

117TH CONGRESS  
1ST SESSION

# H. R. 3747

To provide for a pilot project for a nationwide network of secure computing enclaves for federally funded research in universities, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 8, 2021

Mr. BABIN introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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## A BILL

To provide for a pilot project for a nationwide network of secure computing enclaves for federally funded research in universities, 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 “Securing American Re-  
5 search from Cyber Theft Act”.

6 **SEC. 2. PURPOSE.**

7 The purposes of this Act are to help institutions of  
8 higher education protect federally funded research from  
9 cyber theft and interference by—

1           (1) directing the Networking and Information  
2           Technology Research and Development Program to  
3           provide for support and guidance on improving the  
4           security of academic computing and networking sys-  
5           tems that process, store, and transmit federally  
6           funded research; and

7           (2) establishing a pilot program to support re-  
8           gional secure computing enclaves for academia to  
9           provide researchers with secure data storage and  
10          adequately protect Federal Government data.

11 **SEC. 3. NETWORKING AND INFORMATION TECHNOLOGY**  
12 **RESEARCH AND DEVELOPMENT UPDATE.**

13          Section 101(a)(1) of the High-Performance Com-  
14          puting Act of 1991 (15 U.S.C. 5511) is amended—

15               (1) by inserting after subparagraph (I) the fol-  
16          lowing:

17                       “(J) provide for improving the security, re-  
18                       liability, and resiliency of computing and net-  
19                       working systems used by institutions of higher  
20                       education and other nonprofit research institu-  
21                       tions for the processing, storage and trans-  
22                       mission of sensitive federally funded research  
23                       and associated data;”;

24               (2) by redesignating subparagraphs (J) through  
25          (O) as subparagraphs (K) through (P), respectively.

1 **SEC. 4. COMPUTING ENCLAVE PILOT PROGRAM.**

2 (a) IN GENERAL.—The Director of the National  
3 Science Foundation, in consultation with the Director of  
4 the National Institute of Standards and Technology and  
5 the Secretary of Energy, shall award grants to establish  
6 a pilot program to ensure the security of federally-sup-  
7 ported research data and to assist regional institutions of  
8 higher education and their researchers in compliance with  
9 regulations regarding the safeguarding of sensitive infor-  
10 mation and other relevant regulations and Federal guide-  
11 lines.

12 (b) STRUCTURE.—In carrying out the pilot program  
13 established pursuant to subsection (a), the Director shall  
14 select three institutions of higher education from among  
15 institutions classified under the Indiana University Center  
16 for Postsecondary Research Carnegie Classification as a  
17 doctorate-granting university with a very high level of re-  
18 search activity, and with a history of working with secure  
19 information for the development, installation, mainte-  
20 nance, or sustainment of secure computing enclaves.

21 (c) REGIONALIZATION.—

22 (1) IN GENERAL.—In selecting universities pur-  
23 suant to subsection (b), the Director shall give pref-  
24 erence to institutions of higher education with the  
25 capability of serving other regional universities.

1           (2) GEOGRAPHIC DISPERSAL.—The enclaves  
2           should be geographically dispersed to better meet the  
3           needs of regional interests.

4           (d) PROGRAM ELEMENTS.—The Director shall work  
5           with institutions of higher education selected pursuant to  
6           subsection (b) to—

7           (1) develop an approved design blueprint for  
8           compliance with Federal data protection protocols;

9           (2) develop a comprehensive and confidential  
10          list, or a bill of materials, of each binary component  
11          of the software, firmware, or product that is re-  
12          quired to deploy additional secure computing en-  
13          claves;

14          (3) develop templates for all policies and proce-  
15          dures required to operate the secure computing en-  
16          clave in a research setting;

17          (4) develop a system security plan template;  
18          and

19          (5) develop a process for managing a plan of  
20          action and milestones for the secure computing en-  
21          clave.

22          (e) DURATION.—Subject to other availability of ap-  
23          propriations, the pilot program established pursuant to  
24          subsection (a) shall operate for not less than 3 years.

25          (f) REPORT.—

1           (1) IN GENERAL.—The Director of the National  
2       Science Foundation shall report to Congress not  
3       later than 6 months after the completion of the pilot  
4       program under subsection (a).

5           (2) CONTENTS.—The report required under  
6       paragraph (1) shall include—

7           (A) an assessment of the pilot program  
8       under subsection (a), including an assessment  
9       of the security benefits provided by such secure  
10      computing enclaves;

11          (B) recommendations related to the value  
12      of expanding the network of secure computing  
13      enclaves; and

14          (C) recommendations on the efficacy of the  
15      use of secure computing enclaves by other Fed-  
16      eral agencies in a broader effort to expand se-  
17      curity of Federal research.

18      (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
19      authorized to be appropriated to the Director,  
20      \$38,000,000 for fiscal years 2022 through 2024, to carry  
21      out the activities outlined in this section.

22      **SEC. 5. DEFINITIONS.**

23      In this Act:

24          (1) DIRECTOR.—The term “Director” means  
25      the Director of the National Science Foundation.

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

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