting the  
6 following:

7 “(3) RELIEF.—

8 “(A) IN GENERAL.—In a civil action filed  
9 under this section, an identifiable individual  
10 may recover—

11 “(i) damages as provided under sub-  
12 paragraph (C); and

13 “(ii) the cost of the action, including  
14 reasonable attorney fees and other litiga-  
15 tion costs reasonably incurred.

16 “(B) PUNITIVE DAMAGES AND OTHER RE-  
17 LIEF.—The court may, in addition to any other  
18 relief available at law, award punitive damages  
19 or order equitable relief, including a temporary  
20 restraining order, a preliminary injunction, or a  
21 permanent injunction ordering the defendant to  
22 delete, destroy, or cease to display or disclose  
23 the intimate visual depiction or intimate digital  
24 forgery.

1                   “(C) DAMAGES.—For purposes of subpara-  
2 graph (A)(i), the identifiable individual may re-  
3 cover—

4                   “(i) liquidated damages in the amount  
5 of—

6                   “(I) \$150,000; or

7                   “(II) \$250,000 if the conduct at  
8 issue in the claim was—

9                   “(aa) committed in relation  
10 to actual or attempted sexual as-  
11 sault, stalking, or harassment of  
12 the identifiable individual by the  
13 defendant; or

14                   “(bb) the direct and proxi-  
15 mate cause of actual or at-  
16 tempted sexual assault, stalking,  
17 or harassment of the identifiable  
18 individual by any person; or

19                   “(ii) actual damages sustained by the  
20 individual, which shall include any profits  
21 of the defendant that are attributable to  
22 the conduct at issue in the claim that are  
23 not otherwise taken into account in com-  
24 puting the actual damages.

1           “(D) CALCULATION OF DEFENDANT’S  
2           PROFIT.—For purposes of subparagraph (C)(ii),  
3           to establish the defendant’s profits, the identifi-  
4           able individual shall be required to present  
5           proof only of the gross revenue of the defend-  
6           ant, and the defendant shall be required to  
7           prove the deductible expenses of the defendant  
8           and the elements of profit attributable to fac-  
9           tors other than the conduct at issue in the  
10          claim.

11          “(4) PRESERVATION OF PRIVACY.—In a civil  
12          action filed under this section, the court may issue  
13          an order to protect the privacy of a plaintiff, includ-  
14          ing by—

15               “(A) permitting the plaintiff to use a pseu-  
16               donym;

17               “(B) requiring the parties to redact the  
18               personal identifying information of the plaintiff  
19               from any public filing, or to file such documents  
20               under seal; and

21               “(C) issuing a protective order for pur-  
22               poses of discovery, which may include an order  
23               indicating that any intimate visual depiction or  
24               intimate digital forgery shall remain in the  
25               care, custody, and control of the court.”;

1 (5) in paragraph (5)(A), as so redesignated—

2 (A) by striking “image” and inserting “vis-  
3 ual depiction or intimate digital forgery”; and

4 (B) by striking “depicted” and inserting  
5 “identifiable”; and

6 (6) by adding at the end the following:

7 “(6) STATUTE OF LIMITATIONS.—Any action  
8 commenced under this section shall be barred unless  
9 the complaint is filed not later than 10 years from  
10 the later of—

11 “(A) the date on which the identifiable in-  
12 dividual reasonably discovers the violation that  
13 forms the basis for the claim; or

14 “(B) the date on which the identifiable in-  
15 dividual reaches 18 years of age.

16 “(7) DUPLICATIVE RECOVERY BARRED.—No re-  
17 lief may be ordered under paragraph (3) against a  
18 person who is subject to a judgment under section  
19 2255 of title 18, United States Code, for the same  
20 conduct involving the same identifiable individual  
21 and the same intimate visual depiction or intimate  
22 digital forgery.”.

23 (c) CONTINUED APPLICABILITY OF FEDERAL,  
24 STATE, AND TRIBAL LAW.—

1           (1) IN GENERAL.—This subtitle shall not be  
2           construed to impair, supersede, or limit a provision  
3           of Federal, State, or Tribal law.

4           (2) NO PREEMPTION.—Nothing in this subtitle  
5           shall prohibit a State or Tribal government from  
6           adopting and enforcing a provision of law governing  
7           disclosure of intimate images or nonconsensual activ-  
8           ity involving an intimate digital forgery, as defined  
9           in section 1309(a) of the Consolidated Appropria-  
10          tions Act, 2022 (15 U.S.C. 6851(a)), as amended by  
11          this subtitle, that is at least as protective of the  
12          rights of a victim as this subtitle.

13 **SEC. 502. SEVERABILITY; RULE OF CONSTRUCTION.**

14          (a) SEVERABILITY.—If any provision of this subtitle,  
15          an amendment made by this subtitle, or the application  
16          of such a provision or amendment to any person or cir-  
17          cumstance, is held to be unconstitutional, the remaining  
18          provisions of and amendments made by this subtitle, and  
19          the application of the provision or amendment held to be  
20          unconstitutional to any other person or circumstance, shall  
21          not be affected thereby.

22          (b) RULE OF CONSTRUCTION.—Nothing in this sub-  
23          title, or an amendment made by this subtitle, shall be con-  
24          strued to limit or expand any law pertaining to intellectual  
25          property.

## 1     **Subtitle B—AI Fraud Deterrence**

### 2     **SEC. 511. FINANCIAL CRIMES AND ARTIFICIAL INTEL-** 3                   **LIGENCE.**

4           (a) MAIL FRAUD.—Section 1341 of title 18, United  
5 States Code, is amended—

6                 (1) by striking “\$1,000,000” and inserting  
7 “\$2,000,000”; and

8                 (2) by inserting after the period at the end the  
9 following: “If the violation is committed with the as-  
10 sistance of artificial intelligence, such person shall be  
11 fined not more than \$1,000,000 or imprisoned not  
12 more than 20 years, or both.”.

13           (b) WIRE FRAUD.—Section 1343 of title 18, United  
14 States Code, is amended—

15                 (1) by striking “\$1,000,000” and inserting  
16 “\$2,000,000”; and

17                 (2) by inserting after the period at the end the  
18 following: “If the violation is committed with the as-  
19 sistance of artificial intelligence, such person shall be  
20 fined not more than \$1,000,000 or imprisoned not  
21 more than 20 years, or both.”.

22           (c) BANK FRAUD.—Section 1344 of title 18, United  
23 States Code, is amended—

24                 (1) by striking “Whoever knowingly” and in-  
25 serting the following:

1 “(a) IN GENERAL.—Whoever knowingly”; and

2 (2) by adding at the end the following:

3 “(b) ARTIFICIAL INTELLIGENCE.—Whoever commits  
4 subsection (a) with the assistance of artificial intelligence  
5 shall be fined not more than \$2,000,000 or imprisoned  
6 not more than 30 years, or both.”.

7 (d) ARTIFICIAL INTELLIGENCE DEFINED.—

8 (1) IN GENERAL.—Section 1346 of title 18,  
9 United States Code, is amended—

10 (A) by amending the section heading to  
11 read as follows: “**Definitions**”;

12 (B) by striking “chapter, the term” and  
13 inserting the following: “chapter—  
14 “(1) the term”;

15 (C) by striking the period at the end and  
16 inserting “; and”; and

17 (D) by adding at the end the following:

18 “(2) the term ‘artificial intelligence’ has the  
19 meaning given such term in section 5002 of the Na-  
20 tional Artificial Intelligence Initiative Act of 2020  
21 (15 U.S.C. 9401).”.

22 (2) CLERICAL AMENDMENT.—The table of sec-  
23 tions for chapter 63 of title 18, United States Code,  
24 is amended by striking the item relating to section  
25 1346 and inserting the following:

“1346. Definitions.”.

1 (e) MONEY LAUNDERING.—Section 1956 of title 18,  
2 United States Code, is amended—

3 (1) in subsection (a)—

4 (A) in paragraph (1), in the continuation  
5 text following subparagraph (B)(ii), by insert-  
6 ing after “or both” the following: “, or, in the  
7 case that such violation is committed with the  
8 assistance of artificial intelligence, shall be  
9 fined not more than \$1,000,000 or thrice the  
10 value of the monetary instrument or funds in-  
11 volved in the transaction, whichever is greater,  
12 or imprisoned for not more than 20 years, or  
13 both”;

14 (B) in paragraph (2), in the continuation  
15 text following subparagraph (B)(ii), by insert-  
16 ing after “or both” the following: “, or, in the  
17 case that such violation is committed with the  
18 assistance of artificial intelligence, shall be  
19 fined not more than \$1,000,000 or thrice the  
20 value of the monetary instrument or funds in-  
21 volved in the transportation, transmission, or  
22 transfer, whichever is greater, or imprisoned for  
23 not more than 20 years, or both”; and

24 (C) in paragraph (3), in the continuation  
25 text following subparagraph (C), by inserting

1 after “or both” the following: “, or, in the case  
2 that such violation is committed with the assist-  
3 ance of artificial intelligence, shall be fined  
4 under this title, or imprisoned for not more  
5 than 20 years, or both”; and

6 (2) in subsection (c)—

7 (A) in paragraph (8), by striking “and” at  
8 the end;

9 (B) in paragraph (9), by striking the pe-  
10 riod and inserting “; and”; and

11 (C) by adding at the end the following:

12 “(10) the term ‘artificial intelligence’ has the  
13 meaning given such term in section 5002 of the Na-  
14 tional Artificial Intelligence Initiative Act of 2020  
15 (15 U.S.C. 9401).”.

16 **SEC. 512. AI IMPERSONATION OF FEDERAL OFFICIALS.**

17 Section 912 of title 18, United States Code, is  
18 amended by inserting after “or both” the following: “, or,  
19 in the case that such violation is committed with the as-  
20 sistance of artificial intelligence (as such term is defined  
21 in section 5002 of the National Artificial Intelligence Ini-  
22 tiative Act of 2020 (15 U.S.C. 9401)), shall be fined not  
23 more than \$1,000,000, or imprisoned not more than three  
24 years, or both”.

1           **Subtitle C—AI Whistleblower**  
2                           **Protection**

3 **SEC. 521. DEFINITIONS.**

4           In this subtitle:

5                   (1) **AI SECURITY VULNERABILITY.**—The term  
6           “AI security vulnerability” means any failure or  
7           lapse in security that could potentially allow emerg-  
8           ing artificial intelligence technology to be acquired  
9           by a person (including a foreign entity) by theft or  
10          other means.

11                  (2) **AI VIOLATION.**—The term “AI violation”  
12          means—

13                   (A) any violation of Federal law, including  
14           rules and regulations, related to or committed  
15           during the development, deployment, or use of  
16           artificial intelligence; or

17                   (B) any failure to appropriately respond to  
18           a substantial and specific danger that the devel-  
19           opment, deployment, or use of artificial intel-  
20           ligence may pose to public safety, public health,  
21           or national security.

22                  (3) **ARTIFICIAL INTELLIGENCE.**—The term “ar-  
23          tificial intelligence” includes any of the following:

24                   (A) An artificial system that performs  
25           tasks under varying and unpredictable cir-

1           cumstances without significant human over-  
2           sight, or that can learn from experience and im-  
3           prove performance when exposed to data sets.

4           (B) An artificial system developed in com-  
5           puter software, physical hardware, or other con-  
6           text that solves tasks requiring human-like per-  
7           ception, cognition, planning, learning, commu-  
8           nication, or physical action.

9           (C) An artificial system designed to think  
10          or act like a human, including cognitive archi-  
11          tectures and neural networks.

12          (D) A set of techniques, including machine  
13          learning, that are designed to approximate a  
14          cognitive task.

15          (E) An artificial system designed to act ra-  
16          tionally, including an intelligent software agent  
17          or embodied robot that achieves goals using  
18          perception, planning, reasoning, learning, com-  
19          municating, decision making, and acting.

20          (4) ARTIFICIAL SYSTEM.—The term “artificial  
21          system”—

22                 (A) means any data system, software, ap-  
23                 plication, tool, or utility that operates in whole  
24                 or in part using dynamic or static machine

1 learning algorithms or other forms of artificial  
2 intelligence, including in the case—

3 (i) the data system, software, applica-  
4 tion, tool, or utility is established primarily  
5 for the purpose of researching, developing,  
6 or implementing artificial intelligence tech-  
7 nology; or

8 (ii) artificial intelligence capability is  
9 integrated into another system or agency  
10 business process, operational activity, or  
11 technology system; and

12 (B) does not include any common commer-  
13 cial product within which artificial intelligence  
14 is embedded, such as a word processor or map  
15 navigation system.

16 (5) COMMERCE; INDUSTRY OR ACTIVITY AF-  
17 FECTING COMMERCE.—The terms “commerce” and  
18 “industry or activity affecting commerce” mean any  
19 activity, business, or industry in commerce or in  
20 which a labor dispute would hinder or obstruct com-  
21 merce or the free flow of commerce, and include  
22 “commerce” and any “industry affecting com-  
23 merce”, as defined in section 501 of the Labor Man-  
24 agement Relations Act, 1947 (29 U.S.C. 142).

1           (6) COVERED INDIVIDUAL.—The term “covered  
2 individual” includes—

3           (A) an employee, including a former em-  
4 ployee; and

5           (B) an independent contractor, including a  
6 former independent contractor.

7           (7) EMERGING ARTIFICIAL INTELLIGENCE  
8 TECHNOLOGY.—The term “emerging artificial intel-  
9 ligence technology”, with respect to an AI security  
10 vulnerability, means any artificial system that exhib-  
11 its a level of performance, complexity, or autonomy  
12 that is comparable to or exceeds capabilities that are  
13 generally considered state-of-the-art as of the time  
14 of the AI security vulnerability.

15           (8) EMPLOYER.—The term “employer” means  
16 any person (including any officer, employee, con-  
17 tractor, subcontractor, agent, company, partnership,  
18 or other individual or entity) engaged in commerce  
19 or an industry or activity affecting commerce who  
20 pays any compensation to a covered individual in ex-  
21 change for the covered individual providing work to  
22 the person.

1 **SEC. 522. ANTI-RETALIATION PROTECTION FOR AI WHIS-**  
2 **TLEBLOWERS.**

3 (a) PROHIBITION AGAINST RETALIATION.—No em-  
4 ployer may, directly or indirectly, discharge, demote, sus-  
5 pend, threaten, blacklist, harass, or in any other manner  
6 discriminate against a covered individual in the terms and  
7 conditions of employment or post-employment of the cov-  
8 ered individual (or the terms and conditions of work pro-  
9 vided by the covered individual as an independent con-  
10 tractor) because of any lawful act done by the covered in-  
11 dividual—

12 (1) in providing information regarding an AI  
13 security vulnerability or AI violation, or any conduct  
14 that the covered individual reasonably believes con-  
15 stitutes an AI security vulnerability or AI violation,  
16 to—

17 (A) the appropriate regulatory official or  
18 the Attorney General;

19 (B) a regulatory or law enforcement agen-  
20 cy; or

21 (C) any Member of Congress or any com-  
22 mittee of Congress;

23 (2) in initiating, testifying in, or assisting in  
24 any investigation or judicial or administrative action  
25 of an appropriate regulatory or law enforcement  
26 agency or the Department of Justice, or any inves-

1           tigation of Congress, based upon or related to the  
2           information described in paragraph (1); or

3           (3) in providing information regarding an AI  
4           security vulnerability or AI violation, or any conduct  
5           that the covered individual reasonably believes con-  
6           stitutes an AI security vulnerability or AI violation,  
7           to—

8                   (A) a person with supervisory authority  
9                   over the covered individual at the employer of  
10                  the covered individual; or

11                  (B) another individual working for the em-  
12                  ployer described in subparagraph (A) whom the  
13                  covered individual reasonably believes has the  
14                  authority to—

15                          (i) investigate, discover, or terminate  
16                          the misconduct; or

17                          (ii) take any other action to address  
18                          the misconduct.

19           (b) ENFORCEMENT.—

20                  (1) IN GENERAL.—A covered individual who al-  
21                  leges such individual is aggrieved by a violation of  
22                  subsection (a) may seek relief under paragraph (3)  
23                  by—

1 (A) filing a complaint with the Secretary of  
2 Labor in accordance with the requirements of  
3 paragraph (2)(A); or

4 (B) if the Secretary of Labor has not  
5 issued a final decision in accordance with such  
6 paragraph within 180 days of the filing of such  
7 complaint, and there is no showing that such a  
8 delay is due to the bad faith of the covered indi-  
9 vidual, bringing an action against the employer  
10 at law or in equity in the appropriate district  
11 court of the United States, which shall have ju-  
12 risdiction over such an action without regard to  
13 the amount in controversy.

14 (2) PROCEDURE.—

15 (A) DEPARTMENT OF LABOR COM-  
16 PLAINS.—

17 (i) IN GENERAL.—Except as provided  
18 in clause (ii) and paragraph (3), a com-  
19 plaint filed with the Secretary of Labor  
20 under paragraph (1)(A) shall be governed  
21 by the rules and procedures set forth in  
22 section 42121(b) of title 49, United States  
23 Code, including the legal burdens of proof  
24 described in such section.

1 (ii) EXCEPTIONS.—With respect to a  
2 complaint filed under paragraph (1)(A),  
3 notification required under section  
4 42121(b)(1) of title 49, United States  
5 Code, shall be made to each person named  
6 in the complaint, including the employer.

7 (B) DISTRICT COURT ACTIONS.—

8 (i) JURY TRIAL.—A party to an action  
9 brought under paragraph (1)(B) shall be  
10 entitled to trial by jury.

11 (ii) STATUTE OF LIMITATIONS.—

12 (I) IN GENERAL.—An action may  
13 not be brought under paragraph  
14 (1)(B)—

15 (aa) more than 6 years after  
16 the date on which the violation of  
17 subsection (a) occurs; or

18 (bb) more than 3 years after  
19 the date on which facts material  
20 to the right of action are known,  
21 or reasonably should have been  
22 known, by the covered individual  
23 bringing the action.

24 (II) REQUIRED ACTION WITHIN  
25 10 YEARS.—Notwithstanding sub-

1 clause (I), an action under paragraph  
2 (1)(B) may not in any circumstance  
3 be brought more than 10 years after  
4 the date on which the violation occurs.

5 (3) RELIEF.—Relief for a covered individual  
6 prevailing with respect to a complaint filed under  
7 paragraph (1)(A) or an action under paragraph  
8 (1)(B) shall include—

9 (A) reinstatement with the same seniority  
10 status that the covered individual would have  
11 had, but for the violation;

12 (B) two times the amount of back pay oth-  
13 erwise owed to the covered individual, with in-  
14 terest;

15 (C) the payment of compensatory damages,  
16 which shall include compensation for litigation  
17 costs, expert witness fees, and reasonable attor-  
18 neys' fees; and

19 (D) any other appropriate remedy with re-  
20 spect to the violation as determined by the Sec-  
21 retary of Labor in a complaint under subpara-  
22 graph (A) of paragraph (1) or by the court in  
23 an action under subparagraph (B) of such  
24 paragraph.

1 (c) NONENFORCEABILITY WAIVERS OF RIGHTS OR  
2 REMEDIES.—The rights and remedies provided for in this  
3 section may not be waived or altered by any contract,  
4 agreement, policy form, or condition of employment (or  
5 condition of work as an independent contractor), including  
6 by any agreement requiring a covered individual to engage  
7 in arbitration, mediation, or any other alternative dispute  
8 resolution process prior to seeking relief under subsection  
9 (b).

10 **TITLE VI—EXPANDING EDU-**  
11 **CATION, LITERACY, AND IN-**  
12 **CLUSION**

13 **Subtitle A—Codifying AI Literacy**  
14 **Efforts of the AI Task Force**

15 **SEC. 601. AI LITERACY EFFORTS OF THE AI TASK FORCE.**

16 The Director of the National Science Foundation  
17 shall take such actions as may be necessary to provide to  
18 the STEM Teachers Corps Pilot Program and the Com-  
19 puter Science for All Program of the Foundation general  
20 support in accordance with the recommendations of the  
21 AI Task Force established on February 20, 2024, of the  
22 House of Representatives.

1     **Subtitle B—New Collar Jobs Tax**  
2                                     **Credit**

3     **SEC. 611. EMPLOYEE CYBERSECURITY EDUCATION.**

4             (a) IN GENERAL.—Subpart D of part IV of sub-  
5 chapter A of chapter 1 of the Internal Revenue Code of  
6 1986 is amended by adding at the end the following new  
7 section:

8     **“SEC. 45BB. EMPLOYEE CYBERSECURITY EDUCATION.**

9             “(a) IN GENERAL.—For purposes of section 38, the  
10 employee cybersecurity education credit determined under  
11 this section for the taxable year is an amount equal to  
12 50 percent of the aggregate qualified employee cybersecu-  
13 rity education expenses paid or incurred by the employer  
14 during such taxable year.

15             “(b) LIMITATION.—The amount allowed as a credit  
16 under subsection (a) for the taxable year with respect to  
17 an employee shall not exceed \$5,000.

18             “(c) QUALIFIED EMPLOYEE CYBERSECURITY EDU-  
19 CATION EXPENSES.—For purposes of this section, the  
20 term ‘qualified employee cybersecurity education expenses’  
21 means amounts paid or incurred for each employee who  
22 earns a certificate or degree at the undergraduate or grad-  
23 uate level or industry-recognized certification relating to  
24 those specialty areas and work roles that are listed in  
25 NCWF Work Roles in the document entitled, ‘NICE Cy-

1 bersecurity Workforce Framework (NCWF)', or any suc-  
2 cessor thereto, published by the National Initiative for Cy-  
3 bersecurity Education (NICE) of the National Institute  
4 of Standards and Technology.

5 “(d) CERTAIN RULES TO APPLY.—Rules similar to  
6 the rules of subsections (i)(1) and (k) of section 51 shall  
7 apply for purposes of this section.”.

8 (b) CREDIT MADE PART OF GENERAL BUSINESS  
9 CREDIT.—Subsection (b) of section 38 of such Code is  
10 amended—

11 (1) by striking “plus” at the end of paragraph  
12 (40),

13 (2) by striking the period at the end of para-  
14 graph (41) and inserting “, plus”, and

15 (3) by inserting after paragraph (41) the fol-  
16 lowing new paragraph:

17 “(42) the employee cybersecurity education  
18 credit determined under section 45BB(a).”.

19 (c) DENIAL OF DOUBLE BENEFIT.—Subsection (a)  
20 of section 280C of such Code is amended by inserting  
21 “45BB(a),” after “45S(a),”.

22 (d) CLERICAL AMENDMENT.—The table of sections  
23 for subpart D of part IV of subchapter A of chapter 1  
24 of such Code is amended by adding at the end the fol-  
25 lowing new item:

“Sec. 45BB. Employee cybersecurity education.”.

1 (e) EFFECTIVE DATE.—The amendments made by  
2 this section shall apply to taxable years beginning after  
3 the date of the enactment of this Act.

4 **SEC. 612. CYBERSECURITY TRAINING INCENTIVE FOR GOV-**  
5 **ERNMENT CONTRACTS.**

6 (a) IN GENERAL.—The head of an executive agency  
7 shall award a five percent score increase to each competi-  
8 tive proposal submitted by a qualified offeror for the eval-  
9 uation of a competitive proposal received in response to  
10 a solicitation for a contract valued in excess of  
11 \$5,000,000.

12 (b) APPLICABILITY.—This section shall apply with  
13 respect to any solicitation issued on an after the date of  
14 the enactment of this Act.

15 (c) DEFINITIONS.—In this section:

16 (1) EXECUTIVE AGENCY.—The term “executive  
17 agency” has the meaning given such term in section  
18 102 of title 40, United States Code.

19 (2) QUALIFIED OFFEROR.—The term “qualified  
20 offeror” means a business that has claimed the em-  
21 ployee cybersecurity education credit under section  
22 45BB of the Internal Revenue Code of 1986, as  
23 added by section 611, at least once within the three-  
24 year period preceding the date on which the business

1 submits a competitive proposal for a contract valued  
2 in excess of \$5,000,000.

3 **Subtitle C—Literacy in Future**  
4 **Technologies Artificial Intelligence**

5 **SEC. 621. PREPARING K-12 EDUCATORS AND STUDENTS**  
6 **FOR AN AI LITERATE FUTURE.**

7 (a) SENSE OF CONGRESS.—It is the sense of Con-  
8 gress that—

9 (1) AI literacy education is crucial not only for  
10 developing a skilled workforce and positioning the  
11 United States as a leader in this critical field, but  
12 also for mitigating the ethical challenges associated  
13 with AI;

14 (2) as strategic adversaries pursue AI tech-  
15 nology for the purposes of surveillance,  
16 weaponization, and economic competition, maintain-  
17 ing United States leadership through an AI literate  
18 public is essential;

19 (3) AI literacy education at the K–12 education  
20 levels forms the foundation for success in this com-  
21 petitive environment, and proficiency with these  
22 technologies is becoming necessary to be an engaged  
23 and informed citizen;

1           (4) AI technology is rapidly evolving, and cur-  
2           rent best practices for learning and developing AI  
3           literacy today may not be applicable in the future;

4           (5) awards made under this section should rec-  
5           ognize the rapidly evolving nature of AI technology,  
6           and identify and focus on those skills that will re-  
7           main relevant to AI literacy considering likely  
8           changes in AI capabilities; and

9           (6) awards made under this section should rec-  
10          ognize student progression to more advanced topics  
11          as they progress through K–12 education.

12          (b) AWARDS.—The Director may make awards on a  
13          merit-reviewed, competitive basis to institutions of higher  
14          education and nonprofit organizations (and consortia  
15          thereof) to support research activities to develop edu-  
16          cational curricula and evaluation methods for AI literacy  
17          at the K–12 education level.

18          (c) USE OF AWARD FUNDS.—Activities funded by  
19          awards made under this section may include the following:

20               (1) Formal and informal K–12 education cur-  
21               riculum development focused on the essential abili-  
22               ties and competencies necessary for AI literacy that  
23               is learner-centered, project-based, and can be per-  
24               sonalized in the classroom.

1           (2) Engaging State and local educational agen-  
2           cies, principals, educators, and other school leaders  
3           of students in kindergarten through grade 12, in  
4           professional learning opportunities to—

5                   (A) enhance AI literacy and proficiency;

6                   and

7                   (B) develop best practices.

8           (3) Developing AI literacy evaluation tools for  
9           educators assessing proficiency in AI literacy.

10           (4) Designing and implementing professional  
11           development courses and experiences in AI literacy,  
12           including mentoring, for State and local educational  
13           agencies, principals, educators, and other school  
14           leaders that integrate in-person, virtual, and dis-  
15           tance learning experiences.

16           (5) Development of hands-on learning tools to  
17           assist in developing and improving AI literacy.

18           (6) Augmenting existing curriculum to incor-  
19           porate AI literacy where appropriate, including re-  
20           sponsible use of AI in learning.

21           (7) Additional activities determined appropriate  
22           by the Director.

23           (d) IMPLEMENTATION.—The Director may carry out  
24           this section by making awards through new or existing  
25           programs.

1 (e) DEFINITIONS.—In this section:

2 (1) AI.—The term “AI” has the meaning given  
3 the term “artificial intelligence” in section 5002 of  
4 the National Artificial Intelligence Initiative Act of  
5 2020 (15 U.S.C. 9401).

6 (2) AI LITERACY.—The term “AI literacy”  
7 means having the age-appropriate knowledge and  
8 ability to use AI effectively, to critically interpret  
9 outputs, to solve problems in an AI-enabled world,  
10 and to safely and ethically use AI.

11 (3) DIRECTOR.—The term “Director” means  
12 the Director of the National Science Foundation.

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

17 (5) K–12 EDUCATION.—The term “K–12 edu-  
18 cation” means elementary schools and secondary  
19 schools, as such terms are defined in section 8101  
20 of the Elementary and Secondary Education Act of  
21 1965 (20 U.S.C. 7801).

1     **Subtitle D—Expanding AI Voices**  
2             **Through Capacity Building**

3     **SEC. 631. EXPANDING CAPACITY IN ARTIFICIAL INTEL-**  
4             **LIGENCE SCIENCE.**

5             Section 5401 of the National Artificial Intelligence  
6     Initiative Act of 2020 (15 U.S.C. 9451) is amended by—

7             (1) redesignating subsection (g) as subsection  
8             (h); and

9             (2) inserting after subsection (f) the following  
10            new subsection:

11            “(g) EXPANDING CAPACITY IN ARTIFICIAL INTEL-  
12     LIGENCE.—

13            “(1) IN GENERAL.—The Director of the Na-  
14     tional Science Foundation, in consultation with  
15     agency heads the Director considers appropriate,  
16     shall make awards on a competitive, merit-reviewed  
17     basis to eligible institutions of higher education spec-  
18     ified in paragraph (2) or nonprofit organizations (or  
19     consortia thereof) to broaden participation in artifi-  
20     cial intelligence research, education, and workforce  
21     development by increasing the ability of the United  
22     States to increase capacity and partnerships for arti-  
23     ficial intelligence research and development.

24            “(2) ELIGIBLE INSTITUTIONS OF HIGHER EDU-  
25     CATION SPECIFIED.—An eligible institution of higher

1 education specified in this paragraph is any of the  
2 following:

3 “(A) An institution of higher education,  
4 that, according to the data published by the  
5 National Center for Science and Engineering  
6 Statistics, is not, on average, among the top  
7 100 institutions in Federal research and devel-  
8 opment expenditures during the 3-year period  
9 prior to the year of the award concerned.

10 “(B) A historically Black college or univer-  
11 sity.

12 “(C) A minority-serving institution.

13 “(D) A Tribal College or University.

14 “(E) A consortium of any of the entities  
15 specified in subparagraphs (A) through (D).

16 “(3) COLLABORATIONS.—A consortium receiv-  
17 ing an award under this subsection may include any  
18 of the following:

19 “(A) Mutually beneficial partnerships with  
20 institutions of higher education, nonprofit orga-  
21 nizations, Federal agencies, State, territorial,  
22 local, and Tribal governments, and private sec-  
23 tor entities.

24 “(B) Developing partnerships with any of  
25 the following:

1                   “(i) Artificial intelligence research in-  
2                   stitutes under section 5201.

3                   “(ii) Recipients of other relevant  
4                   awards made by the Director of the Na-  
5                   tional Science Foundation.

6                   “(4) USE OF FUNDS.—In carrying out the ac-  
7                   tivities under this subsection, an eligible institution  
8                   of higher education or nonprofit organization (or  
9                   consortium thereof) shall carry out one or more of  
10                  the following:

11                  “(A) Development or expansion of research  
12                  programs in artificial intelligence and related  
13                  disciplines.

14                  “(B) Faculty recruitment and professional  
15                  development in artificial intelligence and related  
16                  disciplines.

17                  “(C) Bridge programs focused on pre-  
18                  paring post-baccalaureate students for graduate  
19                  programs in artificial intelligence and related  
20                  disciplines.

21                  “(D) Provide or broker access to research  
22                  resources, including computing resources, net-  
23                  working, data facilities, and software engineer-  
24                  ing support for artificial intelligence research  
25                  and development.

1           “(E) Community building activities to fos-  
2           ter mutually beneficial public-private collabora-  
3           tion with Federal research agencies, industry,  
4           Federal laboratories, academia, and nonprofit  
5           organizations.

6           “(F) Development and hosting of intra- or  
7           inter-institutional workshops to broaden work-  
8           force participation in artificial intelligence re-  
9           search and development.

10           “(G) Activities to integrate ethical and re-  
11           sponsible practices and principles into education  
12           programs in artificial intelligence and related  
13           disciplines.

14           “(H) Other activities necessary to build re-  
15           search capacity, education pathways, and work-  
16           force development pathways in artificial intel-  
17           ligence and related disciplines.

18           “(5) OUTREACH.—The Director of the National  
19           Science Foundation shall—

20           “(A) conduct outreach to eligible institu-  
21           tions of higher education specified in paragraph  
22           (2) and nonprofit organizations to apply for  
23           awards under this subsection; and

24           “(B) engage participants from all regions  
25           of the United States, especially individuals from

1 underserved communities and groups histori-  
2 cally underrepresented in science, technology,  
3 engineering, and mathematics.

4 “(6) DUPLICATION.—The Director of the Na-  
5 tional Science Foundation shall ensure awards made  
6 under this section are complimentary to, and not du-  
7 plicative of, awards made under existing programs.

8 “(7) ADDITIONAL CONSIDERATIONS.—In mak-  
9 ing awards under this subsection, the Director of the  
10 National Science Foundation may also consider the  
11 following:

12 “(A) The extent to which the eligible insti-  
13 tutions of higher education specified in para-  
14 graph (2) and nonprofit organizations applying  
15 for such awards support students from diverse  
16 backgrounds, including first-generation under-  
17 graduate students.

18 “(B) The geographic diversity of such in-  
19 stitutions and organizations.

20 “(C) Relative resource constraints of such  
21 institutions and organizations.

22 “(8) DEFINITIONS.—In this subsection:

23 “(A) HISTORICALLY BLACK COLLEGE OR  
24 UNIVERSITY.—The term ‘historically Black col-  
25 lege or university’ has the meaning given the

1 term ‘part B institution’ in section 322 of the  
2 Higher Education Act of 1965 (20 U.S.C.  
3 1061).

4 “(B) MINORITY-SERVING INSTITUTION.—  
5 The term ‘minority-serving institution’ means a  
6 Hispanic-serving institution (as defined in sec-  
7 tion 502 of the Higher Education Act of 1965  
8 (20 U.S.C. 1101a)); an Alaska Native-serving  
9 institution or Native Hawaiian-serving institu-  
10 tion (as defined in section 317 of such Act (20  
11 U.S.C. 1059d)); or a predominantly Black insti-  
12 tution, Asian American and Native American  
13 Pacific Islander-serving institution, or Native  
14 American-serving nontribal institution (as de-  
15 fined in section 371 of such Act (20 U.S.C.  
16 1067q)).

17 “(C) NONPROFIT ORGANIZATION.—The  
18 term ‘nonprofit organization’ means an organi-  
19 zation described in subsection (c)(3) of section  
20 501 of the Internal Revenue Code of 1986 and  
21 exempt from tax under subsection (a) of such  
22 section.

23 “(D) TRIBAL COLLEGE OR UNIVERSITY.—  
24 The term ‘Tribal College or University’ has the  
25 meaning given such term in section 316 of the

1 Higher Education Act of 1965 (20 U.S.C.  
2 1059e).”.

3 **Subtitle E—NSF AI Education**

4 **SEC. 641. SCHOLARSHIPS AND FELLOWSHIPS IN ARTIFI-**  
5 **CIAL INTELLIGENCE.**

6 Paragraph (2) of section 5401(e) of the National Ar-  
7 tificial Intelligence Initiative Act of 2020 (15 U.S.C.  
8 9451(e)) is amended—

9 (1) in the heading, by striking “FACULTY”; and  
10 (2) by adding at the end the following new sub-  
11 paragraphs:

12 “(D) STUDENT SCHOLARSHIPS AND FEL-  
13 LOWSHIPS IN ARTIFICIAL INTELLIGENCE.—

14 “(i) IN GENERAL.—The Director of  
15 the National Science Foundation may sup-  
16 port scholarships and fellowships for un-  
17 dergraduate and graduate students by  
18 making awards through institutions of  
19 higher education, including community col-  
20 leges, to students who are enrolled in pro-  
21 grams of study leading to degrees or con-  
22 centrations in or related to the design, re-  
23 search, assessment, development, deploy-  
24 ment, integration, or application of artifi-  
25 cial intelligence.

1           “(ii) CONSIDERATIONS.—In carrying  
2 out clause (i), the Director of the National  
3 Science Foundation may prioritize making  
4 awards to students who are enrolled in  
5 programs of study leading to degrees or  
6 concentrations in or related to any of the  
7 following:

8           “(I) The teaching of artificial in-  
9 telligence at elementary schools, sec-  
10 ondary schools, career and technical  
11 education schools, institutions of high-  
12 er education, or through other higher  
13 education and professional education  
14 programs.

15           “(II) Artificial intelligence and  
16 advanced manufacturing, including  
17 the integration of artificial intelligence  
18 into advanced manufacturing oper-  
19 ations.

20           “(III) Artificial intelligence and  
21 agriculture, including the integration  
22 of artificial intelligence into agricul-  
23 tural operations, prediction, and deci-  
24 sion making.

1           “(iii) AWARDS.—Scholarships and fel-  
2           lowships awarded under this subparagraph  
3           may be in the form of awards that cover  
4           the cost of tuition, education-related fees, a  
5           stipend, and professional development  
6           funds for a period of up to five years. Such  
7           scholarships and fellowships shall be paid  
8           directly to the institution of higher edu-  
9           cation in which the student is enrolled.

10           “(iv) OUTREACH.—The Director of  
11           the National Science Foundation shall con-  
12           duct outreach and encourage applications  
13           from rural-located institutions of higher  
14           education, rural-serving institutions of  
15           higher education (as such term is defined  
16           in section 861 of the Higher Education  
17           Act of 1965 (20 U.S.C. 1161q)), Tribal  
18           Colleges and Universities (as such term is  
19           defined in section 316 of such Act (20  
20           U.S.C. 1059c)), and institutions located in  
21           an Established Program to Stimulate Com-  
22           petitive Research (EPSCoR) jurisdiction.

23           “(v) METHOD.—The Director of the  
24           National Science Foundation may carry

1 out this subparagraph by making awards  
2 through new or existing programs.

3 “(E) ARTIFICIAL INTELLIGENCE PROFES-  
4 SIONAL DEVELOPMENT FELLOWSHIPS.—

5 “(i) IN GENERAL.—The Director of  
6 the National Science Foundation may sup-  
7 port activities to promote the exchange of  
8 ideas and encourage collaborations between  
9 institutions of higher education and indus-  
10 try partners in the field of artificial intel-  
11 ligence, including through fellowships for  
12 students, teachers, faculty, and industry  
13 professionals.

14 “(ii) SUPPLEMENTALS FOR STUDENTS  
15 AND FACULTY.—The Director of the Na-  
16 tional Science Foundation may award fel-  
17 lowships for students and faculty to pursue  
18 professional development programs in  
19 STEM fields that are administered by or  
20 affiliated with institutions of higher edu-  
21 cation, including community colleges, in  
22 order to enable recipients to attain skills,  
23 training, or education in partnership with  
24 industry members on the design, research,  
25 assessment, development, deployment, inte-

1                   gration, or application of artificial intel-  
2                   ligence.

3                   “(iii) FELLOWSHIPS FOR INDUSTRY  
4                   PROFESSIONALS.—The Director of the Na-  
5                   tional Science Foundation may award fel-  
6                   lowships to industry professionals to enable  
7                   recipients to seek short-term appointments  
8                   to instruct and educate students on the de-  
9                   sign, research, assessment, development,  
10                  deployment, integration, or application of  
11                  artificial intelligence.

12                  “(iv) FELLOWSHIPS FOR SCHOOL  
13                  PROFESSIONALS.—The Director of the Na-  
14                  tional Science Foundation may award fel-  
15                  lowships to teachers, school counselors,  
16                  and other school professionals for profes-  
17                  sional development programs in order to  
18                  enable recipients to attain skills, training,  
19                  or education in partnership with industry  
20                  members on the teaching, use of, or appli-  
21                  cation of artificial intelligence in K–12  
22                  education settings.

23                  “(v) AWARDS.—Awards made under  
24                  this subparagraph may be in the form of  
25                  awards that cover the cost of tuition, edu-

1 cation-related fees, a stipend, and profes-  
2 sional development funds for up to one  
3 year. Such awards shall be paid directly to  
4 the institution of higher education that ad-  
5 ministers, or is affiliated with, the program  
6 in which the fellowship recipient is partici-  
7 pating.

8 “(F) NATIONAL SCIENCE FOUNDATION  
9 OUTREACH CAMPAIGN.—

10 “(i) IN GENERAL.—The Director of  
11 the National Science Foundation may  
12 carry out a nationwide outreach campaign  
13 to students at elementary schools, sec-  
14 ondary schools, career and technical edu-  
15 cation schools, institutions of higher edu-  
16 cation, or through other higher education  
17 and professional education programs to in-  
18 crease awareness regarding National  
19 Science Foundation-funded artificial intel-  
20 ligence education opportunities.

21 “(ii) PRIORITY.—In carrying out the  
22 campaign described in clause (i), the Di-  
23 rector of the National Science Foundation  
24 may prioritize outreach to groups histori-

1 cally underrepresented in STEM, including  
2 in underserved and rural areas.

3 “(G) ELIGIBILITY.—To be eligible to re-  
4 ceive a scholarship or fellowship under this  
5 paragraph, an individual shall satisfy all of the  
6 following:

7 “(i) Be a citizen, national, or lawful  
8 permanent resident of the United States.

9 “(ii) Demonstrate a commitment to a  
10 career in advancing the field of artificial  
11 intelligence.

12 “(iii) Accept the terms of such schol-  
13 arship or fellowship, as the case may be.

14 “(H) REPORT.—

15 “(i) IN GENERAL.—Not later than  
16 seven years after the date of the enactment  
17 of this subparagraph, the Director of the  
18 National Science Foundation shall submit  
19 to Congress, and make widely available to  
20 the public, a report including any rec-  
21 ommendations for legislative action that  
22 could optimize the effectiveness of the  
23 scholarships and fellowships under this  
24 paragraph.

1                   “(ii) REPORT REQUIREMENTS.—In  
2                   preparing the report under clause (i), the  
3                   Director of the National Science Founda-  
4                   tion may, as practicable—

5                   “(I) include an assessment of the  
6                   effectiveness of such scholarships and  
7                   fellowships in expanding apprentice-  
8                   ships, internships, and other applied  
9                   or experiential learning opportunities  
10                  offered by employers in conjunction  
11                  with community colleges or other in-  
12                  stitutions of higher education;

13                  “(II) assess the number of stu-  
14                  dents who received such scholarships  
15                  and fellowships;

16                  “(III) assess the percentage of  
17                  such students who successfully com-  
18                  plete their education programs and in-  
19                  tend to enter the workforce;

20                  “(IV) assess the percentage of  
21                  undergraduate, graduate, and post-  
22                  doctoral students who enter the work-  
23                  force in a field relating to such a  
24                  scholarship or fellowship;

1                   “(V) assess the impact in the  
2                   number of K–12 teachers, school  
3                   counselors, and other school profes-  
4                   sionals who received such a scholar-  
5                   ship or fellowship; and

6                   “(VI) include an assessment of  
7                   the effects such scholarships and fel-  
8                   lowships have on related fields.”.

9   **SEC. 642. COMMUNITY COLLEGE AND AREA CAREER AND**  
10                   **TECHNICAL EDUCATIONAL SCHOOL CENTERS**  
11                   **OF AI EXCELLENCE.**

12           (a) IN GENERAL.—Subparagraph (B) of section  
13 5401(e)(3) of the National Artificial Intelligence Initiative  
14 Act of 2020 (15 U.S.C. 9451(e)(3)) is amended to read  
15 as follows:

16                   “(B) CENTERS OF AI EXCELLENCE.—

17                   “(i) DEFINITIONS.—In this subpara-  
18                   graph:

19                   “(I) AREA CAREER AND TECH-  
20                   NICAL EDUCATION SCHOOL.—The  
21                   term ‘area career and technical edu-  
22                   cation school’ has the meaning given  
23                   such term in section 3 of the Carl D.  
24                   Perkins Career and Technical Edu-  
25                   cation Act of 2006 (20 U.S.C. 2302).

1                   “(II) ELIGIBLE APPLICANT.—

2                   The term ‘eligible applicant’ means a  
3                   community college, or area career and  
4                   technical education school, in partner-  
5                   ship with one or more of the fol-  
6                   lowing:

7                               “(aa) A Federal, State,  
8                               local, territorial, or Tribal gov-  
9                               ernment entity.

10                              “(bb) An institution of high-  
11                              er education.

12                              “(cc) An entity in private in-  
13                              dustry.

14                              “(dd) An economic develop-  
15                              ment organization or venture de-  
16                              velopment organization.

17                              “(ee) A labor or workforce  
18                              training organization, which may  
19                              include State workforce develop-  
20                              ment boards and local workforce  
21                              development boards as estab-  
22                              lished under sections 101 and  
23                              107 of the Workforce Innovation  
24                              and Opportunity Act (29 U.S.C.  
25                              3111 and 3122).

1                   “(ff) A nonprofit organiza-  
2                   tion.

3                   “(III) NONPROFIT ORGANIZA-  
4                   TION.—The term ‘nonprofit organiza-  
5                   tion’ has the meaning given such term  
6                   in section 201 of title 35, United  
7                   States Code.

8                   “(IV) VENTURE DEVELOPMENT  
9                   ORGANIZATION.—The term ‘venture  
10                  development organization’ has the  
11                  meaning given such term in section 27  
12                  of the Stevenson-Wydler Technology  
13                  Innovation Act of 1980 (15 U.S.C.  
14                  3722).

15                  “(ii) ESTABLISHMENT OF CENTERS  
16                  OF AI EXCELLENCE.—The Director of the  
17                  National Science Foundation, in coordina-  
18                  tion with the Regional Technology and In-  
19                  novation Hub program of the Department  
20                  of Commerce, and leveraging the Regional  
21                  Innovation Engines, the Advanced Techno-  
22                  logical Education program, and other pro-  
23                  grams of the National Science Foundation,  
24                  shall establish up to eight regionally and  
25                  geographically diverse eligible applicants to

1 be designated as Community College and  
2 Area Career and Technical Education Cen-  
3 ters of AI Excellence (referred to in this  
4 subparagraph as ‘Centers of AI Excel-  
5 lence’). Such Centers of AI Excellence  
6 shall enhance educational outcomes and  
7 drive workforce development by integrating  
8 artificial intelligence into teaching, learn-  
9 ing, and community engagement.

10 “(iii) APPLICATION.—An eligible ap-  
11 plicant seeking to be designated as a Cen-  
12 ter of AI Excellence shall submit to the Di-  
13 rector of the National Science Foundation  
14 an application at such time, in such man-  
15 ner, and containing such information as  
16 the Director may require. Such application  
17 shall include the following:

18 “(I) A description of the focus  
19 area or areas for such proposed Cen-  
20 ter of AI Excellence and how such  
21 area or areas are aligned with re-  
22 gional investments made by industry  
23 and the Federal Government.

24 “(II) A description of the capac-  
25 ity of such applicant to carry out the

1 purpose of such proposed Center of  
2 AI Excellence.

3 “(III) A description of current  
4 and anticipated future workforce de-  
5 mands in occupations directly related  
6 to such proposed Center of AI Excel-  
7 lence.

8 “(IV) A description of how such  
9 applicant will support the collection of  
10 information and data for evaluating  
11 such proposed Center of AI Excel-  
12 lence.

13 “(V) Outreach plans for recruit-  
14 ing and enrolling women and other  
15 underrepresented populations.

16 “(VI) An evaluation plan that in-  
17 cludes the use of outcome-oriented  
18 measures to assess the impact and ef-  
19 ficacy of such proposed Center for AI  
20 Excellence.

21 “(iv) ACTIVITIES.—A Center of AI  
22 Excellence shall develop and disseminate  
23 information regarding best practices for  
24 matters such as the following:

1           “(I) Artificial intelligence re-  
2 search and education at community  
3 colleges and area career and technical  
4 education schools.

5           “(II) Methods to scale up suc-  
6 cessful programs that perform re-  
7 search or provide education on artifi-  
8 cial intelligence at community colleges  
9 and area career and technical edu-  
10 cation schools.

11           “(III) Providing educators and  
12 teachers with actionable strategies  
13 and resources to effectively integrate  
14 artificial intelligence into curriculums  
15 in the classroom.

16           “(IV) Providing hands-on re-  
17 search opportunities on artificial intel-  
18 ligence and learning opportunities for  
19 students that are enabled through ar-  
20 tificial intelligence.

21           “(V) Identifying pathways for  
22 students to jobs that are enabled by  
23 artificial intelligence.

24           “(VI) Facilitating partnerships  
25 with employers, employer consortia, or

1 other private sector organizations that  
2 offer apprenticeships, internships, co-  
3 operative education, or applied learn-  
4 ing experiences in the field of artificial  
5 intelligence.

6 “(v) PARTNERSHIPS.—The Director  
7 of the National Science Foundation shall  
8 encourage applicants to consider including  
9 or partnering with a nonprofit organization  
10 or an institution of higher education (or a  
11 consortium thereof) that has extensive ex-  
12 perience and expertise in artificial intel-  
13 ligence.

14 “(vi) ACCOUNTABILITY AND DISSEMI-  
15 NATION.—

16 “(I) EVALUATION REQUIRED.—  
17 The Director of the National Science  
18 Foundation shall evaluate the activi-  
19 ties under clause (iv). Such evalua-  
20 tion, to the extent practicable, shall  
21 integrate the findings of research re-  
22 sulting from such activity or activities  
23 as a result of a designation under  
24 clause (ii) with the findings of other

1 research on artificial intelligence edu-  
2 cation.

3 “(II) REPORT ON EVALUA-  
4 TION.—Not later than 180 days after  
5 the completion of the evaluation under  
6 subclause (I), the Director of the Na-  
7 tional Science Foundation shall sub-  
8 mit to Congress and make widely  
9 available to the public a report that  
10 includes the following:

11 “(aa) The results of such  
12 evaluation.

13 “(bb) Any recommendations  
14 for administrative and legislative  
15 action that could optimize the ef-  
16 fectiveness of the designations  
17 under clause (ii).”.

18 **SEC. 643. AWARDS FOR RESEARCH ON ARTIFICIAL INTEL-**  
19 **LIGENCE IN EDUCATION.**

20 (a) IN GENERAL.—Section 5401 of the National Ar-  
21 tificial Intelligence Initiative Act of 2020 (15 U.S.C.  
22 9451), as amended by section 631, is further amended—

23 (1) by redesignating subsection (h) as sub-  
24 section (j); and

1           (2) by inserting after subsection (g) the fol-  
2           lowing new subsections:

3           “(h) AWARDS FOR RESEARCH ON ARTIFICIAL INTEL-  
4           LIGENCE IN EDUCATION.—

5           “(1) DEFINITIONS.—In this subsection:

6           “(A) ELIGIBLE ENTITY.—The term ‘eligi-  
7           ble entity’ means any of the following:

8           “(i) An institution of higher edu-  
9           cation.

10           “(ii) A nonprofit organization.

11           “(iii) A consortium of one or more in-  
12           stitutions of higher education or nonprofit  
13           organizations and one or more private sec-  
14           tor entities.

15           “(B) NONPROFIT ORGANIZATION.—The  
16           term ‘nonprofit organization’ has the meaning  
17           given such term in section 201 of title 35,  
18           United States Code.

19           “(2) AWARDS.—

20           “(A) IN GENERAL.—The Director of the  
21           National Science Foundation may make awards  
22           on a competitive, merit-reviewed basis to eligible  
23           entities, to enable such entities to promote re-  
24           search regarding teaching models, tools, and  
25           materials for artificial intelligence and its inte-

1           gration into the classroom, teaching, and learn-  
2           ing for pre-kindergarten through grade 12 stu-  
3           dents who are from low-income, rural, or Tribal  
4           populations.

5           “(B) METHOD.—The Director of the Na-  
6           tional Science Foundation may carry out sub-  
7           paragraph (A) by making awards through new  
8           or existing programs.

9           “(3) APPLICATION.—

10           “(A) IN GENERAL.—An eligible entity that  
11           seeks an award under this subsection shall sub-  
12           mit to the Director of the National Science  
13           Foundation an application at such time, in such  
14           manner, and containing such information as the  
15           Director may require.

16           “(B) CONTENTS.—An application under  
17           subparagraph (A) may include the following:

18           “(i) A description of the student de-  
19           mographics on which the research sup-  
20           ported under the award at issue would in-  
21           tend to focus.

22           “(ii) A description of any regional  
23           partnerships the eligible entity plans to  
24           utilize with respect to such award.

1           “(iii) With respect to an application  
2           that concerns the use or integration of ar-  
3           tificial intelligence, a description of poten-  
4           tial ethical concerns and implications of  
5           teacher, faculty, and student interactions  
6           with artificial intelligence.

7           “(iv) A description of how proposed  
8           research on teaching models, tools, and  
9           materials was developed in consultation  
10          with other educators, academia, industry,  
11          government entities, or civil society organi-  
12          zations.

13          “(v) Such other information as the  
14          Director may require.

15          “(4) USE OF AWARD FUNDS.—Awards de-  
16          scribed in paragraph (2)(A) shall be used by the re-  
17          cipient to—

18                 “(A) emphasize preparing incoming K–12  
19                 teachers to integrate artificial intelligence into  
20                 their classrooms in innovative ways; and

21                 “(B) support research to develop, pilot,  
22                 fully implement, or test areas, such as—

23                         “(i) instructional materials and high-  
24                         quality learning opportunities for teaching  
25                         artificial intelligence;

1           “(ii) models for the preparation of  
2           new teachers who will teach artificial intel-  
3           ligence;

4           “(iii) scalable models of professional  
5           development and ongoing support for  
6           teachers; and

7           “(iv) tools and models for teaching  
8           and learning aimed at supporting student  
9           success and inclusion in artificial intel-  
10          ligence across diverse populations, includ-  
11          ing low-income, rural, and Tribal popu-  
12          lations.

13          “(5) PARTNERSHIPS.—In making awards under  
14          this subsection, the Director of the National Science  
15          Foundation shall carry out the following:

16               “(A) Encourage applicants that, for the  
17               purpose of the proposed activity or activities  
18               funded through such award, include or partner  
19               with a nonprofit organization or an institution  
20               of higher education (or a consortium thereof)  
21               that has extensive experience and expertise in  
22               integrating artificial intelligence into K–12  
23               classrooms.

24               “(B) Encourage applicants that, for the  
25               purpose of such proposed activity or activities,

1 include or partner with a consortium of schools,  
2 institutions of higher education, school districts,  
3 or other State and local government entities.

4 “(C) Encourage applicants that, for the  
5 purpose of such proposed activity or activities,  
6 include commitments from school principals,  
7 other school leaders, or administrators to make  
8 a priority reforms and activities proposed by  
9 the applicant.

10 “(i) RURAL AND UNDERSERVED COMMUNITIES AR-  
11 TIFICIAL INTELLIGENCE COLLABORATIVE.—

12 “(1) IN GENERAL.—The Director of the Na-  
13 tional Science Foundation may establish a pilot pro-  
14 gram of regional cohorts in rural and traditionally  
15 underserved areas that will provide peer support,  
16 mentoring, and hands-on research experiences for  
17 educators, principals, and other school leaders of  
18 students in kindergarten through grade 12, in order  
19 to build a network allowing educators, principals,  
20 other school leaders to carry out the following:

21 “(A) Engage with one another on edu-  
22 cational efforts related to teaching and using  
23 artificial intelligence.

1           “(B) Interact with researchers, academia,  
2           and local industry involved in artificial intel-  
3           ligence.

4           “(2) METHOD.—The Director of the National  
5           Science Foundation may carry out this subsection by  
6           making awards through new or existing programs,  
7           including the pilot program authorized under section  
8           10511(a)(2)(B) of the Research and Development,  
9           Competition, and Innovation Act (42 U.S.C.  
10          19172(a)(2)(B)).”.

11 **SEC. 644. NATIONAL STEM TEACHER CORPS.**

12          Paragraph (6) of section 10311(c) of the Research  
13 and Development, Competition, and Innovation Act (42  
14 U.S.C. 18991(c)) is amended—

15           (1) in subparagraph (F), by striking “and”  
16           after the semicolon;

17           (2) in subparagraph (G), by striking the period  
18           at the end and inserting a semicolon; and

19           (3) by adding at the end the following new sub-  
20           paragraphs:

21           “(H) incorporating artificial intelligence  
22           skills development into the National STEM  
23           Teacher Corps; and

24           “(I) considering whether to develop artifi-  
25           cial intelligence best practices for high school

1 teachers, developed in consultation with other  
2 educators and academia.”.