

106<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 2086

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IN THE SENATE OF THE UNITED STATES

FEBRUARY 22, 2000

Received; read twice and referred to the Committee on Commerce, Science,  
and Transportation

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## AN ACT

To authorize funding for networking and information technology research and development for fiscal years 2000 through 2004, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Networking and Infor-  
3 mation Technology Research and Development Act”.

4 **SEC. 2. FINDINGS.**

5 The Congress makes the following findings:

6 (1) Information technology will continue to  
7 change the way Americans live, learn, and work. The  
8 information revolution will improve the workplace  
9 and the quality and accessibility of health care and  
10 education and make government more responsible  
11 and accessible. It is important that access to infor-  
12 mation technology be available to all citizens, includ-  
13 ing elderly Americans and Americans with disabili-  
14 ties.

15 (2) Information technology is an imperative en-  
16 abling technology that contributes to scientific dis-  
17 ciplines. Major advances in biomedical research, pub-  
18 lic safety, engineering, and other critical areas de-  
19 pend on further advances in computing and commu-  
20 nications.

21 (3) The United States is the undisputed global  
22 leader in information technology.

23 (4) Information technology is recognized as a  
24 catalyst for economic growth and prosperity.

25 (5) Information technology represents one of  
26 the fastest growing sectors of the United States

1 economy, with electronic commerce alone projected  
2 to become a trillion-dollar business by 2005.

3 (6) Businesses producing computers, semi-  
4 conductors, software, and communications equip-  
5 ment account for one-third of the total growth in the  
6 United States economy since 1992.

7 (7) According to the United States Census Bu-  
8 reau, between 1993 and 1997, the information tech-  
9 nology sector grew an average of 12.3 percent per  
10 year.

11 (8) Fundamental research in information tech-  
12 nology has enabled the information revolution.

13 (9) Fundamental research in information tech-  
14 nology has contributed to the creation of new indus-  
15 tries and new, high-paying jobs.

16 (10) Our Nation's well-being will depend on the  
17 understanding, arising from fundamental research,  
18 of the social and economic benefits and problems  
19 arising from the increasing pace of information tech-  
20 nology transformations.

21 (11) Scientific and engineering research and the  
22 availability of a skilled workforce are critical to con-  
23 tinued economic growth driven by information tech-  
24 nology.

1           (12) In 1997, private industry provided most of  
2 the funding for research and development in the in-  
3 formation technology sector. The information tech-  
4 nology sector now receives, in absolute terms, one-  
5 third of all corporate spending on research and de-  
6 velopment in the United States economy.

7           (13) The private sector tends to focus its  
8 spending on short-term, applied research.

9           (14) The Federal Government is uniquely posi-  
10 tioned to support long-term fundamental research.

11           (15) Federal applied research in information  
12 technology has grown at almost twice the rate of  
13 Federal basic research since 1986.

14           (16) Federal science and engineering programs  
15 must increase their emphasis on long-term, high-risk  
16 research.

17           (17) Current Federal programs and support for  
18 fundamental research in information technology is  
19 inadequate if we are to maintain the Nation's global  
20 leadership in information technology.

21 **SEC. 3. AUTHORIZATION OF APPROPRIATIONS.**

22           (a) NATIONAL SCIENCE FOUNDATION.—Section  
23 201(b) of the High-Performance Computing Act of 1991  
24 (15 U.S.C. 5521(b)) is amended—

1           (1) by striking “From sums otherwise author-  
2           ized to be appropriated, there” and inserting  
3           “There”;

4           (2) by striking “1995; and” and inserting  
5           “1995;”; and

6           (3) by striking the period at the end and insert-  
7           ing “; \$520,000,000 for fiscal year 2000;  
8           \$645,000,000 for fiscal year 2001; \$672,000,000 for  
9           fiscal year 2002; \$736,000,000 for fiscal year 2003;  
10          and \$771,000,000 for fiscal year 2004. Amounts au-  
11          thorized under this subsection shall be the total  
12          amounts authorized to the National Science Founda-  
13          tion for a fiscal year for the Program, and shall not  
14          be in addition to amounts previously authorized by  
15          law for the purposes of the Program.”.

16          (b) NATIONAL AERONAUTICS AND SPACE ADMINIS-  
17          TRATION.—Section 202(b) of the High-Performance Com-  
18          puting Act of 1991 (15 U.S.C. 5522(b)) is amended—

19               (1) by striking “From sums otherwise author-  
20               ized to be appropriated, there” and inserting  
21               “There”;

22               (2) by striking “1995; and” and inserting  
23               “1995;”; and

24               (3) by striking the period at the end and insert-  
25               ing “; \$164,400,000 for fiscal year 2000;

1       \$201,000,000 for fiscal year 2001; \$208,000,000 for  
2       fiscal year 2002; \$224,000,000 for fiscal year 2003;  
3       and \$231,000,000 for fiscal year 2004.”.

4       (c) DEPARTMENT OF ENERGY.—Section 203(e)(1) of  
5       the High-Performance Computing Act of 1991 (15 U.S.C.  
6       5523(e)(1)) is amended—

7             (1) by striking “1995; and” and inserting  
8       “1995;”; and

9             (2) by striking the period at the end and insert-  
10       ing “; \$120,000,000 for fiscal year 2000;  
11       \$108,600,000 for fiscal year 2001; \$112,300,000 for  
12       fiscal year 2002; \$131,100,000 for fiscal year 2003;  
13       and \$135,000,000 for fiscal year 2004.”.

14       (d) NATIONAL INSTITUTE OF STANDARDS AND  
15       TECHNOLOGY.—(1) Section 204(d)(1) of the High-Per-  
16       formance Computing Act of 1991 (15 U.S.C. 5524(d)(1))  
17       is amended—

18             (A) by striking “1995; and” and inserting  
19       “1995;”; and

20             (B) by striking “1996; and” and inserting  
21       “1996; \$9,000,000 for fiscal year 2000; \$9,500,000  
22       for fiscal year 2001; \$10,500,000 for fiscal year  
23       2002; \$16,000,000 for fiscal year 2003; and  
24       \$17,000,000 for fiscal year 2004; and”.

1           (2) Section 204(d) of the High-Performance Com-  
2     puting Act of 1991 (15 U.S.C. 5524(d)) is amended by  
3     striking “From sums otherwise authorized to be appro-  
4     priated, there” and inserting “There”.

5           (e) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-  
6     ISTRATION.—Section 204(d)(2) of the High-Performance  
7     Computing Act of 1991 (15 U.S.C. 5524(d)(2)) is  
8     amended—

9           (1) by striking “1995; and” and inserting  
10          “1995;”; and

11          (2) by striking the period at the end and insert-  
12          ing “; \$13,500,000 for fiscal year 2000;  
13          \$13,900,000 for fiscal year 2001; \$14,300,000 for  
14          fiscal year 2002; \$14,800,000 for fiscal year 2003;  
15          and \$15,200,000 for fiscal year 2004.”.

16          (f) ENVIRONMENTAL PROTECTION AGENCY.—Sec-  
17     tion 205(b) of the High-Performance Computing Act of  
18     1991 (15 U.S.C. 5525(b)) is amended—

19          (1) by striking “From sums otherwise author-  
20          ized to be appropriated, there” and inserting  
21          “There”;

22          (2) by striking “1995; and” and inserting  
23          “1995;”; and

24          (3) by striking the period at the end and insert-  
25          ing “; \$4,200,000 for fiscal year 2000; \$4,300,000

1 for fiscal year 2001; \$4,500,000 for fiscal year  
2 2002; \$4,600,000 for fiscal year 2003; and  
3 \$4,700,000 for fiscal year 2004.”.

4 (g) NATIONAL INSTITUTES OF HEALTH.—Title II of  
5 the High-Performance Computing Act of 1991 (15 U.S.C.  
6 5521 et seq.) is amended by inserting after section 205  
7 the following new section:

8 **“SEC. 205A. NATIONAL INSTITUTES OF HEALTH ACTIVITIES.**

9 “(a) GENERAL RESPONSIBILITIES.—As part of the  
10 Program described in title I, the National Institutes of  
11 Health shall conduct research directed toward the ad-  
12 vancement and dissemination of computational techniques  
13 and software tools in support of its mission of biomedical  
14 and behavioral research.

15 “(b) AUTHORIZATION OF APPROPRIATIONS.—There  
16 are authorized to be appropriated to the Secretary of  
17 Health and Human Services for the purposes of the Pro-  
18 gram \$223,000,000 for fiscal year 2000, \$233,000,000  
19 for fiscal year 2001, \$242,000,000 for fiscal year 2002,  
20 \$250,000,000 for fiscal year 2003, and \$250,000,000 for  
21 fiscal year 2004.”.

22 (h) AUTHORIZATION OF APPROPRIATIONS.—

23 (1) NATIONAL SCIENCE FOUNDATION.—Not-  
24 withstanding the amendment made by subsection  
25 (a)(3) of this section, the total amount authorized



1 for the National Science Foundation under section  
2 201(b) of the High-Performance Computing Act of  
3 1991 shall be \$580,000,000 for fiscal year 2000;  
4 \$699,300,000 for fiscal year 2001; \$728,150,000 for  
5 fiscal year 2002; \$801,550,000 for fiscal year 2003;  
6 and \$838,500,000 for fiscal year 2004.

7 (2) DEPARTMENT OF ENERGY.—Notwith-  
8 standing the amendment made by subsection (c)(2)  
9 of this section, the total amount authorized for the  
10 Department of Energy under section 203(e)(1) of  
11 the High-Performance Computing Act of 1991 shall  
12 be \$60,000,000 for fiscal year 2000; \$54,300,000  
13 for fiscal year 2001; \$56,150,000 for fiscal year  
14 2002; \$65,550,000 for fiscal year 2003; and  
15 \$67,500,000 for fiscal year 2004.

16 **SEC. 4. NETWORKING AND INFORMATION TECHNOLOGY**  
17 **RESEARCH AND DEVELOPMENT.**

18 (a) NATIONAL SCIENCE FOUNDATION.—Section 201  
19 of the High-Performance Computing Act of 1991 (15  
20 U.S.C. 5521) is amended by adding at the end the fol-  
21 lowing new subsections:

22 “(c) NETWORKING AND INFORMATION TECHNOLOGY  
23 RESEARCH AND DEVELOPMENT.—(1) Of the amounts au-  
24 thorized under subsection (b), \$350,000,000 for fiscal  
25 year 2000; \$421,000,000 for fiscal year 2001;

1 \$442,000,000 for fiscal year 2002; \$486,000,000 for fis-  
2 cal year 2003; and \$515,000,000 for fiscal year 2004 shall  
3 be available for grants for long-term basic research on net-  
4 working and information technology, with priority given  
5 to research that helps address issues related to high end  
6 computing and software; network stability, fragility, reli-  
7 ability, security (including privacy and counterinitiatives),  
8 and scalability; and the social and economic consequences  
9 (including the consequences for healthcare) of information  
10 technology.

11 “(2) In each of the fiscal years 2000 and 2001, the  
12 National Science Foundation shall award under this sub-  
13 section up to 25 large grants of up to \$1,000,000 each,  
14 and in each of the fiscal years 2002, 2003, and 2004, the  
15 National Science Foundation shall award under this sub-  
16 section up to 35 large grants of up to \$1,000,000 each.

17 “(3)(A) Of the amounts described in paragraph (1),  
18 \$40,000,000 for fiscal year 2000; \$45,000,000 for fiscal  
19 year 2001; \$50,000,000 for fiscal year 2002; \$55,000,000  
20 for fiscal year 2003; and \$60,000,000 for fiscal year 2004  
21 shall be available for grants of up to \$5,000,000 each for  
22 Information Technology Research Centers.

23 “(B) For purposes of this paragraph, the term ‘Infor-  
24 mation Technology Research Centers’ means groups of six  
25 or more researchers collaborating across scientific and en-

1 gineering disciplines on large-scale long-term research  
2 projects which will significantly advance the science sup-  
3 porting the development of information technology or the  
4 use of information technology in addressing scientific  
5 issues of national importance.

6       “(d) MAJOR RESEARCH EQUIPMENT.—(1) In addi-  
7 tion to the amounts authorized under subsection (b), there  
8 are authorized to be appropriated to the National Science  
9 Foundation \$70,000,000 for fiscal year 2000,  
10 \$70,000,000 for fiscal year 2001, \$80,000,000 for fiscal  
11 year 2002, \$80,000,000 for fiscal year 2003, and  
12 \$85,000,000 for fiscal year 2004 for grants for the devel-  
13 opment of major research equipment to establish terascale  
14 computing capabilities at one or more sites and to promote  
15 diverse computing architectures. Awards made under this  
16 subsection shall provide for support for the operating ex-  
17 penses of facilities established to provide the terascale  
18 computing capabilities, with funding for such operating  
19 expenses derived from amounts available under subsection  
20 (b).

21       “(2) Grants awarded under this subsection shall be  
22 awarded through an open, nationwide, peer-reviewed com-  
23 petition. Awardees may include consortia consisting of  
24 members from some or all of the following types of institu-  
25 tions:

1           “(A) Academic supercomputer centers.

2           “(B) State-supported supercomputer centers.

3           “(C) Supercomputer centers that are supported  
4           as part of federally funded research and development  
5           centers.

6 Notwithstanding any other provision of law, regulation, or  
7 agency policy, a federally funded research and develop-  
8 ment center may apply for a grant under this subsection,  
9 and may compete on an equal basis with any other appli-  
10 cant for the awarding of such a grant.

11          “(3) As a condition of receiving a grant under this  
12 subsection, an awardee must agree—

13           “(A) to connect to the National Science Foun-  
14 dation’s Partnership for Advanced Computational  
15 Infrastructure network;

16           “(B) to the maximum extent practicable, to co-  
17 ordinate with other federally funded large-scale com-  
18 puting and simulation efforts; and

19           “(C) to provide open access to all grant recipi-  
20 ents under this subsection or subsection (c).

21          “(e) INFORMATION TECHNOLOGY EDUCATION AND  
22 TRAINING GRANTS.—

23           “(1) INFORMATION TECHNOLOGY GRANTS.—  
24 The National Science Foundation shall provide  
25 grants under the Scientific and Advanced Tech-

1 nology Act of 1992 for the purposes of section 3(a)  
2 and (b) of that Act, except that the activities sup-  
3 ported pursuant to this paragraph shall be limited to  
4 improving education in fields related to information  
5 technology. The Foundation shall encourage institu-  
6 tions with a substantial percentage of student enroll-  
7 ments from groups underrepresented in information  
8 technology industries to participate in the competi-  
9 tion for grants provided under this paragraph.

10 “(2) INTERNSHIP GRANTS.—The National  
11 Science Foundation shall provide—

12 “(A) grants to institutions of higher edu-  
13 cation to establish scientific internship pro-  
14 grams in information technology research at  
15 private sector companies; and

16 “(B) supplementary awards to institutions  
17 funded under the Louis Stokes Alliances for Mi-  
18 nority Participation program for internships in  
19 information technology research at private sec-  
20 tor companies.

21 “(3) MATCHING FUNDS.—Awards under para-  
22 graph (2) shall be made on the condition that at  
23 least an equal amount of funding for the internship  
24 shall be provided by the private sector company at  
25 which the internship will take place.

1           “(4) DEFINITION.—For purposes of this sub-  
2           section, the term ‘institution of higher education’  
3           has the meaning given that term in section 1201(a)  
4           of the Higher Education Act of 1965 (20 U.S.C.  
5           1141(a)).

6           “(5) AVAILABILITY OF FUNDS.—Of the  
7           amounts described in subsection (c)(1), \$10,000,000  
8           for fiscal year 2000, \$15,000,000 for fiscal year  
9           2001, \$20,000,000 for fiscal year 2002,  
10          \$25,000,000 for fiscal year 2003, and \$25,000,000  
11          for fiscal year 2004 shall be available for carrying  
12          out this subsection.

13          “(f) EDUCATIONAL TECHNOLOGY RESEARCH.—

14                 “(1) RESEARCH PROGRAM.—As part of its re-  
15                 sponsibilities under subsection (a)(1), the National  
16                 Science Foundation shall establish a research pro-  
17                 gram to develop, demonstrate, assess, and dissemi-  
18                 nate effective applications of information and com-  
19                 puter technologies for elementary and secondary  
20                 education. Such program shall—

21                         “(A) support research projects, including  
22                         collaborative projects involving academic re-  
23                         searchers and elementary and secondary  
24                         schools, to develop innovative educational mate-  
25                         rials, including software, and pedagogical ap-

1           proaches based on applications of information  
2           and computer technology;

3           “(B) support empirical studies to deter-  
4           mine the educational effectiveness and the cost  
5           effectiveness of specific, promising educational  
6           approaches, techniques, and materials that are  
7           based on applications of information and com-  
8           puter technologies; and

9           “(C) include provision for the widespread  
10          dissemination of the results of the studies car-  
11          ried out under subparagraphs (A) and (B), in-  
12          cluding maintenance of electronic libraries of  
13          the best educational materials identified acces-  
14          sible through the Internet.

15          “(2) REPLICATION.—The research projects and  
16          empirical studies carried out under paragraph (1)(A)  
17          and (B) shall encompass a wide variety of edu-  
18          cational settings in order to identify approaches,  
19          techniques, and materials that have a high potential  
20          for being successfully replicated throughout the  
21          United States.

22          “(3) AVAILABILITY OF FUNDS.—Of the  
23          amounts authorized under subsection (b),  
24          \$10,000,000 for fiscal year 2000, \$10,500,000 for  
25          fiscal year 2001, \$11,000,000 for fiscal year 2002,

1       \$12,000,000 for fiscal year 2003, and \$12,500,000  
2       for fiscal year 2004 shall be available for the pur-  
3       poses of this subsection.

4       “(g) PEER REVIEW.—All grants made under this sec-  
5       tion shall be made only after being subject to peer review  
6       by panels or groups having private sector representation.”.

7       (b) OTHER PROGRAM AGENCIES.—

8               (1) NATIONAL AERONAUTICS AND SPACE AD-  
9       MINISTRATION.—Section 202(a) of the High-Per-  
10      formance Computing Act of 1991 (15 U.S.C.  
11      5522(a)) is amended by inserting “, and may par-  
12      ticipate in or support research described in section  
13      201(c)(1)” after “and experimentation”.

14              (2) DEPARTMENT OF ENERGY.—Section 203(a)  
15      of the High-Performance Computing Act of 1991  
16      (15 U.S.C. 5523(a)) is amended by striking the pe-  
17      riod at the end and inserting a comma, and by add-  
18      ing after paragraph (4) the following:

19      “and may participate in or support research described in  
20      section 201(c)(1).”.

21              (3) NATIONAL INSTITUTE OF STANDARDS AND  
22      TECHNOLOGY.—Section 204(a)(1) of the High-Per-  
23      formance Computing Act of 1991 (15 U.S.C.  
24      5524(a)(1)) is amended by striking “; and” at the



1 end of subparagraph (C) and inserting a comma,  
2 and by adding after subparagraph (C) the following:  
3 “and may participate in or support research de-  
4 scribed in section 201(c)(1); and”.

5 (4) NATIONAL OCEANIC AND ATMOSPHERIC AD-  
6 MINISTRATION.—Section 204(a)(2) of the High-Per-  
7 formance Computing Act of 1991 (15 U.S.C.  
8 5524(a)(2)) is amended by inserting “, and may  
9 participate in or support research described in sec-  
10 tion 201(c)(1)” after “agency missions”.

11 (5) ENVIRONMENTAL PROTECTION AGENCY.—  
12 Section 205(a) of the High-Performance Computing  
13 Act of 1991 (15 U.S.C. 5525(a)) is amended by in-  
14 sserting “, and may participate in or support re-  
15 search described in section 201(c)(1)” after “dynam-  
16 ics models”.

17 (6) UNITED STATES GEOLOGICAL SURVEY.—  
18 Title II of the High-Performance Computing Act of  
19 1991 (15 U.S.C. 5521 et seq.) is amended—

20 (A) by redesignating sections 207 and 208  
21 as sections 208 and 209, respectively; and

22 (B) by inserting after section 206 the fol-  
23 lowing new section:

1 **“SEC. 207. UNITED STATES GEOLOGICAL SURVEY.**

2 “The United States Geological Survey may partici-  
3 pate in or support research described in section  
4 201(e)(1).”.

5 **SEC. 5. NEXT GENERATION INTERNET.**

6 Section 103 of the High-Performance Computing Act  
7 of 1991 (15 U.S.C. 5513) is amended—

8 (1) by amending subsection (c) to read as fol-  
9 lows:

10 “(c) **STUDY OF INTERNET PRIVACY.—**

11 “(1) **STUDY.—**Not later than 90 days after the  
12 date of the enactment of the Networking and Infor-  
13 mation Technology Research and Development Act,  
14 the National Science Foundation may enter into an  
15 arrangement with the National Research Council of  
16 the National Academy of Sciences for that Council  
17 to conduct a study of privacy on the Internet.

18 “(2) **SUBJECTS.—**The study shall address—

19 “(A) research needed to develop technology  
20 for protection of privacy on the Internet;

21 “(B) current public and private plans for  
22 the deployment of privacy technology, stand-  
23 ards, and policies;

24 “(C) policies, laws, and practices under  
25 consideration or formally adopted in other

1 countries and jurisdictions to protect privacy on  
2 the Internet;

3 “(D) Federal legislation and other regu-  
4 latory steps needed to ensure the development  
5 of privacy technology, standards, and policies;  
6 and

7 “(E) other matters that the National Re-  
8 search Council determines to be relevant to  
9 Internet privacy.

10 “(3) TRANSMITTAL TO CONGRESS.—The Na-  
11 tional Science Foundation shall transmit to the Con-  
12 gress within 21 months of the date of the enactment  
13 of the Networking and Information Technology Re-  
14 search and Development Act a report setting forth  
15 the findings, conclusions, and recommendations of  
16 the National Research Council.

17 “(4) FEDERAL AGENCY COOPERATION.—Fed-  
18 eral agencies shall cooperate fully with the National  
19 Research Council in its activities in carrying out the  
20 study under this subsection.

21 “(5) AVAILABILITY OF FUNDS.—Of the  
22 amounts described in subsection (d)(2), \$900,000  
23 shall be available for the study conducted under this  
24 subsection.”; and

25 (2) in subsection (d)—

1 (A) in paragraph (1)—

2 (i) by striking “1999 and” and insert-  
3 ing “1999,”; and

4 (ii) by inserting “, \$15,000,000 for  
5 fiscal year 2001, and \$15,000,000 for fis-  
6 cal year 2002” after “fiscal year 2000”;

7 (B) in paragraph (2), by inserting “, and  
8 \$25,000,000 for fiscal year 2001 and  
9 \$25,000,000 for fiscal year 2002” after “Act of  
10 1998”;

11 (C) in paragraph (4)—

12 (i) by striking “1999 and” and insert-  
13 ing “1999,”; and

14 (ii) by inserting “, \$10,000,000 for  
15 fiscal year 2001, and \$10,000,000 for fis-  
16 cal year 2002” after “fiscal year 2000”;  
17 and

18 (D) in paragraph (5)—

19 (i) by striking “1999 and” and insert-  
20 ing “1999,”; and

21 (ii) by inserting “, \$5,500,000 for fis-  
22 cal year 2001, and \$5,500,000 for fiscal  
23 year 2002” after “fiscal year 2000”.

1 **SEC. 6. REPORTING REQUIREMENTS.**

2 Section 101 of the High-Performance Computing Act  
3 of 1991 (15 U.S.C. 5511) is amended—

4 (1) in subsection (b)—

5 (A) by redesignating paragraphs (1)  
6 through (5) as subparagraphs (A) through (E),  
7 respectively;

8 (B) by inserting “(1)” after “ADVISORY  
9 COMMITTEE.—”; and

10 (C) by adding at the end the following new  
11 paragraph:

12 “(2) In addition to the duties outlined in paragraph  
13 (1), the advisory committee shall conduct periodic evalua-  
14 tions of the funding, management, implementation, and  
15 activities of the Program, the Next Generation Internet  
16 program, and the Networking and Information Tech-  
17 nology Research and Development program, and shall re-  
18 port not less frequently than once every 2 fiscal years to  
19 the Committee on Science of the House of Representatives  
20 and the Committee on Commerce, Science, and Transpor-  
21 tation of the Senate on its findings and recommendations.  
22 The first report shall be due within 1 year after the date  
23 of the enactment of the Networking and Information  
24 Technology Research and Development Act.”; and

25 (2) in subsection (c)(1)(A) and (2), by inserting  
26 “, including the Next Generation Internet program

1 and the Networking and Information Technology  
2 Research and Development program” after “Pro-  
3 gram” each place it appears.

4 **SEC. 7. EVALUATION OF CAPABILITIES OF FOREIGN**  
5 **ENCRYPTION.**

6 (a) **STUDY.**—The National Science Foundation shall  
7 undertake a study comparing the availability of encryption  
8 technologies in foreign countries to the encryption tech-  
9 nologies subject to export restrictions in the United  
10 States.

11 (b) **REPORT TO CONGRESS.**—Not later than 6  
12 months after the date of the enactment of this Act, the  
13 National Science Foundation shall transmit to the Con-  
14 gress a report on the results of the study undertaken  
15 under subsection (a).

16 **SEC. 8. REPORT TO CONGRESS.**

17 Section 103 of the High-Performance Computing Act  
18 of 1991 (15 U.S.C. 5513), as amended by section 5 of  
19 this Act, is further amended by redesignating subsections  
20 (b), (c), and (d) as subsections (c), (d), and (e), respec-  
21 tively, and by inserting after subsection (a) the following  
22 new subsection:

23 “(b) **REPORT TO CONGRESS.**—

24 “(1) **REQUIREMENT.**—The Director of the Na-  
25 tional Science Foundation shall conduct a study of

1 the issues described in paragraph (3), and not later  
2 than 1 year after the date of the enactment of the  
3 Networking and Information Technology Research  
4 and Development Act, shall transmit to the Congress  
5 a report including recommendations to address those  
6 issues. Such report shall be updated annually for 6  
7 additional years.

8 “(2) CONSULTATION.—In preparing the reports  
9 under paragraph (1), the Director of the National  
10 Science Foundation shall consult with the National  
11 Aeronautics and Space Administration, the National  
12 Institute of Standards and Technology, and such  
13 other Federal agencies and educational entities as  
14 the Director of the National Science Foundation  
15 considers appropriate.

16 “(3) ISSUES.—The reports shall—

17 “(A) identify the current status of high-  
18 speed, large bandwidth capacity access to all  
19 public elementary and secondary schools and li-  
20 braries in the United States;

21 “(B) identify how high-speed, large band-  
22 width capacity access to the Internet to such  
23 schools and libraries can be effectively utilized  
24 within each school and library;

1           “(C) consider the effect that specific or re-  
2           gional circumstances may have on the ability of  
3           such institutions to acquire high-speed, large  
4           bandwidth capacity access to achieve universal  
5           connectivity as an effective tool in the education  
6           process; and

7           “(D) include options and recommendations  
8           for the various entities responsible for elemen-  
9           tary and secondary education to address the  
10          challenges and issues identified in the reports.”.

11 **SEC. 9. STUDY OF ACCESSIBILITY TO INFORMATION TECH-**  
12 **NOLOGY.**

13          Section 201 of the High-Performance Computing Act  
14 of 1991 (15 U.S.C. 5524), as amended by sections 3(a)  
15 and 4(a) of this Act, is amended further by inserting after  
16 subsection (g) the following new subsection:

17          “(h) STUDY OF ACCESSIBILITY TO INFORMATION  
18 TECHNOLOGY.—

19           “(1) STUDY.—Not later than 90 days after the  
20           date of the enactment of the Networking and Infor-  
21           mation Technology Research and Development Act,  
22           the Director of the National Science Foundation, in  
23           consultation with the National Institute on Dis-  
24           ability and Rehabilitation Research, shall enter into  
25           an arrangement with the National Research Council



1 of the National Academy of Sciences for that Coun-  
2 cil to conduct a study of accessibility to information  
3 technologies by individuals who are elderly, individ-  
4 uals who are elderly with a disability, and individ-  
5 uals with disabilities.

6 “(2) SUBJECTS.—The study shall address—

7 “(A) current barriers to access to informa-  
8 tion technologies by individuals who are elderly,  
9 individuals who are elderly with a disability,  
10 and individuals with disabilities;

11 “(B) research and development needed to  
12 remove those barriers;

13 “(C) Federal legislative, policy, or regu-  
14 latory changes needed to remove those barriers;  
15 and

16 “(D) other matters that the National Re-  
17 search Council determines to be relevant to ac-  
18 cess to information technologies by individuals  
19 who are elderly, individuals who are elderly with  
20 a disability, and individuals with disabilities.

21 “(3) TRANSMITTAL TO CONGRESS.—The Direc-  
22 tor of the National Science Foundation shall trans-  
23 mit to the Congress within 2 years of the date of the  
24 enactment of the Networking and Information Tech-  
25 nology Research and Development Act a report set-

1       ting forth the findings, conclusions, and rec-  
2       ommendations of the National Research Council.

3               “(4) FEDERAL AGENCY COOPERATION.—Fed-  
4       eral agencies shall cooperate fully with the National  
5       Research Council in its activities in carrying out the  
6       study under this subsection.

7               “(5) AVAILABILITY OF FUNDS.—Funding for  
8       the study described in this subsection shall be avail-  
9       able, in the amount of \$700,000, from amounts de-  
10      scribed in subsection (c)(1).”.

11 **SEC. 10. COMPTROLLER GENERAL STUDY.**

12       Not later than 1 year after the date of the enactment  
13 of this Act, the Comptroller General shall transmit to the  
14 Congress a report on the results of a detailed study ana-  
15 lyzing the effects of this Act, and the amendments made  
16 by this Act, on lower income families, minorities, and  
17 women.

18 **SEC. 11. BUY AMERICAN.**

19       (a) COMPLIANCE WITH BUY AMERICAN ACT.—No  
20 funds appropriated pursuant to this Act may be expended  
21 by an entity unless the entity agrees that in expending  
22 the assistance the entity will comply with sections 2  
23 through 4 of the Buy American Act (41 U.S.C. 10a–10c).

24       (b) SENSE OF CONGRESS.—In the case of any equip-  
25 ment or products that may be authorized to be purchased

1 with financial assistance provided under this Act, it is the  
2 sense of the Congress that entities receiving such assist-  
3 ance should, in expending the assistance, purchase only  
4 American-made equipment and products.

5 (c) NOTICE TO RECIPIENTS OF ASSISTANCE.—In  
6 providing financial assistance under this Act, the head of  
7 each Federal agency shall provide to each recipient of the  
8 assistance a notice describing the statement made in sub-  
9 section (b) by the Congress.

Passed the House of Representatives February 15,  
2000.

Attest:

JEFF TRANDAHL,

*Clerk.*