# Calendar No. 744

118TH CONGRESS
2D SESSION

# S. 5109

**[Report No. 118–324]**

To amend section 3520A of title 44, United States Code, to extend the Chief Data Officer Council's sunset and add new authorities for improving Federal agency data governance, including to enable reliable and secure adoption of emerging technologies and artificial intelligence, and for other purposes.

## IN THE SENATE OF THE UNITED STATES

SEPTEMBER 19, 2024

Mr. PETERS (for himself and Mr. YOUNG) introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

DECEMBER 19 (legislative day, DECEMBER 16), 2024

Reported by Mr. PETERS, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

# A BILL

To amend section 3520A of title 44, United States Code, to extend the Chief Data Officer Council's sunset and add new authorities for improving Federal agency data governance, including to enable reliable and secure adoption of emerging technologies and 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.**

4 This Act may be cited as the "Modernizing Data

5 Practices to Improve Government Act".

6 **SEC. 2. AMENDMENTS.**

7 (a) IN GENERAL.—Section 3520A of title 44, United

8 States Code, is amended—

9 (1) by striking subsections (d) and (e);

10 (2) by redesignating subsections (a) through (c)

11 as subsections (b) through (d), respectively;

12 (3) by inserting before subsection (b), as so re-

13 designated, the following:

14 "(a) DEFINITIONS.—In this section:

15 "(1) ARTIFICIAL INTELLIGENCE.—The term

16 'artificial intelligence'—

17 "(A) has the meaning given that term in

18 section 5002 of the National Artificial Intel-

19 ligence Initiative Act of 2020 (15 U.S.C. 9401);

20 and

21 "(B) includes the artificial systems and

22 techniques described in paragraphs (1) through

23 (5) of section 238(g) of the John S. McCain

24 National Defense Authorization Act for Fiscal

1 Year 2019 (Public Law 115–232; 10 U.S.C.

2 4061 note prec.).

3 "(2) DATA GOVERNANCE.—The term 'data gov-

4 ernance'—

5 "(A) means the approach of an agency to

6 managing data during the lifecycle of the data,

7 from acquisition, to use, to disposal; and

8 "(B) includes—

9 "(i) all actions an agency must take

10 and the technology and processes an agen-

11 cy must use to ensure data is secure, pri-

12 vate, accurate, available, and usable; and

13 "(ii) authorities, roles, responsibilities,

14 organizational structures, policies, proce-

15 dures, standards, and resources for the

16 definition, stewardship, production, secu-

17 rity provenance, and use of data.

18 "(3) USE CASE.—The term 'use case' means a

19 description of the ways and circumstances in which

20 a technology is deployed to perform a specific func-

21 tion.";

22 (4) in subsection (c), as so redesignated—

23 (A) by redesignating paragraph (5) as

24 paragraph (6);

1              (B) in paragraph (4), by striking the

2      "and" at the end; and

3              (C) by inserting after paragraph (4) the

4      following:

5      "(5) identify opportunities and procedures to

6    improve data governance to—

7              "(A) ensure the data of agencies are trans-

8         parent, accessible, and of sufficient quality for

9         the intended use of the data; and

10            "(B) support agency heads and their ef-

11         forts to reliably and securely leverage emerging

12         technologies and artificial intelligence, to ensure

13         mission outcomes and improve operational effi-

14         ciency across agencies; and";

15      (5) in subsection (d)(3), as so redesignated—

16              (A) by striking "The Administrator" and

17      inserting the following:

18            "(A) ADMINISTRATOR OF THE OFFICE OF

19      ELECTRONIC GOVERNMENT.—The Adminis-

20      trator"; and

21              (B) by inserting after subparagraph (A),

22      as so designated, the following:

23            "(B) APPOINTED MEMBERS.—The Direc-

24      tor shall appoint a representative from among

1     Chief Artificial Intelligence Officers to serve on

2     the Council.''; and

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

4     ''(e) DATA GOVERNANCE REPORTS.—The Council

5 shall submit to the Director, the Committee on Homeland

6 Security and Governmental Affairs of the Senate, and the

7 Committee on Oversight and Accountability of the House

8 of Representatives—

9          ''(1) a biennial report on the work of the Coun-

10     cil, including any updates to the recommendations

11     provided in the report required under paragraph (2)

12     of this subsection;

13          ''(2) not later than 1 year after the date of en-

14     actment of this subsection, a report with rec-

15     ommendations and best practices for agencies on de-

16     veloping datasets, data governance policies, and in-

17     frastructure to enable adoption and use of emerging

18     technologies and artificial intelligence, including for

19     use in training, testing, and operation of artificial

20     intelligence within agencies that includes—

21          ''(A) an assessment of key data governance

22          and sharing challenges preventing adoption of

23          emerging technologies and artificial intelligence

24          across agencies;

1            ~~"(B) an assessment of ways to strengthen~~

2    ~~and clarify roles and responsibilities related to~~

3    ~~data governance between senior agency leaders,~~

4    ~~including the Chief Information Officer, the~~

5    ~~Chief Information Security Officer, the Chief~~

6    ~~Financial Officer, the Chief Privacy Officer, the~~

7    ~~Chief Artificial Intelligence Officer, and the~~

8    ~~Chief Acquisition Officer;~~

9            ~~"(C) recommendations for data governance~~

10    ~~best practices, including—~~

11                ~~"(i) best practices to ensure data used~~

12       ~~for testing, training, and operation of arti-~~

13       ~~ficial intelligence is reliable, relevant to the~~

14       ~~task, representative of the impacted indi-~~

15       ~~viduals of the artificial intelligence system,~~

16       ~~transparent, high quality, and protects the~~

17       ~~privacy and personally identifiable informa-~~

18       ~~tion of individuals; and~~

19                ~~"(ii) defining key data standards, in-~~

20       ~~cluding data quality;~~

21            ~~"(D) a prioritization of agency artificial in-~~

22    ~~telligence use cases that address a critical need~~

23    ~~across the Federal Government, for which new~~

24    ~~or shared datasets are needed to support adop-~~

25    ~~tion;~~

1                         "(E) identification of existing data avail-

2 able to 1 or more agencies that would benefit

3 other such agencies if the data were shared or

4 made available;

5                         "(F) recommendations for ways to address

6 increases in risks, including through training of

7 relevant agency employees, associated with—

8                                 "(i) the potential for misuse of, mis-

9 management of, and unauthorized access

10 to data and personally identifiable informa-

11 tion of individuals when an agency

12 leverages data for use in artificial intel-

13 ligence, including identification of software

14 or hardware solutions, technical processes,

15 techniques, or other technological means of

16 mitigating privacy risks arising from data

17 processing; or

18                                 "(ii) increasing access to the data of

19 the agency for the purposes of supporting

20 a cross-Government mission;

21                         "(G) recommendations for data ownership

22 and retention policies and procedures, including

23 policies and procedures to ensure that agency

24 contracts to procure artificial intelligence in-

1 clude any necessary clauses to ensure that the

2 Federal Government—

3         "(i) retains sufficient rights to data,

4 and any modifications to that data;

5         "(ii) avoids vendor lock-in and retains

6 the ability to facilitate or conduct the con-

7 tinued design, development, testing, and

8 operation of artificial intelligence by the

9 Federal Government; and

10         "(iii) can conduct pre-procurement re-

11 views of artificial intelligence to assess po-

12 tential error issues;

13     "(II) criteria agencies should consider

14 when using data to train artificial intelligence

15 used by agencies, including recommendations

16 for—

17         "(i) ways to increase transparency of

18 training data for the public and for agency

19 employees using the relevant artificial in-

20 telligence system software;

21         "(ii) processes and procedures to ana-

22 lyze and test training data for potential

23 risks;

1        ~~"(iii) criteria for determining how to~~

2       ~~preserve the interests of the Federal Gov-~~

3       ~~ernment; and~~

4        ~~"(iv) performance evaluation metrics~~

5       ~~to ensure that an artificial intelligence sys-~~

6       ~~tem performs as intended;~~

7      ~~"(I) recommendations for ways to expand~~

8    ~~public access to Federal data assets in a ma-~~

9    ~~chine-readable format while also taking into ac-~~

10    ~~count security considerations, including the risk~~

11    ~~that, while information in an individual data~~

12    ~~asset may not pose a security risk in isolation,~~

13    ~~such information could pose a security risk~~

14    ~~when combined with other data assets;~~

15      ~~"(J) recommendations for defining, gener-~~

16    ~~ating, using, and ensuring the privacy and secu-~~

17    ~~rity of synthetic data in the Federal Govern-~~

18    ~~ment, including—~~

19        ~~"(i) a formalized definition of syn-~~

20       ~~thetic data generation for government use,~~

21       ~~including specifying definitions for data~~

22       ~~which is fully or partially synthetic;~~

23        ~~"(ii) guidance for agencies on best~~

24       ~~practices around synthetic data generation~~

1 and use, including tools or techniques

2 agencies should take to—

3 "(I) mitigate privacy and security

4 risks;

5 "(II) ensure agencies practice ap-

6 propriate processes to ensure the ac-

7 curacy and quality of synthetic data

8 and the appropriateness for the in-

9 tended use of the synthetic data by

10 the agency;

11 "(III) adopt the appropriate

12 techniques to validate synthetic data,

13 including data profiling, data consist-

14 ency, data integrity, and data docu-

15 mentation; and

16 "(IV) communicate opportunities,

17 risks, and limitations of synthetic data

18 internally to agencies and externally

19 to the public;

20 "(iii) opportunities across the Federal

21 Government and within specific agencies

22 for embracing or avoiding the use of syn-

23 thetic data; and

24 "(iv) opportunities for the Federal

25 Government to partner with public and

1 private sector entities in the development

2 and sharing of data, including synthetic

3 data, to help in the adoption of emerging

4 technologies and artificial intelligence; and

5 "(K) for subparagraphs (A) through (J),

6 an indication of how agencies can incorporate

7 the respective recommendations and best prac-

8 tices into existing agency processes and statu-

9 tory requirements.

10 "(f) DATA GOVERNANCE GUIDANCE.—The Director,

11 upon receipt of a report required under subsection (e),

12 may issue guidance to agencies with respect to the imple-

13 mentation of the recommendations of the report.

14 "(g) DATA MANAGEMENT REPORT.—Not later than

15 270 days after the date of enactment of this subsection,

16 the Director, in consultation with the Council, shall submit

17 to Congress an annual report with recommendations to

18 clarify and enhance the roles of the Chief Data Officers

19 across the Federal Government relating to data govern-

20 ance for artificial intelligence, including—

21 "(1) an inventory of all Chief Data Officers of

22 agencies, including, with respect to each agency—

23 "(A) any additional roles or titles the Chief

24 Data Officer holds at the agency;

1 "(B) the organizational structure of the

2 agency, including any official to whom the Chief

3 Data Officer reports to within the agency; and

4 "(C) the respective roles, responsibilities,

5 and statutory authorities relating to data and

6 artificial intelligence of the Chief Data Officer

7 at the agency;

8 "(2) an identification of skills and resources

9 needed by Chief Data Officers and their staffs to

10 support artificial intelligence system adoption at

11 agencies; and

12 "(3) recommendations for suggested collabora-

13 tion opportunities between the Council and other

14 interagency councils to improve data governance best

15 practices across government, including—

16 "(A) the Chief Financial Officers Council;

17 "(B) the Chief Human Capital Officers

18 Council;

19 "(C) the Chief Acquisition Officers Coun-

20 cil;

21 "(D) the Federal Privacy Council;

22 "(E) the Chief Information Officers Coun-

23 cil; and

24 "(F) other key groups of the Federal Gov-

25 ernment.

1 "(h) EVALUATION.—Not later than 2 years after the

2 date of enactment of this subsection, and not less fre-

3 quently than once every 2 years thereafter, the Comp-

4 troller General shall submit to Congress a report on—

5 "(1) whether the duties of the Council improved

6 the use of evidence and program evaluation in the

7 Federal Government; and

8 "(2) any barriers or challenges preventing the

9 Council from accomplishing the objectives under this

10 section or the amendments made by the Modernizing

11 Data Practices to Improve Government Act.".

12 (b) SUNSET.—Beginning on the date that is 7 years

13 after the date of enactment of this Act, the amendments

14 made by this Act shall have no force or effect.

15 **SECTION 1. SHORT TITLE.**

16 This Act may be cited as the "Modernizing Data Prac-

17 tices to Improve Government Act".

18 **SEC. 2. AMENDMENTS.**

19 Section 3520A of title 44, United States Code, is

20 amended—

21 (1) by striking subsections (d) and (e);

22 (2) by redesignating subsections (a) through (c)

23 as subsections (b) through (d), respectively;

24 (3) by inserting before subsection (b), as so redes-

25 ignated, the following:

1     *"(a) DEFINITIONS.—In this section:*

2        *"(1) ARTIFICIAL INTELLIGENCE.—The term 'ar-*

3    *tificial intelligence'—*

4           *"(A) has the meaning given that term in*

5      *section 5002 of the National Artificial Intel-*

6      *ligence Initiative Act of 2020 (15 U.S.C. 9401);*

7      *and*

8           *"(B) includes the artificial systems and*

9      *techniques described in paragraphs (1) through*

10     *(5) of section 238(g) of the John S. McCain Na-*

11     *tional Defense Authorization Act for Fiscal Year*

12     *2019 (Public Law 115–232; 10 U.S.C. 4061 note*

13     *prec.).*

14        *"(2) DATA GOVERNANCE.—The term 'data gov-*

15    *ernance'—*

16           *"(A) means the approach of an agency to*

17      *managing data during the lifecycle of the data;*

18      *and*

19           *"(B) includes—*

20               *"(i) agency responsibilities and re-*

21        *quirements to ensure data is secure, private,*

22        *accurate, available, and usable; and*

23               *"(ii) authorities, roles, responsibilities,*

24        *organizational structures, policies, proce-*

25        *dures, standards, and resources for the defi-*

1       *nition, stewardship, production, security*

2       *provenance, dissemination, and use of*

3       *data.";*

4       *(4) in subsection (c), as so redesignated—*

5       *(A) by redesignating paragraph (5) as*

6       *paragraph (6);*

7       *(B) in paragraph (4), by striking the "and"*

8       *at the end; and*

9       *(C) by inserting after paragraph (4) the fol-*

10      *lowing:*

11      *"(5) identify opportunities and procedures to*

12      *improve data governance to—*

13      *"(A) ensure that publicly available data of*

14      *agencies are transparent, accessible, and of suffi-*

15      *cient quality for the intended use of the data;*

16      *and*

17      *"(B) support agency heads and their efforts*

18      *to reliably and securely leverage emerging tech-*

19      *nologies and artificial intelligence, including to*

20      *ensure mission outcomes and improve oper-*

21      *ational efficiency across agencies; and";*

22      *(5) in subsection (d)(4), as so redesignated, by*

23      *striking "and Evaluation Officers" through "member*

24      *of the Council" and inserting ", a representative from*

25      *all Chief Artificial Intelligence Officers, and a rep-*

1 *resentative for all Chief Privacy Officers, and such*

2 *representatives shall serve as non-voting ex officio*

3 *members of the Council''; and*

4     *(6) by adding at the end the following:*

5 *''(e) COUNCIL STAFF.—The Council may enter into an*

6 *interagency agreement with the Administrator of General*

7 *Services for shared services for the purpose of staffing the*

8 *Council.*

9 *''(f) DATA GOVERNANCE REPORTS.—The Council shall*

10 *submit to the Director, the Committee on Homeland Secu-*

11 *rity and Governmental Affairs of the Senate, and the Com-*

12 *mittee on Oversight and Accountability of the House of Rep-*

13 *resentatives—*

14     *''(1) a biennial report on the work of the Coun-*

15     *cil, including any updates to the recommendations*

16     *provided in the report required under paragraph (2)*

17     *of this subsection and an explanation of the work to*

18     *ensure progress on each of the objectives in subsection*

19     *(c);*

20     *''(2) not later than 1 year after the date of enact-*

21     *ment of this subsection, a report with recommenda-*

22     *tions and best practices for agencies (taking into ac-*

23     *count that the recommendations may not apply to all*

24     *agencies or to all agencies equally, based on the*

25     *unique missions and capabilities of each agency) for*

1     *developing datasets, data governance policies, and in-*

2     *frastructure, including to enable adoption and use of*

3     *emerging technologies and artificial intelligence, such*

4     *as for use in training, testing, and operation of arti-*

5     *ficial intelligence within agencies, which shall in-*

6     *clude—*

7     *"(A) an assessment of key data governance*

8     *and sharing challenges, including those that pre-*

9     *vent adoption of emerging technologies and arti-*

10     *ficial intelligence across agencies;*

11     *"(B) an assessment, as applicable, of ways*

12     *to strengthen and clarify the roles and respon-*

13     *sibilities relating to data governance of agency*

14     *officials, in addition to the Chief Data Officer;*

15     *"(C) recommendations for data governance*

16     *best practices, including—*

17     *"(i) best practices to ensure data used*

18     *is reliable, fit for purpose, transparent, high*

19     *quality, protects privacy and personally*

20     *identifiable information, and protects con-*

21     *fidentiality of individuals and other sen-*

22     *sitive information, including data used for*

23     *testing, training, and operation of artificial*

24     *intelligence; and*

1                          *"(ii) defining key data standards, in-*

2                      *cluding data quality;*

3                   *"(D) a prioritization of existing and future*

4               *agency artificial intelligence use cases that ad-*

5               *dress a critical need across the Federal Govern-*

6               *ment, for which new or shared datasets are need-*

7               *ed to support adoption;*

8                   *"(E) identification of existing data avail-*

9               *able to 1 or more agencies that would benefit*

10             *other such agencies if the data were shared or*

11             *made available;*

12             *"(F) recommendations for ways Chief Data*

13            *Officers should work with relevant agency offi-*

14            *cials to assist in addressing increases in risks as-*

15            *sociated with—*

16                  *"(i) the potential for misuse of, mis-*

17                *management of, and unauthorized access to*

18                *data and personally identifiable informa-*

19                *tion of individuals when an agency*

20                *leverages data for use in artificial intel-*

21                *ligence, including identification of software*

22                *or hardware solutions, technical processes,*

23                *techniques, or other technological means of*

24                *mitigating privacy risks arising from data*

25                *processing; and*

1                        *"(ii) increasing access to the data of*

2             *the agency for the purposes of supporting a*

3             *cross-Government mission;*

4         *"(G) recommendations for data ownership*

5         *and retention policies and procedures, including*

6         *how Chief Data Officers can support Chief Pro-*

7         *curement Officers and relevant officials in ensur-*

8         *ing that agency contracts to procure emerging*

9         *technology or artificial intelligence include any*

10        *necessary clauses to ensure that the Federal Gov-*

11        *ernment—*

12                 *"(i) retains sufficient rights to data,*

13             *and any modifications to that data;*

14                 *"(ii) avoids vendor lock-in and retains*

15             *the ability to facilitate or conduct the con-*

16             *tinued design, development, testing, and op-*

17             *eration of data by the Federal Government;*

18                 *"(iii) can conduct pre-procurement re-*

19             *views of artificial intelligence to assess po-*

20             *tential error issues; and*

21                 *"(iv) maximizes the use of and access*

22             *to open data, open source software, and*

23             *public access research to improve trans-*

24             *parency, knowledge sharing, and interoper-*

25             *ability;*

1          *"(H) criteria agencies should consider when*

2     *using data to train artificial intelligence used by*

3     *agencies, including recommendations for—*

4               *"(i) ways to increase transparency of*

5          *training data for the public and for agency*

6          *employees using the relevant artificial intel-*

7          *ligence system software; and*

8               *"(ii) processes and procedures to ana-*

9          *lyze and test training data for potential*

10         *risks;*

11    *"(I) recommendations for ways to expand*

12    *public access to Federal data assets in a ma-*

13    *chine-readable format while also taking into ac-*

14    *count the criteria listed under section*

15    *3511(a)(2)(E);*

16    *"(J) recommendations for defining, gener-*

17    *ating, using, and ensuring the privacy and secu-*

18    *rity of synthetic data in the Federal Govern-*

19    *ment, including—*

20              *"(i) a formalized definition of syn-*

21         *thetic data generation for government use,*

22         *including specifying definitions for data*

23         *which is fully or partially synthetic;*

1          "(ii) best practices relating to synthetic

2     data generation and use, including tools or

3     techniques agencies should take to—

4               "(I) mitigate privacy and secu-

5          rity risks;

6               "(II) ensure the accuracy and

7          quality of synthetic data and the ap-

8          propriateness for the intended use of

9          the synthetic data by the agency;

10              "(III) adopt the appropriate tech-

11         niques to validate synthetic data, in-

12         cluding data profiling, data consist-

13         ency, data integrity, and data docu-

14         mentation; and

15              "(IV) communicate opportunities,

16         risks, and limitations of synthetic data

17         internally to relevant Federal employ-

18         ees and externally to the public;

19         "(iii) opportunities across the Federal

20    Government and within specific agencies for

21    using synthetic data;

22         "(iv) circumstances when agencies

23    should not use synthetic data; and

24         "(v) opportunities for the Federal Gov-

25    ernment to partner with public and private

1        *sector entities in the development and shar-*

2        *ing of data, including synthetic data, in-*

3        *cluding to help in the adoption of emerging*

4        *technologies and artificial intelligence, while*

5        *also taking into account the criteria under*

6        *section 3511(a)(2)(E); and*

7        *"(K) for subparagraphs (A) through (J), an*

8        *indication of how agencies can incorporate the*

9        *respective recommendations and best practices*

10       *into existing agency processes and statutory re-*

11       *quirements.*

12   *"(g) DATA GOVERNANCE GUIDANCE.—The Director,*

13   *upon receipt of a report required under subsection (f), may*

14   *issue guidance to agencies with respect to the implementa-*

15   *tion of the recommendations of the report.*

16   *"(h) DATA MANAGEMENT REPORT.—Not later than*

17   *270 days after the date of enactment of this subsection, the*

18   *Director, in consultation with the Council, shall—*

19       *"(1) submit to Congress and make available on*

20       *a public website a report with recommendations to*

21       *clarify and enhance the roles of the Chief Data Offi-*

22       *cers across the Federal Government relating to data*

23       *governance, including for artificial intelligence and*

24       *including recommendations for suggested collabora-*

25       *tion opportunities between the Council, other inter-*

1 *agency councils, and additional Federal Government*

2 *entities the Council determines relevant; and*

3 *"(2) make available on a public website, not less*

4 *frequently than annually—*

5 *"(A) a list of all Chief Data Officers of*

6 *agencies, including, with respect to each Chief*

7 *Data Officer—*

8 *"(i) any additional roles or titles the*

9 *Chief Data Officer holds at the agency; and*

10 *"(ii) the respective roles, responsibil-*

11 *ities, and statutory authorities of the Chief*

12 *Data Officer at the agency relating to data*

13 *and artificial intelligence; and*

14 *"(B) an identification of skills and re-*

15 *sources needed by Chief Data Officers and their*

16 *staffs, including to support artificial intelligence*

17 *system adoption at agencies.*

18 *"(i) EVALUATION.—Not later than 2 years after the*

19 *date of enactment of this subsection, and not less frequently*

20 *than once every 2 years thereafter, the Comptroller General*

21 *shall submit to Congress a report on—*

22 *"(1) whether the duties of the Council improved*

23 *the use of evidence and data in the Federal Govern-*

24 *ment; and*

1    *"(2) any barriers or challenges preventing the*
2    *Council from accomplishing the objectives under this*
3    *section or the amendments made by the Modernizing*
4    *Data Practices to Improve Government Act.*

5    *"(j) RULE OF CONSTRUCTION.—Nothing in this sec-*
6    *tion shall be construed to require an agency to implement*
7    *any recommendation developed pursuant to subsection (f)*
8    *or (h).*

9    *"(k) SUNSET.—Beginning on the date that is 7 years*
10   *after the date of enactment of this subsection, this section*
11   *shall have no force or effect.".*

12   **SEC. 3. NO ADDITIONAL FUNDS.**

13   *No additional funds are authorized to be appropriated*
14   *for the purpose of carrying out this Act.*

118TH CONGRESS
2D SESSION

**S. 5109**

[Report No. 118-324]

# A BILL

To amend section 3520A of title 44, United States Code, to extend the Chief Data Officer Council's sunset and add new authorities for improving Federal agency data governance, including to enable reliable and secure adoption of emerging technologies and artificial intelligence, and for other purposes.

DECEMBER 19 (legislative day, DECEMBER 16), 2024

Reported with an amendment