

S. 2714 YOUNG SUBSTITUTE



AMENDMENT NO. \_\_\_\_\_

Calendar No. \_\_\_\_\_

Purpose: In the nature of a substitute.

**IN THE SENATE OF THE UNITED STATES—118th Cong., 2d Sess.**

**S. 2714**

To establish the National Artificial Intelligence Research Resource, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by Mr. YOUNG

Viz:

1 Strike all after the enacting clause and insert the following:  
2

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Creating Resources  
5 for Every American To Experiment with Artificial Intel-  
6 ligence Act of 2024” or the “CREATE AI Act of 2024”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

9 (1) Cutting-edge artificial intelligence research  
10 relies on access to computational resources and large  
11 datasets.

1           (2) Access to the computational resources and  
2           datasets necessary for artificial intelligence research  
3           and development is often limited to very large tech-  
4           nology companies.

5           (3) The lack of access to computational and  
6           data resources has resulted in insufficient diversity  
7           in the artificial intelligence research and develop-  
8           ment community.

9           (4) Engaging the full and diverse talent of the  
10          United States is critical for maintaining United  
11          States leadership in artificial intelligence and ensur-  
12          ing that artificial intelligence is developed in a man-  
13          ner that benefits all people of the United States.

14          (5) The National Artificial Intelligence Re-  
15          search Resource Task Force, authorized under sec-  
16          tion 5106 of the National Artificial Intelligence Ini-  
17          tiative Act of 2020 (15 U.S.C. 9401 et seq.), rec-  
18          ommended the establishment of a National Artificial  
19          Intelligence Research Resource in a report entitled  
20          “Strengthening and Democratizing the U.S. Artifi-  
21          cial Intelligence Innovation Ecosystem: An Imple-  
22          mentation Plan for a National Artificial Intelligence  
23          Research Resource”, issued on January 24, 2023.

1 **SEC. 3. NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH**  
2 **RESOURCE.**

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

6 **“TITLE LVI—NATIONAL ARTIFI-**  
7 **CIAL INTELLIGENCE RE-**  
8 **SEARCH RESOURCE**

“Sec. 5601. Definitions.

“Sec. 5602. Establishment; governance.

“Sec. 5603. Resources of the NAIRR.

“Sec. 5604. NAIRR processes and procedures.

9 **“SEC. 5601. DEFINITIONS.**

10 “In this title:

11 “(1) **ADVISORY COMMITTEE.**—The term ‘Advi-  
12 sory Committee’ means any Advisory Committee es-  
13 tablished under section 5602(c).

14 “(2) **AI TESTBED.**—The term ‘AI testbed’  
15 means a testbed described in section 22A(g) of the  
16 National Institute of Standards and Technology Act  
17 (15 U.S.C. 278h–1(g)).

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

21 “(4) **NATIONAL ARTIFICIAL INTELLIGENCE RE-**  
22 **SEARCH RESOURCE; NAIRR.**—The terms ‘National  
23 Artificial Intelligence Research Resource’ and

1 'NAIRR' have the meaning given the term 'National  
2 Artificial Intelligence Research Resource' in section  
3 5106(g).

4 "(5) OPERATING ENTITY.—The term 'Oper-  
5 ating Entity' means the Operating Entity selected  
6 by the Program Management Office as described in  
7 section 5602(b)(3)(A).

8 "(6) PROGRAM MANAGEMENT OFFICE.—The  
9 term 'Program Management Office' means the Pro-  
10 gram Management Office established under section  
11 5602(b).

12 "(7) RESOURCE OF THE NAIRR.—The term 're-  
13 source of the NAIRR' means a resource described in  
14 section 5603(b).

15 "(8) SELECT COMMITTEE ON AI.—The term  
16 'Select Committee on AI' means the Interagency  
17 Committee.

18 "(9) STEM.—The term 'STEM' means science,  
19 technology, engineering, and mathematics, including  
20 computer science.

21 **"SEC. 5602. ESTABLISHMENT; GOVERNANCE.**

22 "(a) ESTABLISHMENT.—Not later than 1 year after  
23 the date of enactment of the Creating Resources for Every  
24 American To Experiment with Artificial Intelligence Act  
25 of 2024, the Director of the National Science Foundation

1 shall establish the National Artificial Intelligence Re-  
 2 search Resource to—

3 “(1) spur innovation and advance artificial in-  
 4 telligence research and development;

5 “(2) advance the development of trustworthy  
 6 artificial intelligence;

7 “(3) improve access to artificial intelligence re-  
 8 sources for researchers and students of artificial in-  
 9 telligence, including groups historically underrep-  
 10 resented in STEM;

11 “(4) improve capacity for artificial intelligence  
 12 research in the United States; and

13 “(5) support the testing, benchmarking, and  
 14 evaluation of artificial intelligence systems developed  
 15 and deployed in the United States.

16 “(b) PROGRAM MANAGEMENT OFFICE.—

17 “(1) ESTABLISHMENT.—The Director of the  
 18 National Science Foundation shall establish within  
 19 the National Science Foundation a Program Man-  
 20 agement Office to oversee the day-to-day functions  
 21 of the NAIRR and shall appoint an individual to  
 22 head the Program Management Office.

23 “(2) STAFF.—

24 “(A) IN GENERAL.—The head of the Pro-  
 25 gram Management Office may identify staff

1 and direct all employees of the Program Man-  
2 agement Office, in accordance with the applica-  
3 ble provisions of title 5, United States Code.

4 “(B) REPRESENTATION.—The staff of the  
5 Program Management Office may include rep-  
6 resentation from other Executive agencies pro-  
7 viding support for NAIRR resources.

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

10 “(A) in consultation with any relevant Ad-  
11 visory Committee as appropriate—

12 “(i) overseeing and approving the op-  
13 erating plan for the NAIRR;

14 “(ii) developing the budget for the  
15 NAIRR, in consultation with Executive  
16 agencies and offices represented on the Se-  
17 lect Committee on AI;

18 “(iii) developing the funding oppor-  
19 tunity and soliciting bids for the Operating  
20 Entity, which will be responsible for oper-  
21 ation of the National Artificial Intelligence  
22 Research Resource;

23 “(iv) selecting, through a competitive  
24 and transparent process, a nongovern-  
25 mental organization, which may be an

1 independent legal entity or a consortium of  
2 1 or more partners (which may include  
3 federally funded research and development  
4 centers), to be designated the Operating  
5 Entity;

6 “(v) overseeing compliance with the  
7 contractual obligations of the Operating  
8 Entity;

9 “(vi) establishing evaluation criteria,  
10 including key performance indicators, for  
11 the NAIRR;

12 “(vii) overseeing asset allocation and  
13 utilization;

14 “(viii) identifying an external inde-  
15 pendent evaluation entity;

16 “(ix) assessing the performance of the  
17 Operating Entity on not less than an an-  
18 nual basis and, if such performance is un-  
19 satisfactory, ending the agreement with  
20 such Operating Entity and selecting a new  
21 Operating Entity in accordance with clause  
22 (iv);

23 “(x) developing funding opportunities  
24 for resources of the NAIRR, in consulta-  
25 tion with Executive agencies and offices.

1 represented on the Select Committee on  
2 AI; and

3 “(xi) coordinating resource contribu-  
4 tions from participating Federal agencies;

5 “(B) delegating, with appropriate over-  
6 sight, operational tasks to the Operating Enti-  
7 ty, including—

8 “(i) coordinating the provisioning of  
9 resources of the NAIRR;

10 “(ii) maintaining a portal and associ-  
11 ated services for users to access resources  
12 of the NAIRR;

13 “(iii) developing policies and proce-  
14 dures for the NAIRR;

15 “(iv) hiring and managing a staff (in-  
16 cluding experts in cyber infrastructure  
17 management, data science, research de-  
18 sign, privacy, ethics, civil rights and civil  
19 liberties, and legal and policy matters) to  
20 support the operations of the NAIRR;

21 “(v) continually modernizing NAIRR  
22 infrastructure;

23 “(vi) annually reviewing and cata-  
24 logging the performance of the NAIRR (in-  
25 cluding performance on the key perform-



1           ance indicators established under subpara-  
2           graph (A)(vi)), the resources of the  
3           NAIRR, and the NAIRR governance struc-  
4           ture;

5           “(vii) establishing and administering  
6           training to new users on accessing a re-  
7           source of the NAIRR, research design, and  
8           issues related to privacy, ethics, civil rights  
9           and civil liberties, safety, and trust-  
10          worthiness of artificial intelligence systems;

11          “(viii) facilitating connections to AI  
12          testbeds; and

13          “(ix) making educational resources of  
14          the NAIRR available to other Executive  
15          agencies, and to Congress and agencies in  
16          the legislative and judicial branches, for  
17          the purpose of educating Federal Govern-  
18          ment officials and employees about artifi-  
19          cial intelligence;

20          “(C) developing an annual report, trans-  
21          mitted to the Director of the Office of Science  
22          and Technology Policy, the Committee on Com-  
23          merce, Science, and Transportation of the Sen-  
24          ate, and the Committee on Science, Space, and  
25          Technology of the House of Representatives

1 and made available to the public, on the  
2 progress of the NAIRR that includes—

3 “(i) a summary of the information  
4 collected under subparagraph (B)(vi);

5 “(ii) a list of projects that used the  
6 NAIRR during the reporting period, in-  
7 cluding, as appropriate, relevant details  
8 about the projects that demonstrate the  
9 value to the public provided by the  
10 projects; and

11 “(iii) any recommendations for  
12 changes to the NAIRR; and

13 “(D) overseeing a periodic independent as-  
14 sessment of the NAIRR.

15 “(c) ADVISORY COMMITTEES.—

16 “(1) ESTABLISHMENT.—The head of the Pro-  
17 gram Management Office, acting through the Direc-  
18 tor of the Operating Entity, may establish 1 or more  
19 Advisory Committees to provide advice to the Oper-  
20 ating Entity and the Program Management Office.  
21 Any such Advisory Committees shall be comprised of  
22 members from government agencies, the private sec-  
23 tor, academia, and public interest groups.

24 “(2) DETERMINATION REGARDING APPLICA-  
25 BILITY OF FACA.—The Director of the National

1 Science Foundation may determine that the require-  
2 ments of chapter 10 of title 5, United States Code,  
3 shall not apply with respect to a specific Advisory  
4 Committee established under paragraph (1).

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

6 “(a) IN GENERAL.—The head of the Program Man-  
7 agement Office, acting through the Director of the Oper-  
8 ating Entity and in consultation with relevant Executive  
9 agencies and offices represented on the Select Committee  
10 on AI and any relevant Advisory Committee, shall—

11 “(1) coordinate and provision resources of the  
12 NAIRR;

13 “(2) establish processes to manage the procure-  
14 ment of new resources of the NAIRR, and intake of  
15 in-kind contribution of resources of the NAIRR,  
16 from Executive agencies or other entities;

17 “(3) establish policies on and review resources  
18 of the NAIRR for concerns related to ethics, privacy,  
19 civil rights, and civil liberties;

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

22 “(5) publicly report a summary of categories of  
23 available resources of the NAIRR, categories of  
24 sources of such resources of the NAIRR, and issues  
25 related to resources of the NAIRR.

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

4               “(1) A mix of computational resources that  
5 shall include—

6                       “(A) on-premises, cloud-based, hybrid, and  
7 emergent resources;

8                       “(B) public cloud providers providing ac-  
9 cess to popular computational and storage serv-  
10 ices for NAIRR users;

11                      “(C) an open source software environment  
12 for the NAIRR; and

13                      “(D) an application programming interface  
14 providing structured access to artificial intel-  
15 ligence models.

16               “(2) Data, including by—

17                      “(A)(i) in coordination with the National  
18 Institute of Standards and Technology and con-  
19 sistent with the guidance of the National  
20 Science and Technology Council titled ‘Desir-  
21 able Characteristics of Data Repositories for  
22 Federally Funded Data,’ dated May 2022, or  
23 any successor document, publishing interoper-  
24 ability standards for data repositories based on  
25 the data sharing and documentation standards

1 and guidelines produced under section 22A of  
2 the National Institute of Standards and Tech-  
3 nology Act (15 U.S.C. 278h-1); and

4 “(ii) selecting and developing, through a  
5 competitive bidding process, data repositories to  
6 be available to NAIRR users;

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

9 “(C) identifying and providing access to  
10 existing curated datasets of value and interest  
11 to the NAIRR user community;

12 “(D) establishing an artificial intelligence  
13 open data commons to facilitate community  
14 sharing and curation of data, code, and models;  
15 and

16 “(E) coordinating with the Interagency  
17 Council on Statistical Policy to explore options  
18 to make Federal statistical data available to  
19 NAIRR users, including through the standard  
20 application process established under section  
21 3583(a) of title 44, United States Code.

22 “(3) Educational tools and services, including  
23 by—

24 “(A) facilitating and curating educational  
25 and training materials;

1           “(B) providing technical training and user  
2 support; and

3           “(C) providing outreach and programming  
4 for groups historically underrepresented in  
5 STEM.

6           “(4) AI testbeds and high-performance com-  
7 puting testbeds, including by—

8           “(A) in coordination with the National In-  
9 stitute of Standards and Technology, facili-  
10 tating access to artificial intelligence testbeds  
11 through which researchers can measure, bench-  
12 mark, test, or evaluate engineering or algo-  
13 rithmic developments; and

14           “(B) developing a comprehensive catalog of  
15 open AI testbeds.

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

17       “(a) **USER ELIGIBILITY.**—

18           “(1) **ELIGIBLE USERS.**—Subject to paragraph  
19 (3), the following users shall be eligible for access to  
20 the NAIRR:

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

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

4           “(2) ENTITIES DESCRIBED.—An entity de-  
5           scribed in this paragraph is an entity that—

6           “(A) is based in the United States; and

7           “(B) is one of the following:

8           “(i) An institution of higher edu-  
9           cation.

10           “(ii) A nonprofit institution (as such  
11           term is defined in section 4 of the Steven-  
12           son-Wydler Technology Innovation Act of  
13           1980 (15 U.S.C. 3703)).

14           “(iii) An Executive agency, Congress,  
15           an agency of the legislative branch, or an  
16           agency of the judicial branch.

17           “(iv) A federally funded research and  
18           development center.

19           “(v) A small business concern (as  
20           such term is defined in section 3 of the  
21           Small Business Act (15 U.S.C. 632), not-  
22           withstanding section 121.103 of title 13,  
23           Code of Federal Regulations) that has re-  
24           ceived funding from an Executive agency,  
25           including through the Small Business In-

1           novation Research Program or the Small  
2           Business Technology Transfer Program  
3           (as described in section 9 of the Small  
4           Business Act (15 U.S.C. 638)).

5           “(vi) A category of entity that the Di-  
6           rector of the National Science Foundation  
7           and the Director of the Office of Science  
8           and Technology Policy determine shall be  
9           eligible.

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

12           “(3) EXCLUDED ENTITIES.—

13           “(A) IN GENERAL.—No individual is au-  
14           thorized to be an eligible user under paragraph  
15           (1) if the individual is employed by a foreign  
16           country that is listed in section 4872(d)(2) of  
17           title 10, United States Code, or is otherwise au-  
18           thorized by such country to act for or on its be-  
19           half.

20           “(B) ENFORCEMENT.—The Director of the  
21           National Science Foundation shall ensure that  
22           individuals authorized as eligible users meet the  
23           requirements of subparagraph (A).

24           “(4) USER ACCESS SELECTION.—The head of  
25           the Program Management Office, acting through the



1 Director of the Operating Entity, shall establish an  
2 application process for eligible users to request ac-  
3 cess to the NAIRR.

4 “(b) PRIVACY, ETHICS, CIVIL LIBERTIES, AND  
5 TRUSTWORTHINESS.—

6 “(1) IN GENERAL.—

7 “(A) REQUIREMENTS.—The head of the  
8 Program Management Office, acting through  
9 the Director of the Operating Entity and in  
10 consultation with any relevant Advisory Com-  
11 mittee, shall establish requirements, a review  
12 process for applications, and a process for au-  
13 diting resources of the NAIRR and research  
14 conducted using resources of the NAIRR on  
15 matters related to privacy, ethics, civil rights  
16 and civil liberties, safety, security, and trust-  
17 worthiness of artificial intelligence systems de-  
18 veloped using resources of the NAIRR.

19 “(B) FEDERAL STATISTICAL DATA.—Any  
20 auditing process required under subparagraph  
21 (A) for Federal statistical data included in a re-  
22 source of the NAIRR shall be completed by the  
23 head of a designated statistical agency (as de-  
24 fined in section 3576(e) of title 44, United  
25 States Code), in coordination with the Chief

1           Statistician of the United States, consistent  
2           with relevant law.

3           “(2) CONSISTENCY.—The head of the Program  
4           Management Office shall ensure the requirements  
5           and processes described in paragraph (1) are con-  
6           sistent with the policies of the Office of Management  
7           and Budget policy and relevant policies of other Ex-  
8           ecutive agencies. The head of the Program Manage-  
9           ment Office shall coordinate with the Senior Agency  
10          Official for Privacy and the General Counsel of the  
11          National Science Foundation in ensuring compliance  
12          with applicable privacy law and policy and Federal  
13          laws and regulations.

14          “(c) SYSTEM SECURITY AND USER ACCESS CON-  
15          TROLS.—The head of the Program Management Office,  
16          acting through the Director of the Operating Entity and  
17          in consultation with the Director of the Office of Manage-  
18          ment and Budget, the Director of the National Institute  
19          of Standards and Technology, and the Director of the Cy-  
20          bersecurity and Infrastructure Security Agency—

21                 “(1) shall establish minimum security require-  
22                 ments for all persons interacting with the NAIRR,  
23                 consistent with the most recent version of the Cyber-  
24                 security Framework, or successor document, main-

1       tained by the National Institute of Standards and  
2       Technology; and

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

6       “(d) FEE SCHEDULE.—

7               “(1) IN GENERAL.—The head of the Program  
8       Management Office, acting through the Director of  
9       the Operating Entity, may establish a fee schedule  
10      for access to the NAIRR. The Operating Entity may  
11      only charge fees in such fee schedule. Such fee  
12      schedule—

13              “(A) may differ by type of eligible user  
14      and type of affiliated entity described in sub-  
15      section (a);

16              “(B) shall include a free tier of access  
17      based on appropriated funds and anticipated  
18      costs and demand;

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

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

25      “(2) RETENTION AND USE OF FUNDS.—

1           “(A) RETAINING OF FUNDS.—Notwith-  
2 standing section 3302 of title 31, United States  
3 Code, the head of the Program Management  
4 Office may retain fees collected under this sub-  
5 section.

6           “(B) AVAILABILITY AND USE OF FUNDS.—  
7 Amounts retained under subparagraph (A)—

8                   “(i) shall remain available until ex-  
9 pended; and

10                   “(ii) shall be available to the head of  
11 the Program Management Office, without  
12 further appropriation, for the purposes of  
13 this title.

14           “(e) RESEARCH SECURITY.—The head of the Pro-  
15 gram Management Office, acting through the Director of  
16 the Operating Entity, shall—

17                   “(1) ensure conformance with the requirements  
18 of National Security Presidential Memorandum–33  
19 (relating to supported research and development na-  
20 tional policy), issued January 2021, and its imple-  
21 mentation guidance on research security and re-  
22 search integrity, or any successor policy document or  
23 guidance, by establishing NAIRR operating prin-  
24 ciples that emphasize the research integrity prin-

1 principles of openness, reciprocity, and transparency;  
2 and

3 “(2) designate a member of the leadership team  
4 for the Operating Entity as a research security point  
5 of contact with responsibility for overseeing conform-  
6 ance with the National Security Presidential Memo-  
7 randum–33 and its implementation guidance, or any  
8 successor policy document or guidance.

9 “(f) OPEN SOURCE.—The head of the Program Man-  
10 agement Office, acting through the Director of the Oper-  
11 ating Entity, shall establish policies to encourage software  
12 developed to administer the NAIRR, and software devel-  
13 oped using resources of the NAIRR, to be open-source  
14 software.”.

15 (b) CONFORMING AMENDMENTS.—The table of con-  
16 tents in section 2(b) of the William M. (Mac) Thornberry  
17 National Defense Authorization Act for Fiscal Year 2021  
18 (Public Law 116–283; 134 Stat. 3388) is amended by in-  
19 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.”.