117TH CONGRESS
2D SESSION

S. 4200

To establish a Secure Research Data Network.

IN THE SENATE OF THE UNITED STATES

MAY 12, 2022

Mr. WYDEN (for himself, Mr. PORTMAN, Mr. BOOZMAN, and Mrs. GILLI-BRAND) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To establish a Secure Research Data Network.

1   *Be it enacted by the Senate and House of Representa-*

2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4   This Act may be cited as the "Secure Research Data

5 Network Act".

6 **SEC. 2. DEFINITIONS.**

7   In this Act:

8   (1) SECTION 3561 OF TITLE 44 DEFINITIONS.—

9   The terms "evidence", "identifiable form", "statis-

10   tical activities", and "statistical purpose" have the

1   meanings given the terms in section 3561 of title 44,

2   United States Code.

3   (2) ANALYST.—The term "analyst" means a

4   person either employed by, or working on behalf of,

5   a Federal or State agency in empirical pro-

6   grammatic or data analysis.

7   (3) DATA ASSET.—The term "data asset" has

8   the meaning given the term in section 3502 of title

9   44, United States Code.

10   (4) DATA STEWARD.—The term "data steward"

11   means an individual employed by a Federal or State

12   agency who is familiar with the agency's data, and

13   has a statutory responsibility to protect the con-

14   fidentiality of such data and ensure its integrity and

15   quality.

16   (5) DIRECTOR.—Except as otherwise provided,

17   the term "Director" means the Director of the Na-

18   tional Science Foundation.

19   (6) REPORTING ENTITY.—The term "reporting

20   entity" means a Federal or State agency with data

21   relevant to governmentwide evidence-building activi-

22   ties.

23   (7) STATE.—The term "State" has the mean-

24   ing given the term in section 502 of the National

25   Science Foundation Authorization Act of 2010 (42

1 U.S.C. 1862p note), except that the definition shall
2 be applied by striking ", or any other territory or
3 possession of the United States".

SEC. 3. SECURE RESEARCH DATA NETWORK.

5 (a) ESTABLISHMENT.—

6 (1) IN GENERAL.—The Director, in consulta-
7 tion with the Statistical Official of the National
8 Science Foundation, the Chief Statistician of the
9 United States, and the Director of the National Ar-
10 tificial Intelligence Initiative Office, shall, subject to
11 the availability of appropriations, enter into an
12 agreement for the establishment of the "Secure Re-
13 search Data Network" or "SRDN", which shall be
14 operated as a pilot program.

15 (2) TERM OF PILOT PROGRAM.—The pilot pro-
16 gram operated under paragraph (1) shall run for 3
17 years, with the possibility of not more than two 1-
18 year extensions, upon consideration of the Director,
19 in consultation with the SRDN Advisory Board.

20 (3) ADDITIONAL EMPLOYEES.—The Director
21 may hire additional employees as necessary to sup-
22 port the operation of the SRDN, including full-time
23 equivalent Federal employees.

24 (4) AVOID DUPLICATION.—The Director shall
25 coordinate with the Chief Statistician of the United

4

States to identify potential areas of overlap between
the SRDN and efforts carried out at, or financially
assisted by, the National Science Foundation, such
as the America's DataHub Consortium, on the date
of enactment of this Act. The Chief Statistician of
the United States shall seek to ensure that the ac-
tivities of the SRDN enhance and complement those
efforts existing on the date of enactment of this Act
in order to avoid duplication and maximize the use
of Federal resources.

(b) RESPONSIBILITIES.—The Director shall direct
the SRDN to carry out the following:

(1) Support governmentwide evidence-building
activities as required under section 312 of title 5,
United States Code, including implementation of
agency multiyear evidence-building plans.

(2) Develop, deploy, maintain, and operate a
SRDN platform for authorized analysts to calculate
statistics on data for evidence-building activity pur-
poses using data assets made available by reporting
entities for approved projects.

(3) Execute a number of approved projects on
the SRDN platform described in paragraph (2) and
make the results publicly available.

1   (4) Ensure an appropriate number of approved

2 projects will re-examine and attempt to fully or par-

3 tially replicate the results of linked data studies in

4 existence on the date of enactment of this Act as

5 proof of concept for the SRDN platform described in

6 paragraph (2).

7   (5) Maintain, in consultation with the Chief

8 Statistician of the United States and other relevant

9 Federal data strategy stakeholders, a public SRDN

10 website with up-to-date information on all approved

11 projects, including their results and documentation

12 of the evidence-building value of each project for pol-

13 icymakers.

14   (6) Consult with the National Artificial Intel-

15 ligence Research Resource Task Force established

16 under section 5106 of the National Artificial Intel-

17 ligence Initiative Act of 2020 (15 U.S.C. 9415) and

18 consider how to integrate the Task Force's rec-

19 ommendations and road map for expanding access to

20 critical artificial intelligence resources and edu-

21 cational tools into the SRDN.

22 (c) PRIVACY REQUIREMENTS.—In developing the

23 SRDN platform under subsection (b)(2), the SRDN—

24   (1) shall ensure the SRDN platform facilitates

25 statistical activities for evidence-building activity

1   purposes while reducing the privacy and security

2   risks by developing, procuring, or adapting tech-

3   nology that, at a minimum, uses the latest cutting-

4   edge technical protection measures that reasonably

5   ensure that—

6   (A) the SRDN platform permits only au-

7   thorized analysts to perform statistical queries

8   necessary to answer approved project questions

9   using the data assets made available by the re-

10   porting entities;

11   (B) no information about the data assets

12   used in the SRDN platform is revealed to any

13   other party, except as incorporated into the

14   final result, which shall be used exclusively for

15   statistical evidence-building purposes and shall

16   not be released in an identifiable form;

17   (C) no individual entity's data or informa-

18   tion is revealed by the SRDN platform to any

19   other party in an identifiable form;

20   (D) the SRDN platform prohibits any

21   other queries by the SRDN or any other party

22   through the SRDN platform; and

23   (E) the SRDN platform minimizes the pri-

24   vacy risks to individual entities whose data has

25   been made available by a reporting entity, in-

1   cluding those that could result from data

2   breaches of any system operated by the report-

3   ing entity; and

4   (2) may—

5   (A) use secure multiparty computation

6   technologies; or

7   (B) utilize technology other than secure

8   multiparty computation technologies if the

9   other technology—

10   (i) fully complies with subparagraphs

11   (A) through (E) of paragraph (1); and

12   (ii) delivers greater or equivalent pri-

13   vacy and security than secure multiparty

14   computation.

15   (d) SOFTWARE REQUIREMENTS.—

16   (1) IN GENERAL.—The Director shall ensure

17   the SRDN develops, deploys, operates, and main-

18   tains the SRDN platform described in subsection

19   (b)(2), along with corresponding Application Pro-

20   gramming Interfaces (APIs), to be used by reporting

21   entities and authorized analysts who will interact

22   with the SRDN platform to conduct the approved

23   projects. The Director—

24   (A) shall direct the SRDN to consult, de-

25   sign, and conduct usability testing of the

1 SRDN platform with relevant Federal and
2 State agencies, Federal coordinating councils,
3 subject matter experts, academia, and others
4 with expertise in technology development, main-
5 tenance, and governance, statistics, privacy, and
6 user-centered design, as the Director deter-
7 mines appropriate;

8   (B) in consultation with the SRDN Advi-
9 sory Board, shall engage in an open public re-
10 view and comment process on the development
11 of the SRDN platform and its governance poli-
12 cies; and

13   (C) shall enter into an agreement for the
14 establishment of the SRDN only with entities
15 based in the United States or in its allied coun-
16 tries.

17 (2) PUBLIC DOMAIN AND OPEN SOURCE SOFT-
18 WARE.—The Director shall ensure the SRDN makes
19 all software developed for the SRDN platform de-
20 scribed in subsection (b)(2) available as public do-
21 main and open source software (as defined in section
22 1552.239–71 of title 48, Code of Federal Regula-
23 tions, or a successor regulation) both during develop-
24 ment and after completion, and endeavor to design
25 the architecture to ensure that appropriate compo-

1 nents can be reused independently. The SRDN shall

2 publicly document the construction, operation, and

3 functionality of the software technologies it develops

4 on the SRDN public-facing website.

5   (3) PROVISION OF SOFTWARE.—The Director

6 shall ensure the SRDN provides software to report-

7 ing entities, at no cost, that the reporting entities

8 can use to connect their own systems to the SRDN

9 platform described in subsection (b)(2). A reporting

10 entity may use the public domain software the

11 SRDN makes available to build their own software

12 that interfaces using the publicly documented API,

13 or use the services of another agency or organization

14 with greater or equivalent privacy and security to

15 help them connect their own systems to the SRDN.

16 (e) DATA QUALITY SERVICE TEAM.—

17   (1) IN GENERAL.—The Director shall direct the

18 SRDN to develop a plan for and operate a data

19 quality service team that is composed of data gov-

20 ernance, information systems, statistics, cybersecu-

21 rity, and disclosure avoidance experts, who will, at

22 no cost to the reporting entity, help reporting enti-

23 ties evaluate their data and prepare it for use with

24 the SRDN platform described in subsection (b)(2) to

25 achieve approved project goals.

1   (2) AGENCY ASSISTANCE.—A reporting entity
2   that is a Federal agency, and a reporting entity that
3   is a State agency that chooses to receive assistance
4   as described in paragraph (1), shall work with the
5   SRDN to develop a plan for preparing its data for
6   use with the SRDN platform described in subsection
7   (b)(2), including adopting all necessary standards.
8   The SRDN shall approve the cost estimates pre-
9   pared by the reporting entity prior to the reporting
10   entity and the SRDN undertaking work that is eligi-
11   ble for reimbursement, according to guidelines estab-
12   lished by the Director. The Director shall approve
13   the plans and enter into reimbursable agreements
14   with reporting entities for expenses included in the
15   approved cost plan. In addition, the reporting entity
16   shall—

17   (A) make its employees responsible for the
18   relevant data available to work with and assist
19   the data quality service team for the extent of
20   the project with reimbursement from the Na-
21   tional Science Foundation for the employees'
22   worked hours;

23   (B) adopt the recommendations of the data
24   quality service team necessary to prepare the

1 reporting entity's data for use with the SRDN

2 platform; and

3 (C) notwithstanding subparagraphs (B),

4 (C), and (D) of subsection (c)(1), provide the

5 data quality service team with access to the rel-

6 evant data.

7 (3) HARDWARE AND SOFTWARE SUPPORT.—

8 The Director shall direct the SRDN to provide hard-

9 ware and software support technology the reporting

10 entities need to stage and prepare data for use with

11 the SRDN platform described in subsection (b)(2).

12 (4) TRAINING MATERIALS AND TOOLS.—The

13 data quality service team, in coordination with the

14 Secure Research Data Network training team de-

15 scribed in subsection (f)(1), shall—

16 (A) produce training materials, docu-

17 mented runnable code, and other tools to help

18 reporting entities prepare their data for use

19 with the SRDN platform described in sub-

20 section (b)(2); and

21 (B) publish such resources on the SRDN

22 public website.

23 (5) DISCLOSURE AVOIDANCE.—The data qual-

24 ity service team shall assist reporting entities as

25 they conduct a disclosure avoidance review to ensure

1 that project results are not released in an identifi-

2 able form. No results shall be released until a disclo-

3 sure avoidance review is conducted.

4 (f) TRAINING.—

5 (1) IN GENERAL.—The Director shall direct the

6 SRDN to develop a plan for and operate a Secure

7 Research Data Network training team that is com-

8 posed of data science, social science, statistics, pri-

9 vacy, disclosure avoidance, and cybersecurity ex-

10 perts, which will, at no cost to the reporting entity,

11 help reporting entities develop capacity to produce

12 evidence using the SRDN platform described in sub-

13 section (b)(2), explain how the SRDN platform

14 works and how it protects data assets, and evaluate

15 the value of the evidence for policymakers and the

16 public.

17 (2) TRAINING CURRICULA.—The Director

18 shall—

19 (A) develop, in consultation with relevant

20 Federal and State agencies, Federal and State

21 coordinating councils, subject matter experts,

22 academia, and others with expertise in user-cen-

23 tered design, privacy preserving technologies,

24 data science, and statistics design, as the Direc-

25 tor determines appropriate, training curricula

1   for agency staff and authorized analysts and

2   make it publicly available; and

3   (B) in consultation with the SRDN Advi-

4   sory Board, engage in an open public review

5   and comment process on the development of the

6   curricula.

7   (3) CURRICULA CONTENT.—The curricula de-

8   veloped under paragraph (2) shall build upon Fed-

9   eral data strategy and Office of Management and

10   Budget evidence-building recommendations and in-

11   clude training in the use of the SRDN platform de-

12   scribed in subsection (b)(2), preparation of data for

13   use with the SRDN platform, testing and evaluation

14   of the usefulness of the training materials and tools,

15   and documentation of the evidence value for policy-

16   makers and the public.

17   (g) PROJECT PROPOSAL.—

18   (1) IN GENERAL.—The Director, in consulta-

19   tion with the SRDN Advisory Board and the Chief

20   Statistician of the United States, shall develop cri-

21   teria and guidelines for analysts to become author-

22   ized analysts and for project proposals to be sub-

23   mitted for consideration.

24   (2) FACILITATING PROPOSALS.—The Director

25   shall facilitate project proposals from research com-

1 munities by soliciting questions and connecting re-
2 search communities with analysts from the appro-
3 priate reporting agencies through methods such as
4 workshops, conferences, or idea labs.

5 (3) PROPOSAL REQUIREMENTS.—The project
6 proposals shall be submitted by authorized analysts
7 and, at a minimum, include the following:

8 (A) Documentation of the relevant data as-
9 sets necessitated by the project, including de-
10 tails of their level of preparedness for analysis
11 with the SRDN platform under subsection
12 (b)(2).

13 (B) Identification of data stewards from
14 the relevant reporting entities who will work
15 with the data quality team to prepare data as-
16 sets for analysis with the SRDN platform under
17 subsection (b)(2).

18 (C) Attestation from the relevant reporting
19 entities and data stewards that they support
20 both the proposed project and the usage of
21 their data assets for the proposed project.

22 (D) Documentation of the evidence-build-
23 ing value the project would provide to policy-
24 makers.

1   (E) Feedback and comments on the pro-
2   posed project collected from nonprofit organiza-
3   tions, Tribal communities and governments, rel-
4   evant State and local governments, community
5   leaders, and other members of the public, as
6   appropriate.

7   (h) ADVISORY BOARD.—

8   (1) IN GENERAL.—The Director, in consulta-
9   tion with the Directorate for Social, Behavioral and
10   Economic Sciences of the National Science Founda-
11   tion, the Directorate for Computer and Information
12   Science and Engineering of the National Science
13   Foundation, and the Chief Statistician of the United
14   States, shall establish a SRDN Advisory Board. The
15   SRDN Advisory Board shall be responsible for re-
16   ceiving, evaluating, advising, and prioritizing a di-
17   verse set of project proposals based on National
18   Science Foundation strategic priorities and estab-
19   lished evidence-building plans and policy-relevant
20   questions required of Federal agencies in accordance
21   with section 312 of title 5, United States Code, from
22   multiple different authorized analysts for the consid-
23   eration of the Director.

24   (2) MEMBERS.—

1   (A) IN GENERAL.—The SRDN Advisory

2   Board shall consist of 15 members from a

3   broad range of specialties and institutions, in-

4   cluding individuals with expertise in producing

5   high-value evidence, data stewardship, cyberse-

6   curity, privacy, data governance, State and

7   Federal program evaluation, State and Federal

8   data infrastructure, State and Federal statistics

9   infrastructure, and social science research.

10   (B) FEDERAL EMPLOYEES AND NON-FED-

11   ERAL EMPLOYEES.—The SRDN Advisory

12   Board shall consist of members who are em-

13   ployed by a Federal agency and members who

14   are not employed by a Federal agency.

15   (C) DIVERSITY.—The SRDN Advisory

16   Board shall have a diverse membership based

17   on gender, race, ethnicity, and geography. One-

18   third of the members of the SRDN Advisory

19   Board shall consist of individuals located in ju-

20   risdictions that participate in the program

21   under section 113 of the National Science

22   Foundation Authorization Act of 1988 (42

23   U.S.C. 1862g).

24   (3) DUTIES.—The SRDN Advisory Board shall

25   consider, at a minimum, the following:

1   (A) The feasibility of the proposed project,

2   including preparedness of necessary data com-

3   ponents, formal support from relevant data

4   stewards and reporting entities, plans and re-

5   sources to implement an adequate data govern-

6   ance plan, and reporting entity technological ca-

7   pabilities.

8   (B) How the proposed project supports es-

9   tablished evidence-building plans and answers

10   policy-relevant questions required of Federal

11   agencies in accordance with section 312 of title

12   5, United States Code, and to what extent the

13   project represents a diverse group of data

14   sources and statistical work in the Federal Gov-

15   ernment or in Federal-State partnerships.

16   (C) Feedback and comments included in

17   the project proposal.

18   (i) REPORTING.—

19   (1) IN GENERAL.—Not later than 3 years after

20   the date of enactment of this Act, the Director, in

21   consultation with the SRDN Advisory Board, shall

22   produce a final report, to be published on the SRDN

23   website and shared with relevant committees of Con-

24   gress, which includes—

1   (A) the technological considerations of the
2   SRDN platform described in subsection (b)(2);

3   (B) recommendations for future SRDN
4   projects;

5   (C) a summary of all the SRDN projects
6   undertaken, including their results, details of
7   the data sources used, and analysis of their dis-
8   parate impacts on subgroups;

9   (D) a description of how project results are
10   relevant to Federal agency evidence-building
11   plans and policy-relevant questions, as required
12   under section 312 of title 5, United States
13   Code;

14   (E) lessons learned by the data quality
15   service team, operated pursuant to subsection
16   (e)(1), from working with reporting entity
17   stakeholders to prepare their data for the
18   SRDN platform described in subsection (b)(2);

19   (F) recommendations for a permanent pro-
20   gram that would be called the Secure Research
21   Data Network, including needs for additional
22   capacity, functionality, and funding related to
23   providing a secure privacy preserving statistical
24   platform; and

1   (G) consideration of relevant recommenda-

2 tions from the Office of Management and

3 Budget Advisory Committee on Data for Evi-

4 dence-Building.

5   (2) GAO EVALUATION.—

6   (A) IN GENERAL.—Upon publication of the

7 report under paragraph (1), the Comptroller

8 General of the United States shall conduct an

9 evaluation of the SRDN pilot program, which

10 shall include—

11   (i) a recommendation for a potential

12   permanent SRDN program;

13   (ii) a technical review of the SRDN

14   pilot program's ability to protect individual

15   identity from disclosure and recommenda-

16   tions for how a future permanent SRDN

17   program should be constructed in order to

18   provide a secure privacy preserving statis-

19   tical platform;

20   (iii) an analysis of the adequacy of al-

21   lotted resources, issues with the solicitation

22   of projects and public comment, and any

23   issues faced in facilitating the collaboration

24   of reporting entities involved in approved

25   projects; and

1   (iv) a review of, and recommendations

2   for, how a permanent SRDN program will

3   comply with relevant privacy statutes.

4   (j) REQUIREMENTS.—The agreement entered into

5 under subsection (a) shall—

6   (1) be competitively awarded;

7   (2) last not more than 5 years;

8   (3) ensure any entity designated to operate the

9   SRDN shall—

10   (A) coordinate with the Statistical Official

11   of the National Science Foundation, as part of

12   the Statistical Official's role as an agent of the

13   National Center for Science and Engineering

14   Statistics and a member of the Interagency

15   Council on Statistical Policy, in accordance with

16   section 314(b) of title 5, United States Code,

17   and section 3504(e)(8) of title 44, United

18   States Code; and

19   (B) comply with applicable requirements

20   provided in section 552a of title 5, United

21   States Code (commonly known as the "Privacy

22   Act of 1974") and subchapter III of chapter 35

23   of title 44, United States Code (commonly

24   known as the "Confidential Information Protec-

1   tion and Statistical Efficiency Act of 2018'');

2   and

3   (4) if practicable, establish the pilot program as

4   a Federally funded research and development center.

5   (k) AUTHORIZATION OF APPROPRIATIONS.—There is

6 authorized to be appropriated to carry out this section

7 $100,000,000.

○