

110TH CONGRESS
1ST SESSION

S. 761

AN ACT

To invest in innovation and education to improve the competitiveness of the United States in the global economy.

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 “America COMPETES
5 Act” or the “America Creating Opportunities to Meaning-
6 fully Promote Excellence in Technology, Education, and
7 Science Act”.

1 **SEC. 2. ORGANIZATION OF ACT INTO DIVISIONS; TABLE OF**
 2 **CONTENTS.**

3 (a) DIVISIONS.—This Act is organized into 5 divi-
 4 sions as follows:

5 (1) DIVISION A.—Commerce and Science.

6 (2) DIVISION B.—Department of Energy.

7 (3) DIVISION B.—Education.

8 (4) DIVISION D.—National Science Foundation.

9 (5) DIVISION E.—General Provisions.

10 (b) TABLE OF CONTENTS.—The table of contents for
 11 this Act is as follows:

Sec. 1. Short title.

Sec. 2. Organization of Act into divisions; table of contents.

DIVISION A—COMMERCE AND SCIENCE

Sec. 1001. Short title.

TITLE I—OFFICE OF SCIENCE AND TECHNOLOGY POLICY;
 GOVERNMENT-WIDE SCIENCE

Sec. 1101. National Science and Technology Summit.

Sec. 1102. Study on barriers to innovation.

Sec. 1103. National Innovation Medal.

Sec. 1104. Release of scientific research results.

Sec. 1105. Semiannual Science, Technology, Engineering, and Mathematics
 Days.

Sec. 1106. Study of service science.

TITLE II—INNOVATION PROMOTION

Sec. 1201. President's Council on Innovation and Competitiveness.

Sec. 1202. Innovation acceleration research.

TITLE III—NATIONAL AERONAUTICS AND SPACE
 ADMINISTRATION

Sec. 1301. NASA's contribution to innovation.

Sec. 1302. Aeronautics Institute for Research.

Sec. 1303. Basic research enhancement.

Sec. 1304. Aging workforce issues program.

Sec. 1305. Conforming amendments.

Sec. 1306. Fiscal year 2008 basic science and research funding.

TITLE IV—NATIONAL INSTITUTE OF STANDARDS AND
TECHNOLOGY

- Sec. 1401. Authorization of appropriations.
 Sec. 1402. Amendments to the Stevenson-Wydler Technology Innovation Act of 1980.
 Sec. 1403. Innovation acceleration.
 Sec. 1404. Manufacturing extension.
 Sec. 1405. Experimental Program to Stimulate Competitive Technology.
 Sec. 1406. Technical amendments to the National Institute of Standards and Technology Act and other technical amendments.
 Sec. 1407. Clarification of eligible contributions in connection with regional Centers responsible for implementing the objectives of the holdings manufacturing partnership program.

TITLE V—OCEAN AND ATMOSPHERIC PROGRAMS

- Sec. 1501. Ocean and atmospheric research and development program.
 Sec. 1502. NOAA ocean and atmospheric science education programs.
 Sec. 1503. NOAA's contribution to innovation.
 Sec. 1504. NOAA accountability and transparency.

DIVISION B—DEPARTMENT OF ENERGY

- Sec. 2001. Short title.
 Sec. 2002. Definitions.
 Sec. 2003. Mathematics, science, and engineering education at the Department of Energy.
 Sec. 2004. Department of Energy early-career research grants.
 Sec. 2005. Advanced Research Projects Authority-Energy.
 Sec. 2006. Authorization of appropriations for the Department of Energy for basic research.
 Sec. 2007. Discovery science and engineering innovation institutes.
 Sec. 2008. Protecting America's Competitive Edge (PACE) graduate fellowship program.
 Sec. 2009. Title IX compliance.
 Sec. 2010. High-risk, high-reward research.
 Sec. 2011. Distinguished scientist program.

DIVISION C—EDUCATION

- Sec. 3001. Findings.
 Sec. 3002. Definitions.

TITLE I—TEACHER ASSISTANCE

Subtitle A—Teachers for a Competitive Tomorrow

- Sec. 3111. Purpose.
 Sec. 3112. Definitions.
 Sec. 3113. Programs for baccalaureate degrees in mathematics, science, engineering, or critical foreign languages, with concurrent teacher certification.
 Sec. 3114. Programs for master's degrees in mathematics, science, technology, or critical foreign languages education.
 Sec. 3115. General provisions.
 Sec. 3116. Authorization of appropriations.

Subtitle B—Advanced Placement and International Baccalaureate Programs

- Sec. 3121. Purpose.
- Sec. 3122. Definitions.
- Sec. 3123. Advanced Placement and International Baccalaureate programs.

Subtitle C—Promising Practices in Mathematics, Science, Technology, and Engineering Teaching

- Sec. 3131. Promising practices.

TITLE II—MATHEMATICS

- Sec. 3201. Math Now for elementary school and middle school students program.
- Sec. 3202. Summer term education programs.
- Sec. 3203. Math skills for secondary school students.

TITLE III—FOREIGN LANGUAGE PARTNERSHIP PROGRAM

- Sec. 3301. Findings and purpose.
- Sec. 3302. Definitions.
- Sec. 3303. Program authorized.
- Sec. 3304. Authorization of appropriations.

TITLE IV—ALIGNMENT OF EDUCATION PROGRAMS

- Sec. 3401. Alignment of secondary school graduation requirements with the demands of 21st century postsecondary endeavors and support for P-16 education data systems.

TITLE V—MATHEMATICS AND SCIENCE PARTNERSHIP BONUS GRANTS

- Sec. 3501. Mathematics and science partnership bonus grants.
- Sec. 3502. Authorization of appropriations.

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- Sec. 4001. Authorization of appropriations.
- Sec. 4002. Strengthening of education and human resources directorate through equitable distribution of new funds.
- Sec. 4003. Graduate fellowships and graduate traineeships.
- Sec. 4004. Professional science master's degree programs.
- Sec. 4005. Increased support for science education through the National Science Foundation.
- Sec. 4006. Meeting critical national science needs.
- Sec. 4007. Reaffirmation of the merit-review process of the National Science Foundation.
- Sec. 4008. Experimental Program to Stimulate Competitive Research.
- Sec. 4009. Encouraging participation.
- Sec. 4010. Cyberinfrastructure.
- Sec. 4011. Federal information and communications technology research.
- Sec. 4012. Robert Noyce Teacher Program.
- Sec. 4013. Sense of the Senate regarding the mathematics and science partnership programs of the Department of Education and the National Science Foundation.
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DIVISION E—GENERAL PROVISIONS

Sec. 5001. Collection of data relating to trade in services.

Sec. 5002. Sense of the Senate regarding small business growth and capital markets.

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Sec. 5007. Sense of the Senate regarding capital markets.

1 **DIVISION A—COMMERCE AND** 2 **SCIENCE**

3 **SEC. 1001. SHORT TITLE.**

4 This division may be cited as the “American Innova-
 5 tion and Competitiveness Act”.

6 **TITLE I—OFFICE OF SCIENCE** 7 **AND TECHNOLOGY POLICY;** 8 **GOVERNMENT-WIDE SCIENCE**

9 **SEC. 1101. NATIONAL SCIENCE AND TECHNOLOGY SUMMIT.**

10 (a) IN GENERAL.—Not later than 180 days after the
 11 date of enactment of this Act, the President shall convene
 12 a National Science and Technology Summit to examine
 13 the health and direction of the United States’ science,
 14 technology, engineering, and mathematics enterprises. The
 15 Summit shall include representatives of industry, small
 16 business, labor, academia, State government, Federal re-
 17 search and development agencies, non-profit environ-
 18 mental and energy policy groups concerned with science
 19 and technology issues, and other nongovernmental organi-

1 zations, including representatives of science, technology,
2 and engineering organizations and associations that rep-
3 resent individuals identified in section 33 or 34 of the
4 Science and Engineering Equal Opportunities Act (42
5 U.S.C. 1885a or 1885b).

6 (b) REPORT.—Not later than 90 days after the date
7 of the conclusion of the Summit, the President shall issue
8 a report on the results of the Summit. The report shall
9 identify key research and technology challenges and rec-
10 ommendations, including recommendations to increase the
11 representation of individuals identified in section 33 or 34
12 of the Science and Engineering Equal Opportunities Act
13 (42 U.S.C. 1885a or 1885b) in science, engineering, and
14 technology enterprises, for areas of investment for Federal
15 research and technology programs to be carried out during
16 the 5-year period beginning on the date the report is
17 issued.

18 (c) ANNUAL EVALUATION.—Beginning in 2008, the
19 Director of the Office of Science and Technology Policy
20 shall publish and submit to Congress an annual report
21 that contains recommendations for areas of investment for
22 Federal research and technology programs, including a
23 justification for each area identified in the report. Each
24 report submitted during the 5-year period beginning on

1 the date of the conclusion of the Summit shall take into
2 account any recommendations made by the Summit.

3 **SEC. 1102. STUDY ON BARRIERS TO INNOVATION.**

4 (a) IN GENERAL.—Not later than 90 days after the
5 date of enactment of this Act, the Director of the Office
6 of Science and Technology Policy shall enter into a con-
7 tract with the National Academy of Sciences to conduct
8 and complete a study to identify, and to review methods
9 to mitigate, new forms of risk for businesses beyond con-
10 ventional operational and financial risk that affect the
11 ability to innovate, including studying and reviewing—

12 (1) incentive and compensation structures that
13 could effectively encourage long-term value creation
14 and innovation;

15 (2) methods of voluntary and supplemental dis-
16 closure by industry of intellectual capital, innovation
17 performance, and indicators of future valuation;

18 (3) means by which government could work
19 with industry to enhance the legal and regulatory
20 framework to encourage the disclosures described in
21 paragraph (2);

22 (4) practices that may be significant deterrents
23 to United States businesses engaging in innovation
24 risk-taking compared to foreign competitors;

1 (5) costs faced by United States businesses en-
2 gaging in innovation compared to foreign competi-
3 tors, including the burden placed on businesses by
4 high and rising health care costs;

5 (6) means by which industry, trade associa-
6 tions, and universities could collaborate to support
7 research on management practices and methodolo-
8 gies for assessing the value and risks of longer term
9 innovation strategies;

10 (7) means to encourage new, open, and collabo-
11 rative dialogue between industry associations, regu-
12 latory authorities, management, shareholders, labor,
13 and other concerned interests to encourage appro-
14 priate approaches to innovation risk-taking;

15 (8) incentives to encourage participation among
16 institutions of higher education, especially those in
17 rural and underserved areas, to engage in innova-
18 tion;

19 (9) relevant Federal regulations that may dis-
20 courage or encourage innovation;

21 (10) all provisions of the Internal Revenue Code
22 of 1986, including tax provisions, compliance costs,
23 and reporting requirements, that discourage innova-
24 tion;

1 (11) the extent to which Federal funding pro-
2 motes or hinders innovation;

3 (12) the extent to which individuals are being
4 equipped with the knowledge and skills necessary for
5 success in the 21st century workforce, as measured
6 by—

7 (A) elementary school and secondary
8 school student academic achievement on the
9 State academic assessments required under sec-
10 tion 1111(b)(3) of the Elementary and Sec-
11 ondary Education Act of 1965 (20 U.S.C. 6311
12 (b)(3)), especially in mathematics, science, and
13 reading, identified by ethnicity, race, and gen-
14 der;

15 (B) the rate of student entrance into insti-
16 tutions of higher education, identified by eth-
17 nicity, race, and gender, by type of institution,
18 and barriers to access to institutions of higher
19 education;

20 (C) the rates of—

21 (i) students successfully completing
22 postsecondary education programs, identi-
23 fied by ethnicity, race, and gender; and

24 (ii) certificates, associate degrees, and
25 baccalaureate degrees awarded in the fields

1 of science, technology, engineering, and
2 mathematics, identified by ethnicity, race,
3 and gender; and

4 (D) access to, and availability of, high
5 quality job training programs;

6 (13) the projected outcomes of increasing the
7 number of individuals identified in section 33 or 34
8 of the Science and Engineering Equal Opportunities
9 Act (42 U.S.C. 1885a or 1885b) in science, tech-
10 nology, engineering, and mathematics fields; and

11 (14) the identification of strategies to increase
12 the participation of individuals identified in section
13 33 or 34 of the Science and Engineering Equal Op-
14 portunities Act (42 U.S.C. 1885a or 1885b) in
15 science, technology, engineering, and mathematics
16 fields.

17 (b) REPORT REQUIRED.—Not later than 1 year after
18 entering into the contract required by subsection (a) and
19 4 years after entering into such contract, the National
20 Academy of Sciences shall submit to Congress a report
21 on the study conducted under such subsection.

22 (c) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated to the National Acad-
24 emy of Sciences \$1,000,000 for fiscal year 2008 for the

1 purpose of carrying out the study required under this sec-
2 tion.

3 **SEC. 1103. NATIONAL INNOVATION MEDAL.**

4 Section 16 of the Stevenson-Wydler Technology Inno-
5 vation Act of 1980 (15 U.S.C. 3711) is amended—

6 (1) by striking the section heading and insert-
7 ing “**SEC. 16. NATIONAL TECHNOLOGY AND IN-**
8 **NOVATION MEDAL.**”; and

9 (2) in subsection (a), by striking “Technology
10 Medal” and inserting “Technology and Innovation
11 Medal”.

12 **SEC. 1104. RELEASE OF SCIENTIFIC RESEARCH RESULTS.**

13 (a) PRINCIPLES.—Not later than 90 days after the
14 date of enactment of this Act, the Director of the Office
15 of Science and Technology Policy, in consultation with the
16 Director of the Office of Management and Budget and the
17 heads of all Federal civilian agencies that conduct sci-
18 entific research, shall develop and issue an overarching set
19 of principles to ensure the communication and open ex-
20 change of data and results to other agencies, policy-
21 makers, and the public of research conducted by a sci-
22 entist employed by a Federal civilian agency and to pre-
23 vent the intentional or unintentional suppression or distor-
24 tion of such research findings. The principles shall encour-
25 age the open exchange of data and results of research un-

1 dertaken by a scientist employed by such an agency and
2 shall be consistent with existing Federal laws, including
3 chapter 18 of title 35, United States Code (commonly
4 known as the “Bayh-Dole Act”).

5 (b) IMPLEMENTATION.—Not later than 180 days
6 after the date of enactment of this Act, the Director of
7 the Office of Science and Technology Policy shall ensure
8 that all civilian Federal agencies that conduct scientific
9 research develop specific policies and procedures regarding
10 the public release of data and results of research con-
11 ducted by a scientist employed by such an agency con-
12 sistent with the principles established under subsection
13 (a). Such polices and procedures shall—

14 (1) specifically address what is and what is not
15 permitted or recommended under such policies and
16 procedures;

17 (2) be specifically designed for each such agen-
18 cy;

19 (3) be applied uniformly throughout each such
20 agency; and

21 (4) be widely communicated and readily acces-
22 sible to all employees of each such agency and the
23 public.

1 **SEC. 1105. SEMIANNUAL SCIENCE, TECHNOLOGY, ENGI-**
2 **NEERING, AND MATHEMATICS DAYS.**

3 It is the sense of Congress that the Director of the
4 Office of Science and Technology Policy should—

5 (1) encourage all elementary and middle schools
6 to observe a Science, Technology, Engineering, and
7 Mathematics Day twice in every school year for the
8 purpose of bringing in science, technology, engineer-
9 ing, and mathematics mentors to provide hands-on
10 lessons to excite and inspire students to pursue the
11 science, technology, engineering, and mathematics
12 fields (including continuing education and career
13 paths);

14 (2) initiate a program, in consultation with
15 Federal agencies and departments, to provide sup-
16 port systems, tools (from existing outreach offices),
17 and mechanisms to allow and encourage Federal em-
18 ployees with scientific, technological, engineering, or
19 mathematical responsibilities to reach out to local
20 classrooms on such Science, Technology, Engineer-
21 ing, and Mathematics Days to instruct and inspire
22 school children, focusing on real life science, tech-
23 nology, engineering, and mathematics-related appli-
24 cable experiences along with hands-on demonstra-
25 tions in order to demonstrate the advantages and di-

1 rect applications of studying the science, technology,
2 engineering, and mathematics fields; and

3 (3) promote Science, Technology, Engineering,
4 and Mathematics Days involvement by private sector
5 and institutions of higher education employees, in-
6 cluding partnerships with scientific, engineering, and
7 mathematical professional organizations representing
8 individuals identified in section 33 or 34 of the
9 Science and Engineering Equal Opportunities Act
10 (42 U.S.C. 1885a or 1885b), in a manner similar to
11 the Federal employee involvement described in para-
12 graph (2).

13 **SEC. 1106. STUDY OF SERVICE SCIENCE.**

14 (a) SENSE OF CONGRESS.—It is the sense of Con-
15 gress that, in order to strengthen the competitiveness of
16 United States enterprises and institutions and to prepare
17 the people of the United States for high-wage, high-skill
18 employment, the Federal Government should better under-
19 stand and respond strategically to the emerging manage-
20 ment and learning discipline known as service science.

21 (b) STUDY.—Not later than 270 days after the date
22 of enactment of this Act, the Director of the Office of
23 Science and Technology Policy, through the National
24 Academy of Sciences, shall conduct a study and report to
25 Congress regarding how the Federal Government should

1 support, through research, education, and training, the
 2 emerging management and learning discipline known as
 3 service science.

4 (c) OUTSIDE RESOURCES.—In conducting the study
 5 under subsection (b), the National Academy of Sciences
 6 shall consult with leaders from 2- and 4-year institutions
 7 of higher education, as defined in section 101(a) of the
 8 Higher Education Act of 1965 (20 U.S.C. 1001(a)), lead-
 9 ers from corporations, and other relevant parties.

10 (d) SERVICE SCIENCE DEFINED.—In this section,
 11 the term “service science” means curricula, training, and
 12 research programs that are designed to teach individuals
 13 to apply scientific, engineering, and management dis-
 14 ciplines that integrate elements of computer science, oper-
 15 ations research, industrial engineering, business strategy,
 16 management sciences, and social and legal sciences, in
 17 order to encourage innovation in how organizations create
 18 value for customers and shareholders that could not be
 19 achieved through such disciplines working in isolation.

20 **TITLE II—INNOVATION**

21 **PROMOTION**

22 **SEC. 1201. PRESIDENT’S COUNCIL ON INNOVATION AND**

23 **COMPETITIVENESS.**

24 (a) IN GENERAL.—The President shall establish a
 25 President’s Council on Innovation and Competitiveness.

1 (b) DUTIES.—The Council’s duties shall include—

2 (1) monitoring implementation of public laws
3 and initiatives for promoting innovation, including
4 policies related to research funding, taxation, immi-
5 gration, trade, and education that are proposed in
6 this Act or in any other Act;

7 (2) providing advice to the President with re-
8 spect to global trends in competitiveness and innova-
9 tion and allocation of Federal resources in edu-
10 cation, job training, and technology research and de-
11 velopment considering such global trends in competi-
12 tiveness and innovation;

13 (3) in consultation with the Director of the Of-
14 fice of Management and Budget, developing a proc-
15 ess for using metrics to assess the impact of existing
16 and proposed policies and rules that affect innova-
17 tion capabilities in the United States;

18 (4) identifying opportunities and making rec-
19 ommendations for the heads of executive agencies to
20 improve innovation, monitoring, and reporting on
21 the implementation of such recommendations;

22 (5) developing metrics for measuring the
23 progress of the Federal Government with respect to
24 improving conditions for innovation, including

1 through talent development, investment, and infra-
2 structure improvements; and

3 (6) submitting to the President and Congress
4 an annual report on such progress.

5 (c) MEMBERSHIP AND COORDINATION.—

6 (1) MEMBERSHIP.—The Council shall be com-
7 posed of the Secretary or head of each of the fol-
8 lowing:

9 (A) The Department of Commerce.

10 (B) The Department of Defense.

11 (C) The Department of Education.

12 (D) The Department of Energy.

13 (E) The Department of Health and
14 Human Services.

15 (F) The Department of Homeland Secu-
16 rity.

17 (G) The Department of Labor.

18 (H) The Department of the Treasury.

19 (I) The National Aeronautics and Space
20 Administration.

21 (J) The Securities and Exchange Commis-
22 sion.

23 (K) The National Science Foundation.

24 (L) The Office of the United States Trade
25 Representative.

1 (M) The Office of Management and Budget
2 et.

3 (N) The Office of Science and Technology
4 Policy.

5 (O) The Environmental Protection Agency.

6 (P) The Small Business Administration.

7 (Q) Any other department or agency des-
8 ignated by the President.

9 (2) CHAIRPERSON.—The Secretary of Com-
10 merce shall serve as Chairperson of the Council.

11 (3) COORDINATION.—The Chairperson of the
12 Council shall ensure appropriate coordination be-
13 tween the Council and the National Economic Coun-
14 cil, the National Security Council, and the National
15 Science and Technology Council.

16 (4) MEETINGS.—The Council shall meet on a
17 semi-annual basis at the call of the Chairperson and
18 the initial meeting of the Council shall occur not
19 later than 6 months after the date of enactment of
20 this Act.

21 (d) DEVELOPMENT OF INNOVATION AGENDA.—

22 (1) IN GENERAL.—The Council shall develop a
23 comprehensive agenda for strengthening the innova-
24 tion and competitiveness capabilities of the Federal

1 Government, State governments, academia, and the
2 private sector in the United States.

3 (2) CONTENTS.—The comprehensive agenda re-
4 quired by paragraph (1) shall include the following:

5 (A) An assessment of current strengths
6 and weaknesses of the United States investment
7 in research and development.

8 (B) Recommendations for addressing
9 weaknesses and maintaining the United States
10 as a world leader in research and development
11 and technological innovation, including strate-
12 gies for increasing the participation of individ-
13 uals identified in section 33 or 34 of the
14 Science and Engineering Equal Opportunities
15 Act (42 U.S.C. 1885a or 1885b) in science,
16 technology, engineering, and mathematics
17 fields.

18 (C) Recommendations for strengthening
19 the innovation and competitiveness capabilities
20 of the Federal government, State governments,
21 academia, and the private sector in the United
22 States.

23 (3) ADVISORS.—

24 (A) RECOMMENDATION.—Not later than
25 30 days after the date of enactment of this Act,

1 the National Academy of Sciences, in consulta-
2 tion with the National Academy of Engineering,
3 the Institute of Medicine, and the National Re-
4 search Council, shall develop and submit to the
5 President a list of 50 individuals that are rec-
6 ommended to serve as advisors to the Council
7 during the development of the comprehensive
8 agenda required by paragraph (1). The list of
9 advisors shall include appropriate representa-
10 tives from the following:

11 (i) The private sector of the economy.

12 (ii) Labor.

13 (iii) Various fields including informa-
14 tion technology, energy, engineering, high-
15 technology manufacturing, health care, and
16 education.

17 (iv) Scientific organizations.

18 (v) Academic organizations and other
19 nongovernmental organizations working in
20 the area of science or technology.

21 (vi) Nongovernmental organizations,
22 such as professional organizations, that
23 represent individuals identified in section
24 33 or 34 of the Science and Engineering
25 Equal Opportunities Act (42 U.S.C. 1885a

1 or 1885b) in the areas of science, engineer-
2 ing, technology, and mathematics.

3 (B) DESIGNATION.—Not later than 30
4 days after the date that the National Academy
5 of Sciences submits the list of recommended in-
6 dividuals to serve as advisors, the President
7 shall designate 50 individuals to serve as advi-
8 sors to the Council.

9 (C) REQUIREMENT TO CONSULT.—The
10 Council shall develop the comprehensive agenda
11 required by paragraph (1) in consultation with
12 the advisors.

13 (4) INITIAL SUBMISSION AND UPDATES.—

14 (A) INITIAL SUBMISSION.—Not later than
15 1 year after the date of enactment of this Act,
16 the Council shall submit to Congress and the
17 President the comprehensive agenda required
18 by paragraph (1).

19 (B) UPDATES.—At least once every 2
20 years, the Council shall update the comprehen-
21 sive agenda required by paragraph (1) and sub-
22 mit each such update to Congress and the
23 President.

24 (e) TECHNICAL AMENDMENT.—Section 101(b) of the
25 High-Performance Computing Act of 1991 (15 U.S.C.

1 5511(b)) is amended by striking “an” in the first sentence
2 and inserting “a distinct”.

3 (f) **OPTIONAL ASSIGNMENT.**—Notwithstanding sub-
4 section (a) and paragraphs (1) and (2) of subsection (c),
5 the President may designate an existing council to carry
6 out the requirements of this section.

7 **SEC. 1202. INNOVATION ACCELERATION RESEARCH.**

8 (a) **PROGRAM ESTABLISHED.**—The President,
9 through the head of each Federal research agency, shall
10 establish a program, to be known as the Innovation Accel-
11 eration Research Program, to support and promote inno-
12 vation in the United States through research projects that
13 can yield results with far-ranging or wide-ranging implica-
14 tions but are considered too novel or span too diverse a
15 range of disciplines to fare well in the traditional peer re-
16 view process. Priority in the awarding of grants under this
17 program shall be given to research projects that—

18 (1) meet fundamental technology or scientific
19 challenges;

20 (2) involve multidisciplinary work; and

21 (3) involve a high degree of novelty.

22 (b) **DEPARTMENTS AND AGENCIES.**—

23 (1) **FUNDING GOALS.**—The President shall en-
24 sure that it is the goal of each Executive agency (as
25 defined in section 105 of title 5, United States

1 Code) that finances research in science, mathe-
2 matics, engineering, and technology to allocate ap-
3 proximately 8 percent of the agency's total annual
4 research and development budget to funding re-
5 search, including grants, under the Innovation Accel-
6 eration Research Program.

7 (2) ADMINISTRATION.—

8 (A) IN GENERAL.—Not later than 90 days
9 after the date of enactment of this Act, the
10 head of each Executive agency participating in
11 the Innovation Acceleration Research Program
12 under paragraph (1) shall submit to the Direc-
13 tor of the Office of Science and Technology Pol-
14 icy and the Director of the Office of Manage-
15 ment and Budget a plan for implementing the
16 research program within such Executive agency.
17 An implementation plan may incorporate exist-
18 ing initiatives of the Executive agencies that
19 promote research in innovation as described in
20 subsection (a).

21 (B) REQUIRED METRICS.—

22 (i) IN GENERAL.—The head of each
23 Executive agency submitting an implemen-
24 tation plan pursuant to subparagraph (A)
25 shall include metrics upon which grant

1 funding decisions will be made and metrics
2 for assessing the success of the grants
3 awarded.

4 (ii) METRICS FOR BASIC RESEARCH.—

5 The metrics developed under clause (i) to
6 assess basic research programs shall assess
7 management of the programs and shall not
8 assess specific scientific outcomes of the
9 research conducted by the programs.

10 (C) GRANT DURATION AND RENEWALS.—

11 (i) IN GENERAL.—Any grants issued
12 by an Executive agency under this section
13 shall be for a period not to exceed 3 years.

14 (ii) EVALUATION.—Not later than 90
15 days prior to the expiration of a grant
16 issued under this section, the Executive
17 agency that approved the grant shall com-
18 plete an evaluation of the effectiveness of
19 the grant based on the metrics established
20 pursuant to subparagraph (B). In its eval-
21 uation, the Executive agency shall consider
22 the extent to which the program funded by
23 the grant met the goals of quality improve-
24 ment and job creation.

1 (iii) PUBLICATION OF REVIEW.—The
2 Executive agency shall publish and make
3 available to the public the review of each
4 grant approved pursuant to this section.

5 (iv) FAILURE TO MEET METRICS.—
6 Any grant that the Executive agency
7 awarding the grant determines has failed
8 to satisfy any of the metrics developed pur-
9 suant to subparagraph (B), shall not be el-
10 igible for a renewal.

11 (v) RENEWAL.—A grant issued under
12 this section that satisfies all of the metrics
13 developed pursuant to subparagraph (B),
14 may be renewed once for a period of not
15 more than 3 years. Additional renewals
16 may be considered only if the head of the
17 Executive agency makes a specific finding
18 that the program being funded involves a
19 significant technology or scientific advance
20 that requires a longer time frame to com-
21 plete critical research, and the research
22 satisfies all the metrics developed pursuant
23 to subparagraph (B).

24 (vi) WAIVER.—The head of the Exec-
25 utive agency may authorize a waiver of the

1 requirement of clauses (iv) and (v) related
2 to satisfying metric requirements if he or
3 she determines that the grant failed to
4 meet a small number of metrics and the
5 failure was not significant for the overall
6 performance of the grant.

7 (c) DEFINITIONS.—In this section:

8 (1) FEDERAL RESEARCH AGENCY.—The term
9 “Federal research agency” means a major organiza-
10 tional component of a department or agency of the
11 Federal Government, or other establishment of the
12 Federal Government operating with appropriated
13 funds, that has as its primary purpose the perform-
14 ance of scientific research.

15 (2) MAJOR ORGANIZATIONAL COMPONENT.—
16 The term “major organizational component”, with
17 respect to a department, agency, or other establish-
18 ment of the Federal Government, means a compo-
19 nent of the department, agency, or other establish-
20 ment that is administered by an individual whose
21 rate of basic pay is not less than the rate of basic
22 pay payable under level V of the Executive Schedule
23 under section 5316 of title 5, United States Code.

1 **TITLE III—NATIONAL AERO-**
2 **NAUTICS AND SPACE ADMIN-**
3 **ISTRATION**

4 **SEC. 1301. NASA'S CONTRIBUTION TO INNOVATION.**

5 (a) PARTICIPATION IN INTERAGENCY ACTIVITIES.—

6 The National Aeronautics and Space Administration shall
7 be a full participant in any interagency effort to promote
8 innovation and economic competitiveness through near-
9 term and long-term basic scientific research and develop-
10 ment and the promotion of science, technology, engineer-
11 ing, and mathematics education, consistent with the agen-
12 cy mission, including authorized activities.

13 (b) HISTORIC FOUNDATION.—In order to carry out
14 the participation described in subsection (a), the Adminis-
15 trator of the National Aeronautics and Space Administra-
16 tion shall build on the historic role of the National Aero-
17 nautics and Space Administration in stimulating excel-
18 lence in the advancement of physical science and engineer-
19 ing disciplines and in providing opportunities and incen-
20 tives for the pursuit of academic studies in science, tech-
21 nology, engineering, and mathematics.

22 (c) BALANCED SCIENCE PROGRAM AND ROBUST AU-
23 THORIZATION LEVELS.—The balanced science program
24 authorized by section 101(d) of the National Aeronautics
25 and Space Administration Authorization Act of 2005 (42

1 U.S.C. 16611) shall be an element of the contribution by
2 the National Aeronautics and Space Administration to
3 such interagency programs. It is the sense of Congress
4 that a robust National Aeronautics and Space Administra-
5 tion, funded at the levels authorized for fiscal years 2007
6 and 2008 under sections 202 and 203 of such Act (42
7 U.S.C. 16631 and 16632) and at appropriate levels in
8 subsequent fiscal years would enable a fair balance among
9 science, aeronautics, education, exploration, and human
10 space flight programs and allow full participation in any
11 interagency efforts to promote innovation and economic
12 competitiveness.

13 (d) ANNUAL REPORT.—

14 (1) REQUIREMENT.—The Administrator shall
15 submit to Congress and the President an annual re-
16 port describing the activities conducted pursuant to
17 this section, including a description of the goals and
18 the objective metrics upon which funding decisions
19 were made.

20 (2) CONTENT.—Each report submitted pursu-
21 ant to paragraph (1) shall include, with regard to
22 science, technology, engineering, and mathematics
23 education programs, at a minimum, the following:

24 (A) A description of each program.

25 (B) The amount spent on each program.

1 (C) The number of students or teachers
2 served by each program.

3 (D) Measurement of how each program
4 improved student achievement, including with
5 regard to challenging State achievement stand-
6 ards.

7 **SEC. 1302. AERONAUTICS INSTITUTE FOR RESEARCH.**

8 (a) ESTABLISHMENT.—

9 (1) IN GENERAL.—The Administrator of the
10 National Aeronautics and Space Administration
11 shall establish within the Administration an Aero-
12 nautics Institute for Research for the purpose of
13 managing the aeronautics research carried out by
14 the Administration.

15 (2) DIRECTOR.—The Institute shall be headed
16 by a Director with appropriate experience in aero-
17 nautics research and development.

18 (b) DUTIES.—The Institute shall implement the pro-
19 grams authorized under title IV of the National Aero-
20 nautics and Space Administration Authorization Act of
21 2005 (42 U.S.C. 16701 et seq.).

22 (c) COOPERATION WITH OTHER AGENCIES.—

23 (1) IN GENERAL.—The Institute shall operate
24 in conjunction with relevant programs in the De-
25 partment of Transportation, the Department of De-

1 fense, the Department of Commerce, and the De-
2 partment of Homeland Security, including the activi-
3 ties of the Joint Planning and Development Office
4 established under the Vision 100—Century of Avia-
5 tion Reauthorization Act (Public Law 108–176; 117
6 Stat. 2490).

7 (2) RESOURCES.—The Director of the Institute
8 may accept assistance, staff, and funding from those
9 Departments and other Federal agencies. Any such
10 funding shall be in addition to funds authorized for
11 aeronautics under the National Aeronautics and
12 Space Administration Authorization Act of 2005
13 (Public Law 109–155).

14 (3) OTHER COORDINATION.—The Director of
15 the Institute may utilize the Next Generation Air
16 Transportation Senior Policy Committee established
17 under section 710 of the Vision 100—Century of
18 Aviation Reauthorization Act (Public Law 108–176;
19 49 U.S.C. 40101 note) to coordinate its programs
20 with other Departments and agencies.

21 (d) PARTNERSHIPS.—In developing and carrying out
22 its plans, the Institute shall consult with the public and
23 ensure the participation of experts from the private sector
24 including representatives of commercial aviation, general
25 aviation, aviation labor groups, aviation research and de-

1 velopment entities, aircraft and air traffic control sup-
2 pliers, and the space industry.

3 **SEC. 1303. BASIC RESEARCH ENHANCEMENT.**

4 (a) IN GENERAL.—The Administrator of the Na-
5 tional Aeronautics and Space Administration, the Director
6 of the National Science Foundation, the Secretary of En-
7 ergy, the Secretary of Defense, and Secretary of Com-
8 merce shall, to the extent practicable, coordinate basic and
9 fundamental research activities related to physical
10 sciences, technology, engineering and mathematics.

11 (b) ESTABLISHMENT OF BASIC RESEARCH EXECU-
12 TIVE COUNCIL.—In order to ensure effective application
13 of resources to basic science activity and to facilitate coop-
14 erative basic and fundamental research activities with
15 other governmental organizations, the Administrator of
16 the National Aeronautics and Space Administration shall
17 establish within the Administration a Basic Research Ex-
18 ecutive Council to oversee the distribution and manage-
19 ment of programs and resources engaged in support of
20 basic research activity.

21 (c) MEMBERSHIP.—The membership of the Basic Re-
22 search Executive Council shall consist of the most senior
23 agency official representing each of the following areas of
24 research:

25 (1) Space Science.

1 (2) Earth Science.

2 (3) Life and Microgravity Sciences.

3 (4) Aeronautical Research.

4 (d) LEADERSHIP.—The Basic Research Executive
5 Council shall be chaired by an individual appointed for
6 that purpose who shall have, as a minimum, a appropriate
7 graduate degree in a recognizable discipline in the physical
8 sciences, and appropriate experience in the conduct and
9 management of basic research activity. The Chairman of
10 the Council shall report directly to the Administrator of
11 the National Aeronautics and Space Administration.

12 (e) SUPPORTING RESOURCES AND PERSONNEL.—
13 The Chairman of the Basic Research Executive Council
14 shall be provided with adequate administrative staff sup-
15 port to conduct the activity and functions of the Council.

16 (f) DUTIES.—The Basic Research Executive Council
17 shall have, at minimum, the following duties:

18 (1) To establish criteria for the identification of
19 research activity as basic in nature.

20 (2) To establish, in consultation with the Office
21 of Science and Technology Policy, the National
22 Science Foundation, the National Academy of
23 Sciences, the National Institutes of Health, and
24 other appropriate external organizations, a
25 prioritization of fundamental research activity to be

1 conducted by the National Aeronautics and Space
2 Administration, to be reviewed and updated on an
3 annual basis, taking into consideration evolving na-
4 tional research priorities.

5 (3) To monitor, review, and evaluate all basic
6 research activity of the National Aeronautics and
7 Space Administration for compliance with basic re-
8 search priorities established under paragraph (2).

9 (4) To make recommendations to the Adminis-
10 trator of the National Aeronautics and Space Ad-
11 ministration regarding adjustments in the basic re-
12 search activities of the Administration to ensure con-
13 sistency with the research priorities established
14 under this section.

15 (5) To provide an annual report to the Com-
16 mittee on Commerce, Science, and Transportation of
17 the Senate and the Committee on Science of the
18 House of Representatives outlining the activities of
19 the Council during the preceding year and the status
20 of basic research activity within the Administration.
21 The initial such report, to serve as a baseline docu-
22 ment, shall be provided within 90 days after the es-
23 tablishment and initial operations of the Council.

1 **SEC. 1304. AGING WORKFORCE ISSUES PROGRAM.**

2 It is the sense of Congress that the Administrator
3 of the National Aeronautics and Space Administration
4 should implement a program to address aging work force
5 issues in aerospace that—

6 (1) documents technical and management expe-
7 riences before senior people leave the Administra-
8 tion, including—

9 (A) documenting lessons learned;

10 (B) briefing organizations;

11 (C) providing opportunities for archiving
12 lessons in a database; and

13 (D) providing opportunities for near-term
14 retirees to transition out early from their pri-
15 mary assignment in order to document their ca-
16 reer lessons learned and brief new employees
17 prior to their separation from the Administra-
18 tion;

19 (2) provides incentives for retirees to return
20 and teach new employees about their career lessons
21 and experiences; and

22 (3) provides for the development of an award to
23 recognize and reward outstanding senior employees
24 for their contributions to knowledge sharing.

1 **SEC. 1305. CONFORMING AMENDMENTS.**

2 Section 101(d) of the National Aeronautics and
3 Space Administration Authorization Act of 2005 (42
4 U.S.C. 16611(d)) is amended—

5 (1) by striking “and” after the semicolon in
6 paragraph (2)(B);

7 (2) by striking “Act.” in paragraph (2)(C) and
8 inserting “Act; and”;

9 (3) by adding at the end of paragraph (2) the
10 following:

11 “(D) the number and content of science
12 activities which are undertaken in support of
13 science missions described in subparagraph (A),
14 and the number and content of science activi-
15 ties which may be considered as fundamental,
16 or basic research, whether incorporated within
17 specific missions or conducted independently of
18 any specific mission.”; and

19 (4) by adding at the end of paragraph (3) the
20 following:

21 “(H) How NASA science activities can
22 best be structured to ensure that basic and fun-
23 damental research can be effectively maintained
24 and coordinated in response to national goals in
25 competitiveness and innovation, and in contrib-

1 uting to national scientific, technology, engi-
2 neering and mathematics leadership.”.

3 **SEC. 1306. FISCAL YEAR 2008 BASIC SCIENCE AND RE-**
4 **SEARCH FUNDING.**

5 Notwithstanding any other provision of law, the Ad-
6 ministrators of the National Aeronautics and Space Admin-
7 istration shall increase funding for basic science and re-
8 search, including for the Explorer Program, for fiscal year
9 2008 by \$160,000,000 by transferring such amount for
10 such purpose from accounts of the National Aeronautics
11 and Space Administration. The transfer shall be contin-
12 gent upon the availability of unobligated balances to the
13 National Aeronautics and Space Administration.

14 **TITLE IV—NATIONAL INSTITUTE**
15 **OF STANDARDS AND TECH-**
16 **NOLOGY**

17 **SEC. 1401. AUTHORIZATION OF APPROPRIATIONS.**

18 There are authorized to be appropriated to the Sec-
19 retary of Commerce for the use of the National Institute
20 of Standards and Technology—

21 (1) for fiscal year 2008, \$703,611,000, of
22 which \$115,000,000 shall be used for the Hollings
23 Manufacturing Extension Partnership Program;

1 (2) for fiscal year 2009, \$773,972,000, of
2 which \$122,005,000 shall be used for the Hollings
3 Manufacturing Extension Partnership Program;

4 (3) for fiscal year 2010, \$851,369,000, of
5 which \$131,766,000 shall be used for the Hollings
6 Manufacturing Extension Partnership Program; and

7 (4) for fiscal year 2011, \$936,506,000, of
8 which \$142,300,000 shall be used for the Hollings
9 Manufacturing Extension Partnership Program.

10 **SEC. 1402. AMENDMENTS TO THE STEVENSON-WYDLER**
11 **TECHNOLOGY INNOVATION ACT OF 1980.**

12 (a) IN GENERAL.—Section 5 of the Stevenson-
13 Wydler Technology Innovation Act of 1980 (15 U.S.C.
14 3704) is repealed.

15 (b) CONFORMING AMENDMENTS.—

16 (1) TITLE 5, UNITED STATES CODE.—Section
17 5314 of title 5, United States Code, is amended by
18 striking “Under Secretary of Commerce for Tech-
19 nology.”.

20 (2) DEFINITIONS.—Section 4 of the Stevenson-
21 Wydler Technology Innovation Act of 1980 (15
22 U.S.C. 3703) is amended—

23 (A) by striking paragraphs (1) and (3);
24 and

1 (B) by redesignating paragraphs (2)
2 through (13) as paragraphs (1) through (11),
3 respectively.

4 (3) REPEAL OF AUTHORIZATION.—Section
5 21(a) of the Stevenson-Wydler Technology Innova-
6 tion Act of 1980 (15 U.S.C. 3713(a)) is amended—

7 (A) in paragraph (1), by striking “sections
8 5, 11(g), and 16” and inserting “sections 11(g)
9 and 16”; and

10 (B) in paragraph (2), by striking
11 “\$500,000 is authorized only for the purpose of
12 carrying out the requirements of the Japanese
13 technical literature program established under
14 section 5(d) of this Act;”.

15 (4) HIGH-PERFORMANCE COMPUTING ACT OF
16 1991.—Section 208 of the High-Performance Com-
17 puting Act of 1991 (15 U.S.C. 5528) is amended by
18 striking subsection (c) and redesignating subsection
19 (d) as subsection (c).

20 (5) ASSISTIVE TECHNOLOGY ACT OF 1998.—
21 Section 6(b)(4)(B)(v) of the Assistive Technology
22 Act of 1998 (29 U.S.C. 3005(b)(4)(B)(v)) is amend-
23 ed by striking “the Technology Administration of
24 the Department of Commerce,” and inserting “the
25 National Institute of Standards and Technology,”.

1 **SEC. 1403. INNOVATION ACCELERATION.**

2 (a) PROGRAM.—In order to implement section 1202
3 of this Act, the Director of the National Institute of
4 Standards and Technology shall—

5 (1) establish a program linked to the goals and
6 objectives of the measurement laboratories, to be
7 known as the “Standards and Technology Accelera-
8 tion Research Program”, to support and promote in-
9 novation in the United States through high-risk,
10 high-reward research; and

11 (2) set aside, from funds available to the meas-
12 urement laboratories, an amount equal to not less
13 than 8 percent of the funds available to the Institute
14 each fiscal year for such Program.

15 (b) EXTERNAL FUNDING.—The Director shall ensure
16 that at least 80 percent of the funds available for such
17 Program shall be used to award competitive, merit-re-
18 viewed grants, cooperative agreements, or contracts to
19 public or private entities, including businesses and univer-
20 sities. In selecting entities to receive such assistance, the
21 Director shall ensure that the project proposed by an enti-
22 ty has scientific and technical merit and that any resulting
23 intellectual property shall vest in a United States entity
24 that can commercialize the technology in a timely manner.
25 Each external project shall involve at least one small or
26 medium-sized business and the Director shall give priority

1 to joint ventures between small or medium-sized busi-
2 nesses and educational institutions. Any grant shall be for
3 a period not to exceed 3 years.

4 (c) COMPETITIONS.—The Director shall solicit pro-
5 posals annually to address areas of national need for high-
6 risk, high-reward research, as identified by the Director.

7 (d) ANNUAL REPORT.—Each year the Director shall
8 issue an annual report describing the program’s activities,
9 including include a description of the metrics upon which
10 grant funding decisions were made in the previous fiscal
11 year, any proposed changes to those metrics, metrics for
12 evaluating the success of ongoing and completed grants,
13 and an evaluation of ongoing and completed grants. The
14 first annual report shall include best practices for manage-
15 ment of programs to stimulate high-risk, high-reward re-
16 search.

17 (e) ADMINISTRATIVE EXPENSES.—No more than 5
18 percent of the finding available to the program may be
19 used for administrative expenses.

20 (f) HIGH-RISK, HIGH-REWARD RESEARCH DE-
21 FINED.—In this section, the term “high-risk, high-reward
22 research” means research that—

23 (1) has the potential for yielding results with
24 far-ranging or wide-ranging implications;

1 (2) addresses critical national needs related to
2 measurement standards and technology; and

3 (3) is too novel or spans too diverse a range of
4 disciplines to fare well in the traditional peer review
5 process.

6 **SEC. 1404. MANUFACTURING EXTENSION.**

7 (a) **MANUFACTURING CENTER EVALUATION.**—Sec-
8 tion 25(c)(5) of the National Institute of Standards and
9 Technology Act (15 U.S.C. 278k(c)(5)) is amended by in-
10 serting “A Center that has not received a positive evalua-
11 tion by the evaluation panel shall be notified by the panel
12 of the deficiencies in its performance and shall be placed
13 on probation for one year, after which time the panel shall
14 reevaluate the Center. If the Center has not addressed the
15 deficiencies identified by the panel, or shown a significant
16 improvement in its performance, the Director shall con-
17 duct a new competition to select an operator for the Cen-
18 ter or may close the Center.” after “at declining levels.”.

19 (b) **FEDERAL SHARE.**—Section 25 of the National
20 Institute of Standards and Technology Act (15 U.S.C.
21 278k) is amended by striking subsection (d) and inserting
22 the following:

23 “(d) **ACCEPTANCE OF FUNDS.**—In addition to such
24 sums as may be appropriated to the Secretary and Direc-
25 tor to operate the Centers program, the Secretary and Di-

1 rector also may accept funds from other Federal depart-
2 ments and agencies and under section 2(c)(7) from the
3 private sector for the purpose of strengthening United
4 States manufacturing. Such funds from the private sector,
5 if allocated to a Center or Centers, shall not be considered
6 in the calculation of the Federal share of capital and an-
7 nual operating and maintenance costs under subsection
8 (c).”.

9 **SEC. 1405. EXPERIMENTAL PROGRAM TO STIMULATE COM-**
10 **PETITIVE TECHNOLOGY.**

11 (a) IN GENERAL.—The Director of the National In-
12 stitutes of Standards and Technology shall re-establish the
13 Experimental Program to Stimulate Competitive Tech-
14 nology. The purpose of the program shall be to strengthen
15 the technological competitiveness of those States that have
16 historically received less Federal research and development
17 funds than a majority of the States have received.

18 (b) ARRANGEMENTS.—In carrying out the program,
19 the Director shall cooperate with State, regional, or local
20 science and technology-based economic development orga-
21 nization and with representatives of small business firms
22 and other appropriate technology-based businesses.

23 (c) GRANTS AND COOPERATIVE AGREEMENTS.—In
24 carrying out the program, the Director may make grants
25 or enter into cooperative agreements to provide for—

- 1 (1) technology research and development;
- 2 (2) technology transfer from university re-
3 search;
- 4 (3) technology deployment and diffusion; and
- 5 (4) the strengthening of technological and inno-
6 vation capabilities through consortia comprised of—
 - 7 (A) technology-based small business firms;
 - 8 (B) industries and emerging companies;
 - 9 (C) institutions of higher education includ-
10 ing community colleges; and
 - 11 (D) State and local development agencies
12 and entities.

13 (d) REQUIREMENTS FOR MAKING AWARDS.—

14 (1) IN GENERAL.—In making awards under
15 this section, the Director shall ensure that the
16 awards are awarded on a competitive basis that in-
17 cludes a review of the merits of the activities that
18 are the subject of the award, giving special emphasis
19 to those projects which will increase the participa-
20 tion of women, Native Americans (including Native
21 Hawaiians and Alaska Natives), and underrep-
22 resented groups in science and technology.

23 (2) MATCHING REQUIREMENT.—The non-Fed-
24 eral share of the activities (other than planning ac-
25 tivities) carried out under an award under this sub-

1 section shall be not less than 50 percent of the cost
2 of those activities.

3 (e) CRITERIA FOR STATES.—The Director shall es-
4 tablish criteria for achievement by each State that partici-
5 pates in the program. Upon the achievement of all such
6 criteria, a State shall cease to be eligible to participate
7 in the program.

8 (f) COORDINATION.—To the extent practicable, in
9 carrying out this subsection, the Director shall coordinate
10 the program with other programs of the Department of
11 Commerce.

12 (g) REPORT.—

13 (1) IN GENERAL.—Not later than 90 days after
14 the date of enactment of this Act, the Director shall
15 prepare and submit to the Committee on Commerce,
16 Science, and Transportation of the Senate and the
17 Committee on Science of the House of Representa-
18 tives a report that meets the requirements of this
19 subsection.

20 (2) REQUIREMENTS FOR REPORT.—The report
21 required by this subsection shall contain—

22 (A) a description of the structure and pro-
23 cedures of the program;

24 (B) a management plan for the program;

1 (C) a description of the merit-based review
2 process to be used in the program;

3 (D) milestones for the evaluation of activi-
4 ties to be assisted under the program in fiscal
5 year 2008;

6 (E) an assessment of the eligibility of each
7 State that participates in the Experimental
8 Program to Stimulate Competitive Research of
9 the National Science Foundation to participate
10 in the program under this subsection; and

11 (F) the evaluation criteria with respect to
12 which the overall management and effectiveness
13 of the program will be evaluated.

14 **SEC. 1406. TECHNICAL AMENDMENTS TO THE NATIONAL IN-**
15 **STITUTE OF STANDARDS AND TECHNOLOGY**
16 **ACT AND OTHER TECHNICAL AMENDMENTS.**

17 (a) **RESEARCH FELLOWSHIPS.**—Section 18 of the
18 National Institute of Standards and Technology Act (15
19 U.S.C. 278g–1) is amended by striking “up to 1 per cen-
20 tum of the” in the first sentence.

21 (b) **FINANCIAL AGREEMENTS.**—

22 (1) **CLARIFICATION.**—Section 2(b)(4) of the
23 National Institute of Standards and Technology Act
24 (15 U.S.C. 272(b)(4)) is amended by inserting “and

1 grants and cooperative agreements,” after “arrange-
2 ments,”.

3 (2) MEMBERSHIPS.—Section 2(c) of the Na-
4 tional Institute of Standards and Technology Act
5 (15 U.S.C. 272(e)) is amended—

6 (A) by striking “and” after the semicolon
7 in paragraph (21);

8 (B) by redesignating paragraph (22) as
9 paragraph (23); and

10 (C) by inserting after paragraph (21) the
11 following:

12 “(22) notwithstanding subsection (b)(4) of this
13 section, sections 6301 through 6308 of title 31,
14 United States Code (commonly known as the
15 ‘Grants and Cooperative Agreements Act’), sections
16 3551 through 3556 of such title (commonly known
17 as the ‘Competition in Contracting Act’), and the
18 Federal Acquisition Regulations set forth in title 48,
19 Code of Federal Regulations, to expend appropriated
20 funds for National Institute of Standards and Tech-
21 nology memberships in scientific organizations, reg-
22 istration fees for attendance at conferences, and
23 sponsorship of conferences in furtherance of tech-
24 nology transfer; and”.

25 (c) OUTDATED SPECIFICATIONS.—

1 (1) REDEFINITION OF METRIC SYSTEM.—Sec-
2 tion 2 of the Act of July 28, 1866, entitled “An Act
3 to authorize the Use of the Metric System of
4 Weights and Measures” (15 U.S.C. 205; 14 Stat.
5 339) is amended to read as follows:

6 **“SEC. 2. METRIC SYSTEM DEFINED.**

7 “The metric system of measurement shall be defined
8 as the International System of Units as established in
9 1960, and subsequently maintained, by the General Con-
10 ference of Weights and Measures, and as interpreted or
11 modified for the United States by the Secretary of Com-
12 merce.”.

13 (2) REPEAL OF REDUNDANT AND OBSOLETE
14 AUTHORITY.—The Act of July 21, 1950, entitled,
15 “An Act To redefine the units and establish the
16 standards of electrical and photometric measure-
17 ments of 1950” (15 U.S.C. 223) is hereby repealed.

18 (3) IDAHO TIME ZONE.—Section 3 of the Act of
19 March 19, 1918, (commonly known as the “Calder
20 Act”) (15 U.S.C. 264) is amended—

21 (A) in the section heading, by striking
22 “**third zone**” and inserting “**fourth zone**”;
23 and

24 (B) by striking “third zone” and inserting
25 “fourth zone”.

1 (4) STANDARD TIME.—Section 1 of the Act of
2 March 19, 1918, (commonly known as the “Calder
3 Act”) (15 U.S.C. 261) is amended—

4 (A) by inserting “(a) IN GENERAL.—” be-
5 fore “For the purpose”;

6 (B) by striking the second sentence and
7 the extra period after it and inserting “Except
8 as provided in section 3(a) of the Uniform Time
9 Act of 1966 (15 U.S.C. 260a), the standard
10 time of the first zone shall be Coordinated Uni-
11 versal Time retarded by 4 hours; that of the
12 second zone retarded by 5 hours; that of the
13 third zone retarded by 6 hours; that of the
14 fourth zone retarded by 7 hours; that of the
15 fifth zone retarded 8 hours; that of the sixth
16 zone retarded by 9 hours; that of the seventh
17 zone retarded by 10 hours; that of the eighth
18 zone retarded by 11 hours; and that of the
19 ninth zone shall be Coordinated Universal Time
20 advanced by 10 hours.”; and

21 (C) by adding at the end the following:

22 “(b) COORDINATED UNIVERSAL TIME DEFINED.—In
23 this section, the term ‘Coordinated Universal Time’ means
24 the time scale maintained through the General Conference
25 of Weights and Measures and interpreted or modified for

1 the United States by the Secretary of Commerce in coordi-
 2 nation with the Secretary of the Navy.”.

3 (d) NON-ENERGY INVENTIONS PROGRAM.—Section
 4 27 of the National Institute of Standards and Technology
 5 Act (15 U.S.C. 278m) is repealed.

6 **SEC. 1407. CLARIFICATION OF ELIGIBLE CONTRIBUTIONS**
 7 **IN CONNECTION WITH REGIONAL CENTERS**
 8 **RESPONSIBLE FOR IMPLEMENTING THE OB-**
 9 **JECTIVES OF THE HOLLINGS MANUFAC-**
 10 **TURING PARTNERSHIP PROGRAM.**

11 Paragraph (3) of section 25(c) of the National Insti-
 12 tute of Standards and Technology Act (15 U.S.C.
 13 278k(c)(3)) is amended to read as follows:

14 “(3) FINANCIAL SUPPORT.—

15 “(A) IN GENERAL.—Any nonprofit institu-
 16 tion, or group thereof, or consortia of nonprofit
 17 institutions, including entities existing on Au-
 18 gust 23, 1988, may submit to the Secretary an
 19 application for financial support under this sub-
 20 section, in accordance with the procedures es-
 21 tablished by the Secretary and published in the
 22 Federal Register under paragraph (2).

23 “(B) CENTER CONTRIBUTIONS.—In order
 24 to receive assistance under this section, an ap-
 25 plicant for financial assistance under subpara-

1 graph (A) shall provide adequate assurances
2 that non-Federal assets obtained from the ap-
3 plicant and the applicant's partnering organiza-
4 tions will be used as a funding source to meet
5 not less than 50 percent of the costs incurred
6 for the first 3 years and an increasing share for
7 each of the last 3 years. For purposes of the
8 preceding sentence, the costs incurred means
9 the costs incurred in connection with the activi-
10 ties undertaken to improve the management,
11 productivity, and technological performance of
12 small- and medium-sized manufacturing compa-
13 nies.

14 “(C) AGREEMENTS WITH OTHER ENTI-
15 TIES.—In meeting the 50 percent requirement,
16 it is anticipated that a Center will enter into
17 agreements with other entities such as private
18 industry, universities, and State governments to
19 accomplish programmatic objectives and access
20 new and existing resources that will further the
21 impact of the Federal investment made on be-
22 half of small- and medium-sized manufacturing
23 companies. All non-Federal costs, contributed
24 by such entities and determined by a Center as
25 programmatically reasonable and allocable are

1 includable as a portion of the Center's contribu-
2 tion.

3 “(D) ALLOCATION OF LEGAL RIGHTS.—
4 Each applicant under subparagraph (A) shall
5 also submit a proposal for the allocation of any
6 legal right associated with any invention that
7 may result from an activity of a Center for
8 which such applicant receives financial assist-
9 ance under this section.”.

10 **TITLE V—OCEAN AND** 11 **ATMOSPHERIC PROGRAMS**

12 **SEC. 1501. OCEAN AND ATMOSPHERIC RESEARCH AND DE-** 13 **VELOPMENT PROGRAM.**

14 The Administrator of the National Oceanic and At-
15 mospheric Administration, in consultation with the Direc-
16 tor of the National Science Foundation and the Adminis-
17 trator of the National Aeronautics and Space Administra-
18 tion, shall establish a coordinated program of ocean, coast-
19 al, Great Lakes, and atmospheric research and develop-
20 ment, in collaboration with academic institutions and
21 other nongovernmental entities, that shall focus on the de-
22 velopment of advanced technologies and analytical meth-
23 ods that will promote United States leadership in ocean
24 and atmospheric science and competitiveness in the ap-
25 plied uses of such knowledge.

1 **SEC. 1502. NOAA OCEAN AND ATMOSPHERIC SCIENCE EDU-**
2 **CATION PROGRAMS.**

3 (a) **IN GENERAL.**—The Administrator of the Na-
4 tional Oceanic and Atmospheric Administration shall con-
5 duct, develop, support, promote, and coordinate formal
6 and informal educational activities at all levels to enhance
7 public awareness and understanding of ocean, coastal,
8 Great Lakes, and atmospheric science and stewardship by
9 the general public and other coastal stakeholders, includ-
10 ing underrepresented groups in ocean and atmospheric
11 science and policy careers. In conducting those activities,
12 the Administrator shall build upon the educational pro-
13 grams and activities of the agency.

14 (b) **NOAA SCIENCE EDUCATION PLAN.**—The Ad-
15 ministrator, appropriate National Oceanic and Atmos-
16 pheric Administration programs, ocean atmospheric
17 science and education experts, and interested members of
18 the public shall develop a science education plan setting
19 forth education goals and strategies for the Administra-
20 tion, as well as programmatic actions to carry out such
21 goals and priorities over the next 20 years, and evaluate
22 and update such plan every 5 years.

23 (c) **CONSTRUCTION.**—Nothing in this section may be
24 construed to affect the application of section 438 of the
25 General Education Provisions Act (20 U.S.C. 1232a) or

1 sections 504 and 508 of the Rehabilitation Act of 1973
2 (29 U.S.C. 794 and 794d).

3 **SEC. 1503. NOAA'S CONTRIBUTION TO INNOVATION.**

4 (a) PARTICIPATION IN INTERAGENCY ACTIVITIES.—
5 The National Oceanic and Atmospheric Administration
6 shall be a full participant in any interagency effort to pro-
7 mote innovation and economic competitiveness through
8 near-term and long-term basic scientific research and de-
9 velopment and the promotion of science, technology, engi-
10 neering, and mathematics education, consistent with the
11 agency mission, including authorized activities.

12 (b) HISTORIC FOUNDATION.—In order to carry out
13 the participation described in subsection (a), the Adminis-
14 trator of the National Oceanic and Atmospheric Adminis-
15 tration shall build on the historic role of the National Oce-
16 anic and Atmospheric Administration in stimulating excel-
17 lence in the advancement of ocean and atmospheric science
18 and engineering disciplines and in providing opportunities
19 and incentives for the pursuit of academic studies in
20 science, technology, engineering, and mathematics.

21 **SEC. 1504. NOAA ACCOUNTABILITY AND TRANSPARENCY.**

22 (a) REVIEW OF ACTIVITIES CARRIED OUT WITH
23 NOAA FUNDS.—

24 (1) REQUIREMENT FOR REVIEW.—The Inspec-
25 tor General of the Department of Commerce shall

1 conduct routine, independent reviews of the activities
2 carried out with grants or other financial assistance
3 made available by the Administrator of the National
4 Oceanic and Atmospheric Administration. Such re-
5 views shall include cost-benefit analysis of such ac-
6 tivities and reviews to determine if the goals of such
7 activities are being accomplished.

8 (2) AVAILABILITY TO THE PUBLIC.—The Ad-
9 ministrator shall make each review conducted pursu-
10 ant to paragraph (1) available to the public through
11 the website of the Administration not later than 60
12 days after the date such review is completed.

13 (b) PROHIBITION ON USE OF NOAA FUNDS FOR
14 MEETINGS.—No funds made available by the Adminis-
15 trator through a grant or contract may be used by the
16 person who received such grant or contract, including any
17 subcontractor to such person, for a banquet or conference,
18 other than a conference related to training or a routine
19 meeting with officers or employees of the Administration
20 to discuss an ongoing project or training.

21 (c) PROHIBITION ON CONFLICTS OF INTEREST.—
22 Each person who receives funds from the Administrator
23 through a grant or contract shall submit to the Adminis-
24 trator a certification stating that none of such funds will
25 be made available through a subcontract or in any other

1 manner to another person who has a financial interest or
2 other conflict of interest with the person who received such
3 funds from the Administrator.

4 **DIVISION B—DEPARTMENT OF** 5 **ENERGY**

6 **SEC. 2001. SHORT TITLE.**

7 This division may be cited as the “Protecting Amer-
8 ica’s Competitive Edge Through Energy Act” or the
9 “PACE–Energy Act”.

10 **SEC. 2002. DEFINITIONS.**

11 In this division:

12 (1) **DEPARTMENT.**—The term “Department”
13 means the Department of Energy.

14 (2) **INSTITUTION OF HIGHER EDUCATION.**—The
15 term “institution of higher education” has the
16 meaning given in section 101(a) of the Higher Edu-
17 cation Act of 1965 (20 U.S.C. 1001(a)).

18 (3) **NATIONAL LABORATORY.**—The term “Na-
19 tional Laboratory” has the meaning given the term
20 in section 2 of the Energy Policy Act of 2005 (42
21 U.S.C. 15801).

22 (4) **SECRETARY.**—The term “Secretary” means
23 the Secretary of Energy, acting through the Under
24 Secretary for Science appointed under section

1 202(b) of the Department of Energy Organization
2 Act (42 U.S.C. 7132(b)).

3 **SEC. 2003. MATHEMATICS, SCIENCE, AND ENGINEERING**
4 **EDUCATION AT THE DEPARTMENT OF EN-**
5 **ERGY.**

6 (a) SCIENCE EDUCATION PROGRAMS.—Section 3164
7 of the Department of Energy Science Education Enhance-
8 ment Act (42 U.S.C. 7381a) is amended—

9 (1) by redesignating subsections (b) through (d)
10 as subsections (c) through (e), respectively;

11 (2) by inserting after subsection (a) the fol-
12 lowing:

13 “(b) ORGANIZATION OF MATHEMATICS, SCIENCE,
14 AND ENGINEERING EDUCATION PROGRAMS.—

15 “(1) DIRECTOR OF MATHEMATICS, SCIENCE
16 AND ENGINEERING EDUCATION.—Notwithstanding
17 any other provision of law, the Secretary, acting
18 through the Under Secretary for Science (referred to
19 in this subsection as the ‘Under Secretary’), shall
20 appoint a Director of Mathematics, Science, and En-
21 gineering Education (referred to in this subsection
22 as the ‘Director’) with the principal responsibility for
23 administering mathematics, science, and engineering
24 education programs across all functions of the De-
25 partment.

1 “(2) QUALIFICATIONS.—The Director shall be
2 an individual, who by reason of professional back-
3 ground and experience, is specially qualified to ad-
4 vise the Under Secretary on all matters pertaining
5 to mathematics, science, and engineering education
6 at the Department.

7 “(3) DUTIES.—The Director shall—

8 “(A) oversee all mathematics, science, and
9 engineering education programs of the Depart-
10 ment;

11 “(B) represent the Department as the
12 principal interagency liaison for all mathe-
13 matics, science, and engineering education pro-
14 grams, unless otherwise represented by the Sec-
15 retary or the Under Secretary;

16 “(C) prepare the annual budget and advise
17 the Under Secretary on all budgetary issues for
18 mathematics, science, and engineering edu-
19 cation programs of the Department;

20 “(D) increase, to the maximum extent
21 practicable, the participation and advancement
22 of women and underrepresented minorities at
23 every level of science, technology, engineering,
24 and mathematics education; and

1 “(E) perform other such matters related to
2 mathematics, science, and engineering edu-
3 cation as are required by the Secretary or the
4 Under Secretary.

5 “(4) STAFF AND OTHER RESOURCES.—The
6 Secretary shall assign to the Director such personnel
7 and other resources as the Secretary considers nec-
8 essary to permit the Director to carry out the duties
9 of the Director.

10 “(5) ASSESSMENT.—

11 “(A) IN GENERAL.—The Secretary shall
12 offer to enter into a contract with the National
13 Academy of Sciences under which the National
14 Academy, not later than 5 years after, and not
15 later than 10 years after, the date of enactment
16 of this paragraph, shall assess the performance
17 of the mathematics, science, and engineering
18 education programs of the Department.

19 “(B) CONSIDERATIONS.—An assessment
20 under this paragraph shall be conducted taking
21 into consideration, where applicable, the effect
22 of mathematics, science, and engineering edu-
23 cation programs of the Department on student
24 academic achievement in math and science.

1 “(6) AUTHORIZATION OF APPROPRIATIONS.—

2 There are authorized to be appropriated such sums
3 as are necessary to carry out this subsection.”; and

4 (3) by striking subsection (d) (as redesignated
5 by paragraph (1)) and inserting the following:

6 “(d) MATHEMATICS, SCIENCE, AND ENGINEERING
7 EDUCATION FUND.—The Secretary shall establish a
8 Mathematics, Science, and Engineering Education Fund,
9 using not less than 0.3 percent of the amount made avail-
10 able to the Department for research, development, dem-
11 onstration, and commercial application for each fiscal
12 year, to carry out sections 3165, 3166, and 3167.”.

13 (b) CONSULTATION.—The Secretary shall—

14 (1) consult with the Secretary of Education re-
15 garding activities authorized under subpart B of the
16 Department of Energy Science Education Enhance-
17 ment Act (as added by subsection (d)(3)) to improve
18 mathematics and science education; and

19 (2) otherwise make available to the Secretary of
20 Education reports associated with programs author-
21 ized under that section.

22 (c) DEFINITION.—Section 3168 of the Department
23 of Energy Science Education Enhancement Act (42
24 U.S.C. 7381d) is amended by adding at the end the fol-
25 lowing:

1 “(5) NATIONAL LABORATORY.—The term ‘Na-
2 tional Laboratory’ has the meaning given the term
3 in section 2 of the Energy Policy Act of 2005 (42
4 U.S.C. 15801).”.

5 (d) MATHEMATICS, SCIENCE, AND ENGINEERING
6 EDUCATION PROGRAMS.—The Department of Energy
7 Science Education Enhancement Act (42 U.S.C. 7381 et
8 seq.) is amended—

9 (1) by inserting after section 3162 the fol-
10 lowing:

11 **“Subpart A—Science Education Enhancement”;**

12 (2) in section 3169, by striking “part” and in-
13 serting “subpart”; and

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

15 **“Subpart B—Mathematics, Science, and Engineering**

16 **Education Programs**

17 **“SEC. 3170. DEFINITIONS.**

18 “In this subpart:

19 “(1) DIRECTOR.—The term ‘Director’ means
20 the Director of Mathematics, Science, and Engineer-
21 ing Education.

22 “(2) NATIONAL LABORATORY.—The term ‘Na-
23 tional Laboratory’ has the meaning given the term
24 in section 2 of the Energy Policy Act of 2005 (42
25 U.S.C. 15801).

1 **“CHAPTER 1—ASSISTANCE FOR SPE-**
2 **cialty Schools for Mathematics**
3 **and Science**

4 **“SEC. 3171. SPECIALTY SCHOOLS FOR MATHEMATICS AND**
5 **SCIENCE.**

6 “(a) **PURPOSE.**—The purpose of this section is to
7 provide assistance to States to establish or expand public,
8 statewide specialty secondary schools that provide com-
9 prehensive mathematics and science (including engineer-
10 ing and technology) education to improve the academic
11 achievement of students in mathematics and science.

12 “(b) **DEFINITION OF SPECIALTY SCHOOL FOR MATH-**
13 **ematics and Science.**—In this chapter, the term ‘spe-
14 cialty school for mathematics and science’ means a public
15 secondary school (including a school that provides residen-
16 tial services to students) that—

17 “(1) serves students residing in the State in
18 which the school is located; and

19 “(2) offers to those students a high-quality,
20 comprehensive mathematics and science (including
21 engineering and technology) curriculum designed to
22 improve the academic achievement of students in
23 mathematics and science.

24 “(c) **GRANTS AUTHORIZED.**—

1 “(1) IN GENERAL.—From the amounts author-
2 ized under subsection (i), the Secretary, acting
3 through the Director, shall award grants, on a com-
4 petitive basis, to States in order to provide assist-
5 ance to the States for the costs of establishing or ex-
6 panding public, statewide specialty schools for math-
7 ematics and science.

8 “(2) RESOURCES.—The Director shall ensure
9 that appropriate resources of the Department, in-
10 cluding the National Laboratories, are available to
11 schools funded under this section in order to—

12 “(A) increase experiential, hands-on learn-
13 ing opportunities in mathematics, science, engi-
14 neering, and technology for students attending
15 such schools; and

16 “(B) provide ongoing professional develop-
17 ment opportunities for teachers employed at
18 such schools.

19 “(3) ASSISTANCE.—Consistent with sections
20 3165 and 3166, the Director shall make available
21 necessary funds for a program using scientific and
22 engineering staff of the National Laboratories, dur-
23 ing which the staff—

24 “(A) assists teachers in teaching courses at
25 the schools funded under this section;

1 “(B) uses National Laboratory scientific
2 equipment in teaching the courses; and

3 “(C) uses distance education and other
4 technologies to provide assistance described in
5 subparagraphs (A) and (B) to schools funded
6 under this section that are not located near the
7 National Laboratories.

8 “(4) RESTRICTION.—No State shall receive
9 funding for more than 1 specialty school for mathe-
10 matics and science for a fiscal year.

11 “(d) FEDERAL AND NON-FEDERAL SHARES.—

12 “(1) FEDERAL SHARE.—The Federal share of
13 the costs described in subsection (c)(1) shall not ex-
14 ceed 50 percent.

15 “(2) NON-FEDERAL SHARE.—The non-Federal
16 share of the costs described in subsection (c)(1) shall
17 be—

18 “(A) not less than 50 percent; and

19 “(B) provided from non-Federal sources,
20 in cash or in kind, fairly evaluated, including
21 services.

22 “(e) APPLICATION.—Each State desiring a grant
23 under this section shall submit an application to the Direc-
24 tor at such time, in such manner, and accompanied by

1 such information as the Director may require that
2 describes—

3 “(1) the process by which and selection criteria
4 with which the State will select and designate a
5 school as a specialty school for mathematics and
6 science in accordance with this section;

7 “(2) how the State will ensure that funds made
8 available under this section are used to establish or
9 expand a specialty school for mathematics and
10 science—

11 “(A) in accordance with the activities de-
12 scribed in subsection (g); and

13 “(B) that has the capacity to improve the
14 academic achievement of all students in all core
15 academic subjects, and particularly in mathe-
16 matics and science;

17 “(3) how the State will measure the extent to
18 which the school increases student academic achieve-
19 ment on State academic achievement standards in
20 mathematics, science, and, to the extent applicable,
21 technology and engineering;

22 “(4) the curricula and materials to be used in
23 the school;

1 “(5) the availability of funds from non-Federal
2 sources for the non-Federal share of the costs of the
3 activities authorized under this section; and

4 “(6) how the State will use technical assistance
5 and support from the Department, including the Na-
6 tional Laboratories, and other entities with experi-
7 ence and expertise in mathematics, science, tech-
8 nology, and engineering education, including institu-
9 tions of higher education.

10 “(f) DISTRIBUTION.—In awarding grants under this
11 section, the Director shall—

12 “(1) ensure a wide, equitable distribution
13 among States that propose to serve students from
14 urban and rural areas; and

15 “(2) provide equal consideration to States with-
16 out National Laboratories.

17 “(g) USES OF FUNDS.—

18 “(1) IN GENERAL.—A State that receives a
19 grant under this section shall use the funds made
20 available through the grant to—

21 “(A) employ proven strategies and meth-
22 ods for improving student learning and teaching
23 in mathematics, science, technology, and engi-
24 neering;

1 “(B) integrate into the curriculum of the
2 school comprehensive mathematics and science
3 education, including instruction and assess-
4 ments in mathematics, science, and to the ex-
5 tent applicable, technology and engineering that
6 are aligned with the State’s academic content
7 and student academic achievement standards
8 (within the meaning of section 1111 of the Ele-
9 mentary and Secondary Education Act of 1965
10 (20 U.S.C. 6311)), classroom management, pro-
11 fessional development, parental involvement,
12 and school management; and

13 “(C) provide high-quality and continuous
14 teacher and staff professional development.

15 “(2) SPECIAL RULE.—Grant funds under this
16 section may be used for activities described in para-
17 graph (1) only if the activities are directly related to
18 improving student academic achievement in mathe-
19 matics, science, and to the extent applicable, tech-
20 nology and engineering.

21 “(h) EVALUATION AND REPORT.—

22 “(1) STATE EVALUATION AND REPORT.—

23 “(A) EVALUATION.—Each State that re-
24 ceives a grant under this section shall develop
25 and carry out an evaluation and accountability

1 plan for the activities funded through the grant
2 that measures the impact of the activities, in-
3 cluding measurable objectives for improved stu-
4 dent academic achievement on State mathe-
5 matics, science, and, to the extent applicable,
6 technology and engineering assessments.

7 “(B) REPORT.—The State shall submit to
8 the Director a report containing the results of
9 the evaluation and accountability plan.

10 “(2) REPORT TO CONGRESS.—Not later than 2
11 years after the date of enactment of the PACE–En-
12 ergy Act, the Director shall submit a report to the
13 appropriate committees of Congress detailing the im-
14 pact of the activities assisted with funds made avail-
15 able under this section.

16 “(i) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to carry out this
18 section—

19 “(1) \$20,000,000 for fiscal year 2008;

20 “(2) \$30,000,000 for fiscal year 2009;

21 “(3) \$40,000,000 for fiscal year 2010; and

22 “(4) \$50,000,000 for fiscal year 2011.

1 **“CHAPTER 2—EXPERIENTIAL-BASED**
2 **LEARNING OPPORTUNITIES**

3 **“SEC. 3175. EXPERIENTIAL-BASED LEARNING OPPORTUNI-**
4 **TIES.**

5 “(a) **INTERNSHIPS AUTHORIZED.**—

6 “(1) **IN GENERAL.**—From the amounts author-
7 ized under subsection (f), the Secretary, acting
8 through the Director, shall establish a summer in-
9 ternship program for middle school and secondary
10 school students that shall—

11 “(A) provide the students with internships
12 at the National Laboratories;

13 “(B) promote experiential, hands-on learn-
14 ing in mathematics, science, technology, or en-
15 gineering; and

16 “(C) be of at least 2 weeks in duration.

17 “(2) **RESIDENTIAL SERVICES.**—The Director
18 may provide residential services to students partici-
19 pating in the Internship authorized under this chap-
20 ter.

21 “(b) **SELECTION CRITERIA.**—

22 “(1) **IN GENERAL.**—The Director shall establish
23 criteria to determine the sufficient level of academic
24 preparedness necessary for a student to be eligible
25 for an internship under this section.

1 “(2) PARTICIPATION.—The Director shall en-
2 sure the participation of students from a wide dis-
3 tribution of States, including States without Na-
4 tional Laboratories.

5 “(3) STUDENT ACHIEVEMENT.—The Director
6 may consider the academic achievement of middle
7 and secondary school students in determining eligi-
8 bility under this section, in accordance with sub-
9 section (1) and (2).

10 “(c) PRIORITY.—

11 “(1) IN GENERAL.—The Director shall give pri-
12 ority for an internship under this section to a stu-
13 dent who meets the eligibility criteria described in
14 subsection (b) and who attends a school—

15 “(A)(i) in which not less than 30 percent
16 of the children enrolled in the school are from
17 low-income families; or

18 “(ii) that is designated with a school locale
19 code of 6, 7, or 8, as determined by the Sec-
20 retary of Education; and

21 “(B) for which there is—

22 “(i) a high percentage of teachers who
23 are not teaching in the academic subject
24 areas or grade levels in which the teachers
25 were trained to teach;

1 “(ii) a high teacher turnover rate; or
2 “(iii) a high percentage of teachers
3 with emergency, provisional, or temporary
4 certification or licenses.

5 “(2) COORDINATION.—The Director shall con-
6 sult with the Secretary of Education in order to de-
7 termine whether a student meets the priority re-
8 quirements of this subsection.

9 “(d) OUTREACH AND EXPERIENTIAL-BASED PRO-
10 GRAMS FOR MINORITY STUDENTS.—

11 “(1) IN GENERAL.—The Secretary, acting
12 through the Director, in cooperation with Hispanic-
13 serving institutions, historically Black colleges and
14 universities, tribally controlled colleges and univer-
15 sities, Alaska Native- and Native Hawaiian-serving
16 institutions, and other minority-serving institutions
17 and nonprofit entities with substantial experience re-
18 lating to outreach and experiential-based learning
19 projects, shall establish outreach and experiential-
20 based learning programs that will encourage under-
21 represented minority students in kindergarten
22 through grade 12 to pursue careers in math, science,
23 and engineering.

24 “(2) COMMUNITY INVOLVEMENT.—The Sec-
25 retary shall ensure that the programs established

1 under paragraph (1) involve, to the maximum extent
2 practicable—

3 “(A) participation by parents and edu-
4 cators; and

5 “(B) the establishment of partnerships
6 with business organizations and appropriate
7 Federal, State, and local agencies.

8 “(3) DISTRIBUTION.—The Secretary shall en-
9 sure that the programs established under paragraph
10 (1) are located in diverse geographic regions of the
11 United States, to the maximum extent practicable.

12 “(e) EVALUATION AND ACCOUNTABILITY PLAN.—
13 The Director shall develop an evaluation and account-
14 ability plan for the activities funded under this chapter
15 that objectively measures the impact of the activities.

16 “(f) AUTHORIZATION OF APPROPRIATIONS.—There
17 is authorized to be appropriated to carry out this section
18 \$15,000,000 for each of fiscal years 2008 through 2011.

1 **“CHAPTER 3—NATIONAL LABORATORIES**
2 **CENTERS OF EXCELLENCE IN MATHE-**
3 **MATICS, SCIENCE, TECHNOLOGY, AND**
4 **ENGINEERING EDUCATION**

5 **“SEC. 3181. NATIONAL LABORATORIES CENTERS OF EXCEL-**
6 **LENCE IN MATHEMATICS, SCIENCE, TECH-**
7 **NOLOGY, AND ENGINEERING EDUCATION.**

8 “(a) DEFINITION OF HIGH-NEED PUBLIC SEC-
9 ONDARY SCHOOL.—In this chapter, the term ‘high-need
10 public secondary school’ means a secondary school—

11 “(1) with a high concentration of low-income
12 individuals (as defined in section 1707 of the Ele-
13 mentary and Secondary Education Act of 1965 (20
14 U.S.C. 6537)); or

15 “(2) designated with a school locale code of 6,
16 7, or 8, as determined by the Secretary of Edu-
17 cation.

18 “(b) ESTABLISHMENT.—The Secretary shall estab-
19 lish at each of the National Laboratories a program to
20 support a Center of Excellence in Mathematics, Science,
21 Technology, and Engineering at 1 high-need public sec-
22 ondary school located in the region of the National Lab-
23 oratory to provide assistance in accordance with sub-
24 section (f).

1 “(c) PARTNERSHIP.—Each high-need public sec-
2 ondary school selected as a Center of Excellence shall form
3 a partnership with a department that provides training for
4 teachers and principals at an institution of higher edu-
5 cation for purposes of compliance with subsection (g).

6 “(d) SELECTION.—

7 “(1) IN GENERAL.—The Secretary, acting
8 through the Director, shall establish criteria to guide
9 the National Laboratories in selecting the sites of
10 the Centers of Excellence.

11 “(2) PROCESS.—The National Laboratories
12 shall select the sites of the Centers of Excellence
13 through an open, widely publicized, and competitive
14 process.

15 “(e) GOALS.—The Secretary shall establish goals and
16 performance assessments for each Center of Excellence
17 authorized under subsection (b).

18 “(f) ASSISTANCE.—Consistent with sections 3165
19 and 3166, the Director shall make available necessary
20 funds for a program using scientific and engineering staff
21 of the National Laboratories, during which the staff—

22 “(1) assists teachers in teaching courses at the
23 Centers of Excellence in Mathematics, Science,
24 Technology, and Engineering; and

1 “(2) uses National Laboratory scientific equip-
2 ment in the teaching of the courses.

3 “(g) SPECIAL RULE.—Each Center of Excellence
4 shall ensure—

5 “(1) provision of clinical practicum, student
6 teaching, or internship experiences for mathematics,
7 science, and technology teacher candidates as part of
8 its teacher preparation program;

9 “(2) provision of supervision and mentoring for
10 teacher candidates in the teacher preparation pro-
11 gram; and

12 “(3) to the maximum extent practicable, provi-
13 sion of professional development for veteran teachers
14 in the public secondary schools in the region.

15 “(h) EVALUATION.—The Secretary shall consider the
16 results of performance assessments required under sub-
17 section (e) in determining the contract award fee of a Na-
18 tional Laboratory management and operations contractor.

19 “(i) PLAN.—The Director shall—

20 “(1) develop an evaluation and accountability
21 plan for the activities funded under this chapter that
22 objectively measures the impact of the activities; and

23 “(2) disseminate information obtained from
24 those measurements.

1 “(j) NO EFFECT ON SIMILAR PROGRAMS.—Nothing
2 in this section displaces or otherwise affects any similar
3 program being carried out as of the date of enactment
4 of this subpart at any National Laboratory under any
5 other provision of law.

6 **“CHAPTER 4—SUMMER INSTITUTES**

7 **“SEC. 3185. SUMMER INSTITUTES.**

8 “(a) DEFINITIONS.—In this section:

9 “(1) ELIGIBLE PARTNER.—The term ‘eligible
10 partner’ means—

11 “(A) the mathematics, science, or engineer-
12 ing department at an institution of higher edu-
13 cation, acting in coordination with a depart-
14 ment at an institution of higher education that
15 provides training for teachers and principals; or

16 “(B) a nonprofit entity with expertise in
17 providing professional development for mathe-
18 matics, science, or technology teachers.

19 “(2) SUMMER INSTITUTE.—The term ‘summer
20 institute’ means an institute, conducted during the
21 summer, that—

22 “(A) is conducted for a period of not less
23 than 2 weeks;

24 “(B) includes, as a component, a program
25 that provides direct interaction between stu-

1 dents and faculty, including personnel of 1 or
2 more National Laboratories who have scientific
3 expertise; and

4 “(C) provides for follow-up training, dur-
5 ing the academic year, that is conducted in the
6 classroom.

7 “(b) SUMMER INSTITUTE PROGRAMS AUTHOR-
8 IZED.—

9 “(1) PROGRAMS AT THE NATIONAL LABORA-
10 TORIES.—The Secretary, acting through the Direc-
11 tor, shall establish or expand programs of summer
12 institutes at each of the National Laboratories to
13 provide additional training to strengthen the mathe-
14 matics, science, technology, and engineering teaching
15 skills of teachers employed at public schools for kin-
16 dergarten through grade 12, in accordance with the
17 activities authorized under subsections (c) and (d).

18 “(2) PROGRAMS WITH ELIGIBLE PARTNERS.—

19 “(A) IN GENERAL.—The Secretary, acting
20 through the Director, shall identify and provide
21 assistance to eligible partners to establish or ex-
22 pand programs of summer institutes that pro-
23 vide additional training to strengthen the math-
24 ematics, science, technology, and engineering
25 teaching skills of teachers employed at public

1 schools for kindergarten through grade 12, in
2 accordance with the activities authorized under
3 subsections (c) and (d).

4 “(B) ASSISTANCE.—Consistent with sec-
5 tions 3165 and 3166, the Director shall make
6 available necessary funds for a program using
7 scientific and engineering staff of the National
8 Laboratories, during which the staff—

9 “(i) assists in providing training to
10 teachers at summer institutes; and

11 “(ii) uses National Laboratory sci-
12 entific equipment in the training.

13 “(C) LIMITATION OF AMOUNT.—To carry
14 out this paragraph, the Director may use not
15 more than 50 percent of the amounts author-
16 ized under subsection (h) for a fiscal year.

17 “(c) REQUIRED ACTIVITIES.—Each program author-
18 ized under subsection (b) shall—

19 “(1) create opportunities for enhanced and on-
20 going professional development for teachers that im-
21 proves the mathematics, science, technology, and en-
22 gineering content knowledge of such teachers;

23 “(2) include material pertaining to recent devel-
24 opments in mathematics, science, technology, and
25 engineering pedagogy;

1 “(3) provide training on the use and integration
2 of technology in the classroom;

3 “(4) directly relate to the curriculum and aca-
4 demic areas in which the teachers provide instruc-
5 tion;

6 “(5) enhance the ability of the teachers to un-
7 derstand and use the challenging State academic
8 content standards for mathematics, science, and, to
9 the extent applicable, technology and engineering
10 and to select appropriate curricula;

11 “(6) train teachers to use curricula that are—

12 “(A) based on scientific research;

13 “(B) aligned with challenging State aca-
14 demic content standards; and

15 “(C) object-centered, experiment-oriented,
16 and concept- and content-based;

17 “(7) provide professional development activities,
18 including supplemental and follow-up activities; and

19 “(8) allow for the exchange of best practices
20 among the participants.

21 “(d) PERMISSIBLE ACTIVITIES.—A program author-
22 ized under subsection (b) may include—

23 “(1) a program that provides teachers with op-
24 portunities to work under the guidance of experi-
25 enced teachers and college faculty;

1 “(2) instruction in the use and integration of
2 data and assessments to inform and instruct class-
3 room practice; and

4 “(3) extended master teacher programs.

5 “(e) PRIORITY.—To the maximum extent practicable,
6 the Director shall ensure that each summer institute pro-
7 gram authorized under subsection (b) provides training
8 to—

9 “(1) teachers from a wide range of school dis-
10 tricts;

11 “(2) teachers from disadvantaged school dis-
12 tricts; and

13 “(3) teachers from groups underrepresented in
14 the fields of mathematics, science, technology, and
15 engineering teaching, including women and members
16 of minority groups.

17 “(f) COORDINATION AND CONSULTATION.—The Di-
18 rector shall consult and coordinate with the Secretary of
19 Education and the Director of the National Science Foun-
20 dation regarding the implementation of the programs au-
21 thorized under subsection (b).

22 “(g) EVALUATION AND ACCOUNTABILITY PLAN.—

23 “(1) IN GENERAL.—The Director shall develop
24 an evaluation and accountability plan for the activi-

1 ties funded under this section that measures the im-
2 pact of the activities.

3 “(2) CONTENTS.—The evaluation and account-
4 ability plan shall include—

5 “(A) measurable objectives to increase the
6 number of mathematics, science, and technology
7 teachers who participate in the summer insti-
8 tutes involved; and

9 “(B) measurable objectives for improved
10 student academic achievement on State mathe-
11 matics, science, and to the extent applicable,
12 technology and engineering assessments.

13 “(3) REPORT TO CONGRESS.—The Secretary
14 shall submit to Congress with the annual budget
15 submission of the Secretary a report on how the ac-
16 tivities assisted under this section improve the math-
17 ematics, science, technology, and engineering teach-
18 ing skills of participating teachers.

19 “(h) AUTHORIZATION OF APPROPRIATIONS.—There
20 are authorized to be appropriated to carry out this
21 section—

22 “(1) \$25,000,000 for fiscal year 2008;

23 “(2) \$40,000,000 for fiscal year 2009;

24 “(3) \$50,000,000 for fiscal year 2010; and

25 “(4) \$75,000,000 for fiscal year 2011.

1 **“CHAPTER 5—NUCLEAR SCIENCE**
2 **EDUCATION**

3 **“SEC. 3191. NUCLEAR SCIENCE TALENT EXPANSION PRO-**
4 **GRAM FOR INSTITUTIONS OF HIGHER EDU-**
5 **CATION.**

6 “(a) PURPOSES.—The purposes of this section are—

7 “(1) to address the decline in the number of
8 and resources available to nuclear science programs
9 of institutions of higher education; and

10 “(2) to increase the number of graduates with
11 degrees in nuclear science, an area of strategic im-
12 portance to the economic competitiveness and energy
13 security of the United States.

14 “(b) DEFINITION OF NUCLEAR SCIENCE.—In this
15 section, the term ‘nuclear science’ includes—

16 “(1) nuclear science;

17 “(2) nuclear engineering;

18 “(3) nuclear chemistry;

19 “(4) radio chemistry; and

20 “(5) health physics.

21 “(c) ESTABLISHMENT.—The Secretary, acting
22 through the Director, shall establish in accordance with
23 this section a program to expand and enhance institution
24 of higher education nuclear science educational capabili-
25 ties.

1 “(d) NUCLEAR SCIENCE PROGRAM EXPANSION
2 GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—

3 “(1) IN GENERAL.—The Secretary, acting
4 through the Director, shall award up to 3 competi-
5 tive grants for each fiscal year to institutions of
6 higher education that establish new academic degree
7 programs in nuclear science.

8 “(2) ELIGIBILITY.—To be eligible for a grant
9 under this subsection, an applicant shall partner
10 with a National Laboratory or other eligible nuclear-
11 related entity, as determined by the Secretary.

12 “(3) CRITERIA.—Criteria for a grant awarded
13 under this subsection shall be based on—

14 “(A) the potential to attract new students
15 to the program;

16 “(B) academic rigor; and

17 “(C) the ability to offer hands-on learning
18 opportunities.

19 “(4) DURATION AND AMOUNT.—

20 “(A) DURATION.—A grant under this sub-
21 section shall be 5 years in duration.

22 “(B) AMOUNT.—An institution of higher
23 education that receives a grant under this sub-
24 section shall be eligible for up to \$1,000,000 for
25 each year of the grant period.

1 “(5) USE OF FUNDS.—An institution of higher
2 education that receives a grant under this subsection
3 may use the grant to—

4 “(A) recruit and retain new faculty;

5 “(B) develop core and specialized course
6 content;

7 “(C) encourage collaboration between fac-
8 ulty and researchers in the nuclear science field;
9 or

10 “(D) support outreach efforts to recruit
11 students.

12 “(e) NUCLEAR SCIENCE COMPETITIVENESS GRANTS
13 FOR INSTITUTIONS OF HIGHER EDUCATION.—

14 “(1) IN GENERAL.—The Secretary, acting
15 through the Director shall award up to 10 competi-
16 tive grants for each fiscal year to institutions of
17 higher education with existing academic degree pro-
18 grams that produce graduates in nuclear science.

19 “(2) CRITERIA.—Criteria for a grant awarded
20 under this subsection shall be based on the potential
21 for increasing the number and academic quality of
22 graduates in the nuclear sciences who enter into ca-
23 reers in nuclear-related fields.

24 “(3) DURATION AND AMOUNT.—

1 “(A) DURATION.—A grant under this sub-
2 section shall be 5 years in duration.

3 “(B) AMOUNT.—An institution of higher
4 education that receives a grant under this sub-
5 section shall be eligible for up to \$500,000 for
6 each year of the grant period.

7 “(4) USE OF FUNDS.—An institution of higher
8 education that receives a grant under this subsection
9 may use the grant to—

10 “(A) increase the number of graduates in
11 nuclear science that enter into careers in the
12 nuclear science field;

13 “(B) enhance the teaching of advanced nu-
14 clear technologies;

15 “(C) aggressively pursue collaboration op-
16 portunities with industry and National Labora-
17 tories;

18 “(D) bolster or sustain nuclear infrastruc-
19 ture and research facilities of the institution of
20 higher education, such as research and training
21 reactors or laboratories; and

22 “(E) provide tuition assistance and sti-
23 pends to undergraduate and graduate students.

24 “(f) AUTHORIZATION OF APPROPRIATIONS.—

1 “(1) NUCLEAR SCIENCE PROGRAM EXPANSION
 2 GRANTS FOR INSTITUTIONS OF HIGHER EDU-
 3 CATION.—There are authorized to be appropriated
 4 to carry out subsection (d)—

5 “(A) \$9,000,000 for fiscal year 2008;

6 “(B) \$13,000,000 for fiscal year 2009;

7 “(C) \$18,000,000 for fiscal year 2010; and

8 “(D) \$22,500,000 for fiscal year 2011.

9 “(2) NUCLEAR SCIENCE COMPETITIVENESS
 10 GRANTS FOR INSTITUTIONS OF HIGHER EDU-
 11 CATION.—There are authorized to be appropriated
 12 to carry out subsection (e)—

13 “(A) \$11,000,000 for fiscal year 2008;

14 “(B) \$16,500,000 for fiscal year 2009;

15 “(C) \$22,000,000 for fiscal year 2010; and

16 “(D) \$27,500,000 for fiscal year 2011.

17 **“CHAPTER 6—ADMINISTRATION**

18 **“SEC. 3195. MENTORING PROGRAM.**

19 “(a) IN GENERAL.—As part of the programs estab-
 20 lished under chapters 1, 3, and 4, the Director shall estab-
 21 lish a program to recruit and provide mentors for women
 22 and underrepresented minorities who are interested in ca-
 23 reers in mathematics, science, and engineering. The pro-
 24 gram shall pair mentors with women and minorities who
 25 are in programs of study at specialty schools for mathe-

1 matics and science, Centers of Excellence, and summer in-
2 stitutes established under chapters 1, 3, and 4, respec-
3 tively.

4 “(b) PROGRAM EVALUATION.—The Secretary shall
5 annually—

6 “(1) use metrics to evaluate the success of the
7 programs established under subsection (a); and

8 “(2) submit to Congress a report that describes
9 the results of each evaluation.”.

10 **“CHAPTER 7—NATIONAL ENERGY**
11 **EDUCATION DEVELOPMENT**

12 **“SEC. 3196. NATIONAL ENERGY EDUCATION DEVELOP-**
13 **MENT.**

14 “(a) PURPOSE.—The purpose of this section is to en-
15 able all students to reach or exceed grade-level academic
16 achievement standards and to enhance the knowledge of
17 the students of the science of energy, the sources of en-
18 ergy, the uses of energy in society, and the environmental
19 consequences and benefits of all energy sources and uses
20 by—

21 “(1) improving instruction in science related to
22 energy for students in kindergarten through grade 9
23 through the implementation of energy education pro-
24 grams and with the support of comprehensive

1 science education initiatives that are based on the
2 best available evidence of effectiveness; and

3 “(2) providing professional development and in-
4 structional leadership activities for teachers and, if
5 appropriate, for administrators and other school
6 staff, on the implementation of comprehensive math-
7 ematics initiatives designed—

8 “(A) to improve the understanding of stu-
9 dents of the scientific, economic, and environ-
10 mental impacts of energy;

11 “(B) to improve the knowledge of teachers,
12 administrators, and other school staff related to
13 the scientific content of energy;

14 “(C) to increase the use of effective in-
15 structional practices; and

16 “(D) to reflect science content that is con-
17 sistent with State academic achievement stand-
18 ards in mathematics described in section
19 1111(b) of the Elementary and Secondary Edu-
20 cation Act of 1965 (20 U.S.C. 6311(b)).

21 “(b) PROGRAM.—The Secretary (acting through the
22 Director) (referred to in this section as the ‘Secretary’)
23 shall provide grants to States to assist the States in estab-
24 lishing or expanding programs to enhance the quality of

1 science education in elementary schools with respect to
2 conventional and emerging energy sources and uses.

3 “(c) COORDINATION.—In carrying out this section,
4 the Secretary shall use and coordinate with existing State
5 and national programs that have a similar mission.

6 “(d) GRANTS.—The Secretary shall award grants, on
7 a competitive basis, under this section to States to pay
8 the Federal share of the costs of establishing or expanding
9 high-quality energy education curricula and programs.

10 “(e) PROGRAMS.—In carrying out this section, the
11 Secretary shall award grants to establish or expand pro-
12 grams that enhance—

13 “(1) the quality of science education in elemen-
14 tary schools with respect to conventional and emerg-
15 ing energy sources and uses; and

16 “(2) the understanding of students of the
17 science, economics, and environmental impacts of en-
18 ergy production and consumption.

19 “(f) FEDERAL AND NON-FEDERAL SHARES.—

20 “(1) FEDERAL SHARE.—The Federal share of
21 the costs of carrying out a program under this sec-
22 tion shall be 50 percent.

23 “(2) NON-FEDERAL SHARE.—The non-Federal
24 share of the costs of carrying out a program under
25 this section may be provided in the form of cash or

1 in-kind contributions, fairly evaluated, including
2 services.

3 “(g) DISTRIBUTION.—In awarding grants under this
4 section, the Secretary shall—

5 “(1) ensure a wide, equitable distribution of
6 grants among States that propose to serve students
7 from urban and rural areas; and

8 “(2) provide equal consideration to States with-
9 out National Laboratories.

10 “(h) USES OF FUNDS.—

11 “(1) IN GENERAL.—Subject to paragraph (2),
12 States, or other entities through States, that receive
13 grants under this section shall use the grant funds
14 to—

15 “(A) employ proven strategies and meth-
16 ods for improving student learning and teaching
17 regarding energy;

18 “(B) integrate into the curriculum of
19 schools comprehensive, science-based, energy
20 education, including instruction and assess-
21 ments that are aligned with—

22 “(i) the academic content and student
23 academic achievement standards of the
24 State (within the meaning of section 1111

1 of the Elementary and Secondary Edu-
2 cation Act of 1965 (20 U.S.C. 6311));

3 “(ii) classroom management;

4 “(iii) professional development;

5 “(iv) parental involvement; and

6 “(v) school management; and

7 “(C) provide high-quality and continuous
8 teacher and staff professional development.

9 “(2) REQUIREMENTS.—Grant funds under this
10 section may be used for activities described in para-
11 graph (1) only if the activities are directly related to
12 improving student academic achievement related
13 to—

14 “(A) the science of energy;

15 “(B) the sources of energy;

16 “(C) the uses of energy in society; and

17 “(D) the environmental consequences and
18 benefits of all energy sources and uses.

19 “(i) AUTHORIZATION OF APPROPRIATIONS.—There
20 are authorized to be appropriated to carry out this
21 section—

22 “(1) \$1,000,000 for each of fiscal years 2008
23 and 2009; and

24 “(2) \$2,000,000 for each of fiscal years 2010
25 and 2011.”.

1 **SEC. 2004. DEPARTMENT OF ENERGY EARLY-CAREER RE-**
2 **SEARCH GRANTS.**

3 (a) **PURPOSE.**—It is the purpose of this section to
4 authorize research grants in the Department for early-ca-
5 reer scientists and engineers for purposes of pursuing
6 independent research.

7 (b) **DEFINITION OF ELIGIBLE EARLY-CAREER RE-**
8 **SEARCHER.**—In this section, the term “eligible early-ca-
9 reer researcher” means an individual who—

10 (1) completed a doctorate or other terminal de-
11 gree not more than 10 years before the date of ap-
12 plication for a grant authorized under this section,
13 except as provided in subsection (c)(3); and

14 (2) has demonstrated promise in the field of
15 science, technology, engineering, mathematics, com-
16 puter science, or computational science.

17 (c) **GRANT PROGRAM AUTHORIZED.**—

18 (1) **IN GENERAL.**—The Secretary shall award
19 not less than 65 grants per year to outstanding eli-
20 gible early-career researchers to support the work of
21 such researchers in the Department, particularly at
22 the National Laboratories, or other federally-funded
23 research and development centers.

24 (2) **APPLICATION.**—An eligible early-career re-
25 searcher who desires to receive a grant under this
26 section shall submit to the Secretary an application

1 at such time, in such manner, and accompanied by
2 such information as the Secretary may require.

3 (3) WAIVER.—The Secretary may find eligible a
4 candidate who has completed a doctorate more than
5 10 years prior to the date of application if the can-
6 didate was unable to conduct research for a period
7 of time because of extenuating circumstances, in-
8 cluding military service or family responsibilities.

9 (4) DURATION AND AMOUNT.—

10 (A) DURATION.—A grant under this sec-
11 tion shall be 5 years in duration.

12 (B) AMOUNT.—An eligible early career-re-
13 searcher who receives a grant under this section
14 shall receive up to \$100,000 for each year of
15 the grant period.

16 (5) USE OF FUNDS.—An eligible early career-
17 researcher who receives a grant under this section
18 shall use the grant funds for basic research in nat-
19 ural sciences, engineering, mathematics, or computer
20 sciences at the Department, particularly the Na-
21 tional Laboratories, or other federally-funded re-
22 search and development center.

23 (6) AUTHORIZATION OF APPROPRIATIONS.—

24 There are authorized to be appropriated to carry out
25 this section—

- 1 (A) \$13,000,000 for fiscal year 2008;
- 2 (B) \$19,500,000 for fiscal year 2009;
- 3 (C) \$26,000,000 for fiscal year 2010; and
- 4 (D) \$32,500,000 for fiscal year 2011.

5 **SEC. 2005. ADVANCED RESEARCH PROJECTS AUTHORITY-**
6 **ENERGY.**

7 (a) DEFINITIONS.—In this section:

8 (1) ADVISORY BOARD.—The term “Advisory
9 Board” means the Advisory Board established under
10 subsection (d).

11 (2) AUTHORITY.—The term “Authority” means
12 the Advanced Research Projects Authority—Energy
13 established under subsection (b).

14 (3) DIRECTOR.—The term “Director” means
15 the Director of the Authority appointed under sub-
16 section (c)(1).

17 (4) ENERGY TECHNOLOGY.—The term “energy
18 technology” means technology, including carbon-neu-
19 tral technology, used for—

- 20 (A) fossil energy;
- 21 (B) carbon sequestration;
- 22 (C) nuclear energy;
- 23 (D) renewable energy;
- 24 (E) energy distribution; or
- 25 (F) energy efficiency technology.

1 (b) ESTABLISHMENT.—The Secretary shall establish
2 an Advanced Research Projects Authority-Energy to over-
3 come the long-term and high-risk technological barriers in
4 the development of energy technologies.

5 (c) DIRECTOR.—

6 (1) APPOINTMENT.—The Secretary shall ap-
7 point a Director of the Authority.

8 (2) QUALIFICATIONS.—The Director shall be an
9 individual who, by reason of professional background
10 and experience, is especially qualified to advise the
11 Secretary on matters pertaining to long-term, high-
12 risk programs to overcome long-term and high-risk
13 technological barriers to the development of energy
14 technologies.

15 (3) DUTIES.—The Director shall—

16 (A) employ such qualified technical staff as
17 are necessary to carry out the duties of the Au-
18 thority, including providing staff for the Advi-
19 sory Committee;

20 (B) serve as the selection official for pro-
21 posals relating to energy technologies that are
22 solicited within the Department;

23 (C) develop metrics to assist in developing
24 funding criteria and for assessing the success of
25 existing programs;

1 (D) terminate programs carried out under
2 this section that are not achieving the goals of
3 the programs; and

4 (E) perform such duties relating to long-
5 term and high-risk technological barriers in the
6 development of energy technologies as are de-
7 termined to be appropriate by the Secretary.

8 (d) ADVISORY BOARD.—

9 (1) APPOINTMENT.—The Secretary shall, con-
10 sistent with the Federal Advisory Committee Act (5
11 U.S.C. App.), establish, and appoint members to, an
12 Advisory Board to make recommendations to the
13 Secretary and the Director on actions necessary to
14 carry out this section.

15 (2) QUALIFICATIONS.—The Advisory Board
16 shall consist of individuals who, by reason of profes-
17 sional background and experience, are especially
18 qualified to advise the Secretary and the Director on
19 matters pertaining to long-term and high-risk tech-
20 nological barriers in the development of energy tech-
21 nologies.

22 (3) TERM.—A member of the Advisory Board
23 shall be appointed for a term of 5 years.

24 (4) INFORMATION.—Each fiscal year, individ-
25 uals who carry out energy technology programs of

1 the Department and staff of the Authority shall pro-
2 vide to the Advisory Board written proposals and
3 oral briefings on long-term and high-risk techno-
4 logical barriers that are critical to overcome for the
5 successful development of energy technologies.

6 (5) DUTIES.—Each fiscal year, the Advisory
7 Board shall—

8 (A) recommend to the Secretary and the
9 Director—

10 (i) in order of priority, proposals of
11 energy programs of the Department that
12 are critical to overcoming long-term and
13 high-risk technological barriers to enable
14 the successful development of energy tech-
15 nologies; and

16 (ii) additional programs not covered in
17 the proposals that are critical to over-
18 coming the barriers described in clause (i);
19 and

20 (B) based on the metrics described in sub-
21 section (c)(3)(C), make recommendations to the
22 Secretary and the Directory concerning whether
23 programs funded under this section are achiev-
24 ing the goals of the programs.

1 (e) REVIEW.—Not later than 1 year after the date
2 of enactment of this Act, the Secretary shall enter into
3 an agreement with the National Academy of Sciences
4 under which the Academy shall—

5 (1) conduct reviews during each of calendar
6 years 2010 and 2012 to determine the success of the
7 activities carried out under this section; and

8 (2) submit to Congress, the Secretary, and the
9 Director a report describing the results of each re-
10 view.

11 (f) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated such sums as are nec-
13 essary to carry out this section for each of fiscal years
14 2008 through 2011.

15 **SEC. 2006. AUTHORIZATION OF APPROPRIATIONS FOR THE**
16 **DEPARTMENT OF ENERGY FOR BASIC RE-**
17 **SEARCH.**

18 Section 971(b) of the Energy Policy Act of 2005 (42
19 U.S.C. 16311(b)) is amended—

20 (1) in paragraph (2), by striking “and” at the
21 end;

22 (2) in paragraph (3)—

23 (A) by striking “\$5,200,000,000” and in-
24 serting “\$4,800,000,000”; and

1 (B) by striking the period at the end and
2 inserting a semicolon; and

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

4 “(4) \$4,945,000,000 for fiscal year 2010; and

5 “(5) \$5,265,000,000 for fiscal year 2011.”.

6 **SEC. 2007. DISCOVERY SCIENCE AND ENGINEERING INNO-**
7 **VATION INSTITUTES.**

8 (a) **IN GENERAL.**—The Secretary shall establish dis-
9 tributed, multidisciplinary institutes (referred to in this
10 section as “Institutes”) centered at National Laboratories
11 to apply fundamental science and engineering discoveries
12 to technological innovations related to the missions of the
13 Department and the global competitiveness of the United
14 States.

15 (b) **TOPICAL AREAS.**—The Institutes shall support
16 scientific and engineering research and education activities
17 on critical emerging technologies determined by the Sec-
18 retary to be essential to global competitiveness, including
19 activities related to—

20 (1) sustainable energy technologies;

21 (2) multi-scale materials and processes;

22 (3) micro- and nano-engineering;

23 (4) computational and information engineering;

24 and

25 (5) genomics and proteomics.

1 (c) PARTNERSHIPS.—In carrying out this section, the
2 Secretary shall establish partnerships between the Insti-
3 tutes and—

4 (1) institutions of higher education to—

5 (A) train undergraduate and graduate en-
6 gineering and science students;

7 (B) develop innovative educational cur-
8 ricula; and

9 (C) conduct research within the topical
10 areas described in subsection (b);

11 (2) private industry to develop innovative tech-
12 nologies within the topical areas described in sub-
13 section (b);

14 (3) State and local governments to promote re-
15 gionally-based commercialization and entrepreneur-
16 ship; and

17 (4) financing entities to guide successful tech-
18 nology commercialization.

19 (d) MERIT-BASED SELECTION.—The selection of In-
20 stitutes under this section shall be merit-based and made
21 through an open, competitive selection process.

22 (e) RESTRICTION.—Not more than 3 Institutes shall
23 receive grants for a fiscal year.

24 (f) REVIEW.—The Secretary shall enter into an
25 agreement with the National Academy of Sciences under

1 which the Academy shall, not later than 3 and 6 years
2 after the date of enactment of this Act—

3 (1) review the performance of the Institutes
4 under this section; and

5 (2) submit to Congress and the Secretary a re-
6 port describing the results of the review.

7 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
8 authorized to be appropriated to carry out the activities
9 of each Institute selected under this section \$10,000,000
10 for each of fiscal years 2008 through 2011.

11 **SEC. 2008. PROTECTING AMERICA'S COMPETITIVE EDGE**

12 **(PACE) GRADUATE FELLOWSHIP PROGRAM.**

13 (a) DEFINITION OF ELIGIBLE STUDENT.—In this
14 section, the term “eligible student” means a student who
15 attends an institution of higher education that offers a
16 doctoral degree in a field relevant to a mission area of
17 the Department.

18 (b) ESTABLISHMENT.—The Secretary shall establish
19 a graduate fellowship program for eligible students pur-
20 suing a doctoral degree in a mission area of the Depart-
21 ment.

22 (c) SELECTION.—

23 (1) IN GENERAL.—The Secretary shall award
24 fellowships to eligible students under this section
25 through a competitive merit review process (involv-

1 ing written and oral interviews) that will result in a
2 wide distribution of awards throughout the United
3 States.

4 (2) CRITERIA.—The Secretary shall establish
5 selection criteria for awarding fellowships under this
6 section that require an eligible student to—

7 (A) pursue a field of science or engineering
8 of importance to the mission area of the De-
9 partment;

10 (B) rank in the upper 10 percent of the
11 class of the eligible student;

12 (C) demonstrate to the Secretary—

13 (i) the capacity to understand tech-
14 nical topics related to the fellowship that
15 can be derived from the first principles of
16 the technical topics;

17 (ii) imagination and creativity;

18 (iii) leadership skills in organizations
19 or intellectual endeavors, demonstrated
20 through awards and past experience; and

21 (iv) excellent verbal and communica-
22 tion skills to explain, defend, and dem-
23 onstrate an understanding of technical
24 subjects related to the fellowship; and

1 (D) be a citizen or legal permanent resi-
2 dent of the United States.

3 (d) AWARDS.—

4 (1) AMOUNT.—A fellowship awarded under this
5 section shall—

6 (A) provide an annual living stipend; and

7 (B) cover—

8 (i) graduate tuition at an institution
9 of higher education; and

10 (ii) incidental expenses associated
11 with curricula and research at the institu-
12 tion of higher education (including books,
13 computers and software).

14 (2) DURATION.—A fellowship awarded under
15 this section shall be for a period of not greater than
16 5 years.

17 (3) PORTABILITY.—A fellowship awarded under
18 this section shall be portable with the fellow.

19 (e) ADMINISTRATION.—The Secretary (acting
20 through the Director of Mathematics, Science, and Engi-
21 neering Education)—

22 (1) shall administer the program established
23 under this section; and,

1 (2) may enter into a contract with a nonprofit
2 entity to administer the program, including the se-
3 lection and award of fellowships.

4 (f) AUTHORIZATION OF APPROPRIATIONS.—

5 (1) FELLOWSHIPS.—There are authorized to be
6 appropriated to award fellowships under this
7 section—

8 (A) \$9,300,000 for 200 fellowships for fis-
9 cal year 2008;

10 (B) \$14,500,000 for 300 fellowships for
11 fiscal year 2009 (including non-expiring fellow-
12 ships for prior fiscal years);

13 (C) \$25,000,000 for 500 fellowships for
14 fiscal year 2010 (including non-expiring fellow-
15 ships for prior fiscal years); and

16 (D) \$35,500,000 for 700 fellowships for
17 fiscal year 2011 (including non-expiring fellow-
18 ships for prior fiscal years).

19 (2) ADMINISTRATION.—There are authorized to
20 be appropriated for administrative expenses incurred
21 in carrying out this section—

22 (A) \$1,000,000 for fiscal year 2008;

23 (B) \$1,500,000 for fiscal year 2009;

24 (C) \$2,500,000 for fiscal year 2010; and

25 (D) \$3,500,000 for fiscal year 2011.

1 **SEC. 2009. TITLE IX COMPLIANCE.**

2 (a) IN GENERAL.—Not later than 180 days after the
3 date of enactment of this Act, the Secretary of Energy
4 shall submit to the Committee on Energy and Commerce
5 of the House of Representatives and the Committee on
6 Energy and Natural Resources of the Senate a report that
7 describes actions taken by the Department of Energy to
8 implement the recommendations in the report of the Gov-
9 ernment Accountability Office numbered 04–639.

10 (b) COMPLIANCE.—To comply with title IX of the
11 Education Amendments of 1972 (20 U.S.C. 1681 et seq.),
12 the Secretary of Energy shall annually conduct compliance
13 reviews of at least 2 recipients of Department of Energy
14 grants.

15 **SEC. 2010. HIGH-RISK, HIGH-REWARD RESEARCH.**

16 (a) DEFINITION OF HIGH-RISK, HIGH-REWARD RE-
17 SEARCH.—In this section, the term “high-risk, high re-
18 ward research” means research that—

19 (1) has the potential for yielding results with
20 far-ranging implications;

21 (2) is too novel or spans too diverse a range of
22 disciplines to fare well in the traditional peer review
23 process; and

24 (3) is supportive of the missions of the spon-
25 soring agency.

26 (b) ESTABLISHMENT OF GRANT PROGRAMS.—

1 (1) ENERGY GRANT PROGRAM.—The Secretary
2 shall establish a grant program to encourage the
3 conduct of high-risk, high-reward research at the
4 Department.

5 (2) GEOLOGICAL GRANT PROGRAM.—The Direc-
6 tor of the United States Geological Survey shall es-
7 tablish a grant program to encourage the conduct of
8 high-risk, high-reward research at the United States
9 Geological Survey.

10 **SEC. 2011. DISTINGUISHED SCIENTIST PROGRAM.**

11 (a) PURPOSE.—The purpose of this section is to pro-
12 mote scientific and academic excellence through collabora-
13 tions between institutions of higher education and the Na-
14 tional Laboratories.

15 (b) ESTABLISHMENT.—The Secretary shall establish
16 a program to support the joint appointment of distin-
17 guished scientists by institutions of higher education and
18 National Laboratories.

19 (c) QUALIFICATIONS.—Successful candidates under
20 this section shall be persons who, by reason of professional
21 background and experience, are able to bring international
22 recognition to the appointing institution of higher edu-
23 cation and National Laboratory in their field of scientific
24 endeavor.

1 (d) SELECTION.—A distinguished scientist appointed
2 under this section shall be selected through an open, com-
3 petitive process.

4 (e) APPOINTMENT.—

5 (1) INSTITUTION OF HIGHER EDUCATION.—An
6 appointment by an institution of higher education
7 under this section shall be filled within the tenure al-
8 lotment of the institution of higher education at a
9 minimum rank of professor.

10 (2) NATIONAL LABORATORY.—An appointment
11 by a National Laboratory under this section shall be
12 at the rank of the highest grade of distinguished sci-
13 entist or technical staff of the National Laboratory.

14 (f) DURATION.—An appointment under this section
15 shall be for 6 years, consisting of 2 3-year funding allot-
16 ments.

17 (g) USE OF FUNDS.—Funds made available under
18 this section may be used for—

19 (1) the salary of the distinguished scientist and
20 support staff;

21 (2) undergraduate, graduate, and post-doctoral
22 appointments;

23 (3) research-related equipment;

24 (4) professional travel; and

1 (5) such other requirements as the Director de-
2 termines are necessary to carry out the purpose of
3 the program.

4 (h) REVIEW.—

5 (1) IN GENERAL.—The appointment of a distin-
6 guished scientist under this section shall be reviewed
7 at the end of the first 3-year allotment for the dis-
8 tinguished scientist through an open peer-review
9 process to determine whether the appointment is
10 meeting the purpose of this section under subsection
11 (a).

12 (2) FUNDING.—Funding of the appointment of
13 the distinguished scientist for the second 3-year al-
14 lotment shall be determined based on the review con-
15 ducted under paragraph (1).

16 (i) COST SHARING.—To be eligible for assistance
17 under this section, an appointing institution of higher edu-
18 cation shall pay at least 50 percent of the total costs of
19 the appointment.

20 (j) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to carry out this
22 section—

23 (1) \$30,000,000 for fiscal year 2008 (to sup-
24 port up to 30 appointments under this section);

1 (2) \$60,000,000 for fiscal year 2009 (to sup-
2 port up to 60 such appointments); and

3 (3) \$100,000,000 for each of fiscal years 2010
4 and 2011 (to support up to 100 such appointments).

5 **DIVISION C—EDUCATION**

6 **SEC. 3001. FINDINGS.**

7 Congress makes the following findings:

8 (1) A well-educated population is essential to
9 retaining America’s competitiveness in the global
10 economy.

11 (2) The United States needs to build on and ex-
12 pand the impact of existing programs by taking ad-
13 ditional, well-coordinated steps to ensure that all
14 students are able to obtain the knowledge the stu-
15 dents need to obtain postsecondary education and
16 participate successfully in the workforce or the
17 Armed Forces.

18 (3) The next steps must be informed by inde-
19 pendent information on the effectiveness of current
20 programs in science, technology, engineering, and
21 mathematics education, and by identification of best
22 practices that can be replicated.

23 (4) Teacher preparation and elementary school
24 and secondary school programs and activities must
25 be aligned with the requirements of the Elementary

1 and Secondary Education Act of 1965 (20 U.S.C.
2 6301 et seq.) and the requirements of the Higher
3 Education Act of 1965 (20 U.S.C. 1001 et seq.).

4 (5) The ever increasing knowledge and skill de-
5 mands of the 21st century require that secondary
6 school preparation and requirements be better
7 aligned with the knowledge and skills needed to suc-
8 ceed in postsecondary education and the workforce,
9 and States need better data systems to track edu-
10 cational achievement from prekindergarten through
11 baccalaureate degrees.

12 **SEC. 3002. DEFINITIONS.**

13 (a) ESEA DEFINITIONS.—Unless otherwise specified
14 in this division, the terms used in this division have the
15 meanings given the terms in section 9101 of the Elemen-
16 tary and Secondary Education Act of 1965 (20 U.S.C.
17 7801).

18 (b) OTHER DEFINITIONS.—In this division:

19 (1) CRITICAL FOREIGN LANGUAGE.—The term
20 “critical foreign language” means a foreign language
21 that the Secretary determines, in consultation with
22 the heads of such Federal departments and agencies
23 as the Secretary determines appropriate, is critical
24 to the national security and economic competitive-
25 ness of the United States.

1 (2) SECRETARY.—The term “Secretary” means
2 the Secretary of Education.

3 **TITLE I—TEACHER ASSISTANCE**
4 **Subtitle A—Teachers for a**
5 **Competitive Tomorrow**

6 **SEC. 3111. PURPOSE.**

7 The purpose of this subtitle is—

8 (1) to develop and implement programs to pro-
9 vide integrated courses of study in mathematics,
10 science, engineering, or critical foreign languages,
11 and teacher education, that lead to a baccalaureate
12 degree with concurrent teacher certification;

13 (2) to develop and implement 2- or 3-year part-
14 time master’s degree programs in mathematics,
15 science, technology, or critical foreign language edu-
16 cation for teachers in order to enhance the teachers’
17 content knowledge and pedagogical skills; and

18 (3) to develop programs for professionals in
19 mathematics, science, or critical foreign language
20 education that lead to a master’s degree in teaching
21 that results in teacher certification.

22 **SEC. 3112. DEFINITIONS.**

23 In this subtitle:

24 (1) CHILDREN FROM LOW-INCOME FAMILIES.—
25 The term “children from low-income families”

1 means children described in section 1124(c)(1)(A) of
2 the Elementary and Secondary Education Act of
3 1965 (20 U.S.C. 6333(c)(1)(A)).

4 (2) ELIGIBLE RECIPIENT.—The term “eligible
5 recipient” means an institution of higher education
6 that receives grant funds under this subtitle on be-
7 half of a department of mathematics, engineering,
8 science, or a critical foreign language, or on behalf
9 of a department or school with a competency-based
10 degree program (in mathematics, engineering,
11 science, or a critical foreign language) that includes
12 teacher certification, for use in carrying out activi-
13 ties assisted under this subtitle.

14 (3) HIGH-NEED LOCAL EDUCATIONAL AGEN-
15 CY.—The term “high-need local educational agency”
16 means a local educational agency or educational
17 service agency—

18 (A)(i) that serves not fewer than 10,000
19 children from low-income families;

20 (ii) for which not less than 20 percent of
21 the children served by the agency are children
22 from low-income families; or

23 (iii) with a total of less than 600 students
24 in average daily attendance at the schools that
25 are served by the agency and all of whose

1 schools are designated with a school locale code
 2 of 6, 7, or 8, as determined by the Secretary;
 3 and

4 (B)(i) for which there is a high percentage
 5 of teachers providing instruction in academic
 6 subject areas or grade levels for which the
 7 teachers are not highly qualified; or

8 (ii) for which there is a high teacher turn-
 9 over rate or a high percentage of teachers with
 10 emergency, provisional, or temporary certifi-
 11 cation or licensure.

12 (4) HIGHLY QUALIFIED.—The term “highly
 13 qualified” has the meaning given such term in sec-
 14 tion 9101 of the Elementary and Secondary Edu-
 15 cation Act of 1965 (20 U.S.C. 7801) and, with re-
 16 spect to special education teachers, in section 602 of
 17 the Individuals with Disabilities Education Act (20
 18 U.S.C. 1401).

19 (5) PARTNERSHIP.—The term “partnership”
 20 means a partnership that—

21 (A) shall include—

22 (i) an eligible recipient;

23 (ii)(I)(aa) a department within the eli-
 24 gible recipient that provides a program of

1 study in mathematics, engineering, science,
2 or a critical foreign language; and

3 (bb) a school or department within
4 the eligible recipient that provides a teach-
5 er preparation program, or a 2-year insti-
6 tution of higher education that has a
7 teacher preparation offering or a dual en-
8 rollment program with the eligible recipi-
9 ent; or

10 (II) a department or school within the
11 eligible recipient with a competency-based
12 degree program (in mathematics, engineer-
13 ing, science, or a critical foreign language)
14 that includes teacher certification; and

15 (iii) not less than 1 high-need local
16 educational agency and a public school or
17 a consortium of public schools served by
18 the agency; and

19 (B) may include a nonprofit organization
20 that has the capacity to provide expertise or
21 support to meet the purposes of this subtitle.

22 (6) TEACHING SKILLS.—The term “teaching
23 skills” means the ability to—

24 (A) increase student achievement;

1 (B) effectively convey and explain academic
2 subject matter;

3 (C) employ strategies that—

4 (i) are based on scientifically based re-
5 search;

6 (ii) are specific to academic subject
7 matter; and

8 (iii) focus on the identification of, and
9 tailoring of academic instruction to, stu-
10 dents' specific learning needs, particularly
11 children with disabilities, students who are
12 limited English proficient, and students
13 who are gifted and talented;

14 (D) conduct ongoing assessment of student
15 learning;

16 (E) effectively manage a classroom; and

17 (F) communicate and work with parents
18 and guardians, and involve parents and guard-
19 ians in their children's education.

20 **SEC. 3113. PROGRAMS FOR BACCALAUREATE DEGREES IN**
21 **MATHEMATICS, SCIENCE, ENGINEERING, OR**
22 **CRITICAL FOREIGN LANGUAGES, WITH CON-**
23 **CURRENT TEACHER CERTIFICATION.**

24 (a) PROGRAM AUTHORIZED.—From the amounts
25 made available to carry out this section under section

1 3116(1) and not reserved under section 3115(d) for a fis-
2 cal year, the Secretary is authorized to award grants, on
3 a competitive basis, to eligible recipients to enable partner-
4 ships served by the eligible recipients to develop and imple-
5 ment programs to provide courses of study in mathe-
6 matics, science, engineering, or critical foreign languages
7 that—

- 8 (1) are integrated with teacher education; and
9 (2) lead to a baccalaureate degree with concur-
10 rent teacher certification.

11 (b) APPLICATION.—Each eligible recipient desiring a
12 grant under this section shall submit an application to the
13 Secretary at such time and in such manner as the Sec-
14 retary may require. Each application shall—

- 15 (1) describe the program for which assistance is
16 sought;
17 (2) describe how a department of mathematics,
18 science, engineering, or a critical foreign language
19 participating in the partnership will ensure signifi-
20 cant collaboration with a teacher preparation pro-
21 gram in the development of undergraduate degrees
22 in mathematics, science, engineering, or a critical
23 foreign language, with concurrent teacher certifi-
24 cation, including providing student teaching and
25 other clinical classroom experiences or how a depart-

1 ment or school participating in the partnership with
2 a competency-based degree program has ensured, in
3 the development of a baccalaureate degree program
4 in mathematics, science, engineering, or a critical
5 foreign language, the provision of concurrent teacher
6 certification, including providing student teaching
7 and other clinical classroom experiences;

8 (3) describe the high-quality research, labora-
9 tory, or internship experiences, integrated with
10 coursework, that will be provided under the pro-
11 gram;

12 (4) describe how members of groups that are
13 underrepresented in the teaching of mathematics,
14 science, technology, engineering, or critical foreign
15 languages will be encouraged to participate in the
16 program;

17 (5) describe how program participants will be
18 encouraged to teach in schools determined by the
19 partnership to be most in need, and what assistance
20 in finding employment in such schools will be pro-
21 vided;

22 (6) describe the ongoing activities and services
23 that will be provided to graduates of the program;

24 (7) describe how the activities of the partner-
25 ship will be coordinated with any activities funded

1 through other Federal grants, and how the partner-
2 ship will continue the activities assisted under the
3 program when the grant period ends;

4 (8) describe how the partnership will assess the
5 content knowledge and teaching skills of the pro-
6 gram participants; and

7 (9) provide any other information the Secretary
8 may reasonably require.

9 (c) AUTHORIZED ACTIVITIES.—

10 (1) IN GENERAL.—Each eligible recipient re-
11 ceiving a grant under this section shall use the grant
12 funds to enable a partnership to develop and imple-
13 ment a program to provide courses of study in math-
14 ematics, science, engineering, or a critical foreign
15 language that—

16 (A) are integrated with teacher education
17 programs that promote effective teaching skills;
18 and

19 (B) lead to a baccalaureate degree in
20 mathematics, science, engineering, or a critical
21 foreign language with concurrent teacher cer-
22 tification.

23 (2) PROGRAM REQUIREMENTS.—The program
24 shall—

1 (A) provide high-quality research, labora-
2 tory, or internship experiences for program par-
3 ticipants;

4 (B) provide student teaching or other clin-
5 ical classroom experiences that—

6 (i) are integrated with coursework;

7 and

8 (ii) lead to the participants' ability to
9 demonstrate effective teaching skills;

10 (C) if implementing a program in which
11 program participants are prepared to teach
12 mathematics, science, technology, or engineer-
13 ing courses, include strategies for improving
14 student literacy;

15 (D) encourage the participation of individ-
16 uals who are members of groups that are
17 underrepresented in the teaching of mathe-
18 matics, science, technology, engineering, or crit-
19 ical foreign languages;

20 (E) encourage participants to teach in
21 schools determined by the partnership to be
22 most in need, and actively assist the partici-
23 pants in finding employment in such schools;

24 (F) offer training in the use of and inte-
25 gration of educational technology;

1 (G) collect data regarding and evaluate,
2 using measurable objectives and benchmarks,
3 the extent to which the program succeeded in—

4 (i) increasing the percentage of highly
5 qualified mathematics, science, or critical
6 foreign language teachers, including in-
7 creasing the percentage of such teachers
8 teaching in those schools determined by
9 the partnership to be most in need;

10 (ii) improving student academic
11 achievement in mathematics, science, and
12 where applicable, technology and engineer-
13 ing;

14 (iii) increasing the number of students
15 in secondary schools enrolled in upper level
16 mathematics, science, and, where available,
17 technology and engineering courses; and

18 (iv) increasing the numbers of elemen-
19 tary school, middle school, and secondary
20 school students enrolled in and continuing
21 in critical foreign language courses;

22 (H) collect data on the employment place-
23 ment of all graduates of the program, including
24 information on how many graduates are teach-
25 ing and in what kinds of schools;

1 (I) provide ongoing activities and services
2 to graduates of the program who teach elemen-
3 tary school, middle school, or secondary school,
4 by—

5 (i) keeping the graduates informed of
6 the latest developments in their respective
7 academic fields; and

8 (ii) supporting the graduates of the
9 program who are employed in schools in
10 the local educational agency participating
11 in the partnership during the initial years
12 of teaching through—

13 (I) induction programs;

14 (II) promotion of effective teach-
15 ing skills; and

16 (III) providing opportunities for
17 regular professional development; and

18 (J) develop recommendations to improve
19 the teacher preparation program participating
20 in the partnership.

21 (d) ANNUAL REPORT.—Each eligible recipient receiv-
22 ing a grant under this section shall collect and report to
23 the Secretary annually such information as the Secretary
24 may reasonably require, including—

25 (1) the number of participants in the program;

1 (2) information on the academic majors of par-
 2 ticipating students;

3 (3) the race, gender, income, and disability sta-
 4 tus of program participants;

5 (4) the employment placement of program par-
 6 ticipants as teachers in schools determined by the
 7 partnership to be most in need;

8 (5) the extent to which the program succeeded
 9 in meeting the objectives and benchmarks described
 10 in subsection (c)(2)(G); and

11 (6) the data collected under subparagraphs (G)
 12 and (H) of subsection (c)(2).

13 (e) TECHNICAL ASSISTANCE.—From the funds made
 14 available under section 3116(1), the Secretary may pro-
 15 vide technical assistance to an eligible recipient developing
 16 a baccalaureate degree program with concurrent teacher
 17 certification, including technical assistance provided
 18 through a grant or contract awarded on a competitive
 19 basis to an institution of higher education or a technical
 20 assistance center.

21 **SEC. 3114. PROGRAMS FOR MASTER'S DEGREES IN MATHE-**
 22 **MATICS, SCIENCE, TECHNOLOGY, OR CRIT-**
 23 **ICAL FOREIGN LANGUAGES EDUCATION.**

24 (a) PROGRAM AUTHORIZED.—From the amounts
 25 made available to carry out this section under section

1 3116(2) and not reserved under section 3115(d) for a fis-
2 cal year, the Secretary is authorized to award grants, on
3 a competitive basis, to eligible recipients to enable the
4 partnerships served by the eligible recipients to develop
5 and implement—

6 (1) 2- or 3-year part-time master's degree pro-
7 grams in mathematics, science, technology, or crit-
8 ical foreign language education for teachers in order
9 to enhance the teacher's content knowledge and
10 teaching skills; or

11 (2) programs for professionals in mathematics,
12 science, engineering, or critical foreign language that
13 lead to a 1 year master's degree in teaching that re-
14 sults in teacher certification.

15 (b) APPLICATION.—Each eligible recipient desiring a
16 grant under this section shall submit an application to the
17 Secretary at such time and in such manner as the Sec-
18 retary may require. Each application shall describe—

19 (1) how a department of mathematics, science,
20 engineering, technology, or a critical foreign lan-
21 guage will ensure significant collaboration with a
22 teacher preparation program in the development of
23 the master's degree programs authorized under sub-
24 section (a), or how a department or school with a
25 competency-based degree program has ensured, in

1 the development of a master's degree program, the
2 provision of rigorous studies in mathematics,
3 science, or a critical foreign language that enhance
4 the teachers' content knowledge and teaching skills;

5 (2) the role of the local educational agency in
6 the partnership in developing and administering the
7 program and how feedback from the local edu-
8 cational agency, school, and participants will be used
9 to improve the program;

10 (3) how the program will help increase the per-
11 centage of highly qualified mathematics, science, or
12 critical foreign language teachers, including increas-
13 ing the percentage of such teachers teaching in
14 schools determined by the partnership to be most in
15 need;

16 (4) how the program will—

17 (A) improve student academic achievement
18 in mathematics, science, and, where applicable,
19 technology and engineering and increase the
20 number of students taking upper-level courses
21 in such subjects; or

22 (B) increase the numbers of elementary
23 school, middle school, and secondary school stu-
24 dents enrolled and continuing in critical foreign
25 language courses;

1 (5) how the program will prepare participants
2 to become more effective mathematics, science, or
3 critical foreign language teachers;

4 (6) how the program will prepare participants
5 to assume leadership roles in their schools;

6 (7) how teachers (or mathematics, science, or
7 critical language professionals) who are members of
8 groups that are underrepresented in the teaching of
9 mathematics, science, engineering, technology, or
10 critical foreign languages and teachers from schools
11 determined by the partnership to be most in need
12 will be encouraged to apply for and participate in
13 the program;

14 (8) the ongoing activities and services that will
15 be provided to graduates of the program;

16 (9) how the partnership will continue the activi-
17 ties assisted under the grant when the grant period
18 ends;

19 (10) how the partnership will assess, during the
20 program, the content knowledge and teaching skills
21 of the program participants; and

22 (11) methods to ensure applicants to the mas-
23 ter's degree program for professionals in mathe-
24 matics, science, or critical foreign language dem-
25 onstrate advanced knowledge in the relevant subject.

1 (c) AUTHORIZED ACTIVITIES.—Each eligible recipi-
2 ent receiving a grant under this section shall use the grant
3 funds to develop and implement a 2- or 3-year part-time
4 master’s degree program in mathematics, science, or crit-
5 ical foreign language education for teachers in order to
6 enhance the teachers’ content knowledge and teaching
7 skills, or programs for professionals in mathematics,
8 science, or critical foreign language that lead to a 1-year
9 master’s degree in teaching that results in teacher certifi-
10 cation. The program shall—

11 (1) promote effective teaching skills so that pro-
12 gram participants become more effective mathe-
13 matics, science, or critical foreign language teachers;

14 (2) prepare teachers to assume leadership roles
15 in their schools by participating in activities such as
16 teacher mentoring, development of curricula that in-
17 tegrate state of the art applications of mathematics,
18 science, technology, and engineering into the class-
19 room, working with school administrators in estab-
20 lishing in-service professional development of teach-
21 ers, and assisting in evaluating data and assess-
22 ments to improve student academic achievement;

23 (3) use high-quality research, laboratory, or in-
24 ternship experiences for program participants that
25 are integrated with coursework;

1 (4) provide student teaching or clinical class-
2 room experience;

3 (5) if implementing a program in which partici-
4 pants are prepared to teach mathematics or science
5 courses, provide strategies for improving student lit-
6 eracy;

7 (6) align the content knowledge in the master's
8 degree program with challenging student academic
9 achievement standards and challenging academic
10 content standards established by the State in which
11 the program is conducted;

12 (7) encourage the participation of—

13 (A) individuals who are members of groups
14 that are underrepresented in the teaching of
15 mathematics, science, engineering, technology,
16 or critical foreign languages;

17 (B) members of the Armed Forces who are
18 transitioning to civilian life; and

19 (C) teachers teaching in schools deter-
20 mined by the partnership to be most in need;

21 (8) offer tuition assistance, based on need, as
22 appropriate;

23 (9) create opportunities for enhanced and ongo-
24 ing professional development for teachers that im-

1 proves the mathematics and science content knowl-
2 edge and teaching skills of such teachers; and

3 (10) evaluate and report on the impact of the
4 program, in accordance with subsection (d).

5 (d) EVALUATION AND REPORT.—Each eligible recipi-
6 ent receiving a grant under this section shall evaluate,
7 using measurable objectives and benchmarks, and provide
8 an annual report to the Secretary regarding, the extent
9 to which the program assisted under this section suc-
10 ceeded in the following:

11 (1) Increasing the number and percentage of
12 mathematics, science, engineering, technology, or
13 critical foreign language teachers who have a mas-
14 ter's degree and meet 1 or more of the following re-
15 quirements:

16 (A) Are teaching in schools determined by
17 the partnership to be most in need, and taught
18 in such schools prior to participation in the pro-
19 gram.

20 (B) Are teaching in schools determined by
21 the partnership to be most in need, and did not
22 teach in such schools prior to participation in
23 the program.

1 (C) Are members of a group underrep-
2 resented in the teaching of mathematics,
3 science, or a critical foreign language.

4 (2) Bringing professionals in mathematics,
5 science, engineering, or critical foreign language into
6 the field of teaching.

7 (3) Retaining teachers who participate in the
8 program.

9 **SEC. 3115. GENERAL PROVISIONS.**

10 (a) DURATION OF GRANTS.—The Secretary shall
11 award each grant under this subtitle for a period of not
12 more than 5 years.

13 (b) MATCHING REQUIREMENT.—Each eligible recipi-
14 ent that receives a grant under this subtitle shall provide,
15 from non-Federal sources, an amount equal to 50 percent
16 of the amount of the grant (which may be provided in cash
17 or in kind) to carry out the activities supported by the
18 grant.

19 (c) SUPPLEMENT, NOT SUPPLANT.—Grant funds
20 provided under this subtitle shall be used to supplement,
21 and not supplant, other Federal or State funds.

22 (d) EVALUATION.—From amounts made available for
23 any fiscal year under section 3116, the Secretary shall re-
24 serve such sums as may be necessary—

1 (1) to provide for the conduct of an annual
2 independent evaluation, by grant or by contract, of
3 the activities assisted under this subtitle, which shall
4 include an assessment of the impact of the activities
5 on student academic achievement; and

6 (2) to prepare and submit an annual report on
7 the results of the evaluation described in paragraph
8 (1) to the Committee on Health, Education, Labor,
9 and Pensions of the Senate, the Committee on Edu-
10 cation and the Workforce of the House of Rep-
11 resentatives, and the Committees on Appropriations
12 of the Senate and House of Representatives.

13 **SEC. 3116. AUTHORIZATION OF APPROPRIATIONS.**

14 There are authorized to be appropriated to carry out
15 this section \$210,000,000 for fiscal year 2008, and such
16 sums as may be necessary for each of the 3 succeeding
17 fiscal years, of which—

18 (1) 57.1 percent shall be available to carry out
19 section 3113 for fiscal year 2008 and each suc-
20 ceeding fiscal year; and

21 (2) 42.9 percent shall be available to carry out
22 section 3114 for fiscal year 2008 and each suc-
23 ceeding fiscal year.

1 **Subtitle B—Advanced Placement**
2 **and International Baccalaureate**
3 **Programs**

4 **SEC. 3121. PURPOSE.**

5 It is the purpose of this subtitle—

6 (1) to raise academic achievement through Ad-
7 vanced Placement and International Baccalaureate
8 programs by increasing, by 70,000, over a 4-year pe-
9 riod beginning in 2008, the number of teachers serv-
10 ing high-need schools who are qualified to teach Ad-
11 vanced Placement or International Baccalaureate
12 courses in mathematics, science, and critical foreign
13 languages;

14 (2) to increase, to 700,000 per year, the num-
15 ber of students attending high-need schools who—

16 (A) take and score a 3, 4, or 5 on an Ad-
17 vanced Placement examination in mathematics,
18 science, or a critical foreign language adminis-
19 tered by the College Board; or

20 (B) achieve a passing score on an examina-
21 tion administered by the International Bacca-
22 laureate Organization in such a subject;

23 (3) to increase the availability of, and enroll-
24 ment in, Advanced Placement or International Bac-
25 calaureate courses in mathematics, science, and crit-

1 ical foreign languages, and pre-Advanced Placement
2 or pre-International Baccalaureate courses in such
3 subjects, in high-need schools; and

4 (4) to support statewide efforts to increase the
5 availability of, and enrollment in, Advanced Place-
6 ment or International Baccalaureate courses in
7 mathematics, science, and critical foreign languages,
8 and pre-Advanced Placement or pre-International
9 Baccalaureate courses in such subjects, in high-need
10 schools.

11 **SEC. 3122. DEFINITIONS.**

12 In this subtitle:

13 (1) **ADVANCED PLACEMENT OR INTERNATIONAL**
14 **BACCALAUREATE COURSE.**—The term “Advanced
15 Placement or International Baccalaureate course”
16 means a course of college-level instruction provided
17 to middle or secondary school students, terminating
18 in an examination administered by the College
19 Board or the International Baccalaureate Organiza-
20 tion, or another such examination approved by the
21 Secretary, or another highly rigorous, evidence-
22 based, postsecondary preparatory program termi-
23 nating in an examination administered by a nation-
24 ally recognized educational association.

1 (2) ELIGIBLE ENTITY.—The term “eligible enti-
2 ty” means—

3 (A) a State educational agency;

4 (B) a local educational agency; or

5 (C) a partnership consisting of—

6 (i) a national, regional, or statewide
7 nonprofit organization, with expertise and
8 experience in providing Advanced Place-
9 ment or International Baccalaureate serv-
10 ices; and

11 (ii) a State educational agency or
12 local educational agency.

13 (3) LOW-INCOME STUDENT.—The term “low-in-
14 come student” has the meaning given the term “low-
15 income individual” in section 1707(3) of the Ele-
16 mentary and Secondary Education Act of 1965 (20
17 U.S.C. 6537(3)).

18 (4) HIGH CONCENTRATION OF LOW-INCOME
19 STUDENTS.—The term “high concentration of low-
20 income students” has the meaning given the term in
21 section 1707(2) of the Elementary and Secondary
22 Education Act of 1965 (20 U.S.C. 6537(2)).

23 (5) HIGH-NEED LOCAL EDUCATIONAL AGEN-
24 CY.—The term “high-need local educational agency”

1 means a local educational agency or educational
2 service agency described in 3112(3)(A).

3 (6) HIGH-NEED SCHOOL.—The term “high-need
4 school” means a middle school or secondary school—

5 (A) with a pervasive need for Advanced
6 Placement or International Baccalaureate
7 courses in mathematics, science, or critical for-
8 eign languages, or for additional Advanced
9 Placement or International Baccalaureate
10 courses in such a subject; and

11 (B)(i) with a high concentration of low-in-
12 come students; or

13 (ii) designated with a school locale code of
14 6, 7 or 8, as determined by the Secretary.

15 **SEC. 3123. ADVANCED PLACEMENT AND INTERNATIONAL**
16 **BACCALAUREATE PROGRAMS.**

17 (a) PROGRAM AUTHORIZED.—From the amounts ap-
18 propriated under subsection (l), the Secretary is author-
19 ized to award grants, on a competitive basis, to eligible
20 entities to enable the eligible entities to carry out the au-
21 thorized activities described in subsection (g).

22 (b) DURATION OF GRANTS.—The Secretary may
23 award grants under this section for a period of not more
24 than 5 years.

1 (c) COORDINATION.—The Secretary shall coordinate
2 the activities carried out under this section with the activi-
3 ties carried out under section 1705 of the Elementary and
4 Secondary Education Act of 1965 (20 U.S.C. 6535).

5 (d) PRIORITY.—In awarding grants under this sec-
6 tion, the Secretary shall give priority to eligible entities
7 that—

8 (1) are part of a statewide strategy for increas-
9 ing the availability of Advanced Placement or Inter-
10 national Baccalaureate courses in mathematics,
11 science, and critical foreign languages, and pre-Ad-
12 vanced Placement or pre-International Bacca-
13 laureate courses in such subjects, in high-need
14 schools; and

15 (2) make Advanced Placement math, science,
16 and critical foreign language courses available to
17 students who are prepared for such work in earlier
18 grades than traditionally made available.

19 (e) EQUITABLE DISTRIBUTION.—The Secretary, to
20 the extent practicable, shall—

21 (1) ensure an equitable geographic distribution
22 of grants under this section among the States; and

23 (2) promote an increase in participation in Ad-
24 vanced Placement or International Baccalaureate

1 mathematics, science, and critical foreign language
2 courses and examinations in all States.

3 (f) APPLICATION.—

4 (1) IN GENERAL.—Each eligible entity desiring
5 a grant under this section shall submit an applica-
6 tion to the Secretary at such time, in such manner,
7 and containing such information as the Secretary
8 may reasonably require.

9 (2) CONTENTS.—The application shall, at a
10 minimum, include a description of—

11 (A) the goals and objectives for the
12 project, including—

13 (i) increasing the number of teachers
14 serving high-need schools who are qualified
15 to teach Advanced Placement or Inter-
16 national Baccalaureate courses in mathe-
17 matics, science, or critical foreign lan-
18 guages;

19 (ii) increasing the number of qualified
20 teachers serving high-need schools who are
21 teaching Advanced Placement or Inter-
22 national Baccalaureate courses in mathe-
23 matics, science, or critical foreign lan-
24 guages to students in the high-need
25 schools;

1 (iii) increasing the number of Ad-
2 vanced Placement or International Bacca-
3 laureate courses in mathematics, science,
4 and critical foreign languages that are
5 available to students attending high-need
6 schools; and

7 (iv) increasing the number of students
8 attending a high-need school, particularly
9 low-income students, who enroll in and
10 pass—

11 (I) Advanced Placement or Inter-
12 national Baccalaureate courses in
13 mathematics, science, or critical for-
14 eign languages; and

15 (II) pre-Advanced Placement or
16 pre-International Baccalaureate
17 courses in such a subject (where pro-
18 vided in accordance with subpara-
19 graph (B));

20 (B) how the eligible entity will ensure that
21 students have access to courses, including pre-
22 Advanced Placement and pre-International Bac-
23 calaureate courses, that will prepare the stu-
24 dents to enroll and succeed in Advanced Place-
25 ment or International Baccalaureate courses in

1 mathematics, science, or critical foreign lan-
2 guages;

3 (C) how the eligible entity will provide pro-
4 fessional development for teachers assisted
5 under this section;

6 (D) how the eligible entity will ensure that
7 teachers serving high-need schools are qualified
8 to teach Advanced Placement or International
9 Baccalaureate courses in mathematics, science,
10 or critical foreign languages;

11 (E) how the eligible entity will provide for
12 the involvement of business and community or-
13 ganizations and other entities, including institu-
14 tions of higher education, in the activities to be
15 assisted; and

16 (F) how the eligible entity will use funds
17 received under this section, including how the
18 eligible entity will evaluate the success of its
19 project.

20 (g) AUTHORIZED ACTIVITIES.—

21 (1) IN GENERAL.—Each eligible entity that re-
22 ceives a grant under this section shall use the grant
23 funds to carry out activities designed to increase—

24 (A) the number of qualified teachers serv-
25 ing high-need schools who are teaching Ad-

1 vanced Placement or International Bacca-
2 laureate courses in mathematics, science, or
3 critical foreign languages; and

4 (B) the number of students attending
5 high-need schools who enroll in, and pass, the
6 examinations for such Advanced Placement or
7 International Baccalaureate courses.

8 (2) PERMISSIVE ACTIVITIES.—The activities de-
9 scribed in paragraph (1) may include—

10 (A) teacher professional development, in
11 order to expand the pool of teachers in the par-
12 ticipating State, local educational agency, or
13 high-need school who are qualified to teach Ad-
14 vanced Placement or International Bacca-
15 laureate courses in mathematics, science, or
16 critical foreign languages;

17 (B) pre-Advanced Placement or pre-Inter-
18 national Baccalaureate course development and
19 professional development;

20 (C) coordination and articulation between
21 grade levels to prepare students to enroll and
22 succeed in Advanced Placement or International
23 Baccalaureate courses in mathematics, science,
24 or critical foreign languages;

25 (D) purchase of instructional materials;

1 (E) activities to increase the availability of,
2 and participation in, online Advanced Place-
3 ment or International Baccalaureate courses in
4 mathematics, science, and critical foreign lan-
5 guages;

6 (F) reimbursing low-income students at-
7 tending high-need schools for part or all of the
8 cost of Advanced Placement or International
9 Baccalaureate examination fees;

10 (G) carrying out subsection (j), relating to
11 collecting and reporting data;

12 (H) in the case of a State educational
13 agency that receives a grant under this section,
14 awarding subgrants to local educational agen-
15 cies to enable the local educational agencies to
16 carry out authorized activities described in sub-
17 paragraphs (A) through (G); and

18 (I) providing salary increments or bonuses
19 to teachers serving high-need schools who—

20 (i) become qualified to teach, and
21 teach, Advanced Placement or Inter-
22 national Baccalaureate courses in mathe-
23 matics, science, or a critical foreign lan-
24 guage; or

1 (ii) increase the number of low-income
2 students, who take Advanced Placement or
3 International Baccalaureate examinations
4 in mathematics, science, or a critical for-
5 eign language with the goal of successfully
6 passing such examinations.

7 (h) MATCHING REQUIREMENT.—

8 (1) IN GENERAL.—Subject to paragraph (2),
9 each eligible entity that receives a grant under this
10 section shall provide, toward the cost of the activities
11 assisted under the grant, from non-Federal sources,
12 an amount equal to 200 percent of the amount of
13 the grant, except that an eligible entity that is a
14 high-need local educational agency shall provide an
15 amount equal to not more than 100 percent of the
16 amount of the grant.

17 (2) WAIVER.—The Secretary may waive all or
18 part of the matching requirement described in para-
19 graph (1) for any fiscal year for an eligible entity
20 described in subparagraph (A) or (B) of section
21 3122(2), if the Secretary determines that applying
22 the matching requirement to such eligible entity
23 would result in serious hardship or an inability to
24 carry out the authorized activities described in sub-
25 section (g).

1 (i) SUPPLEMENT NOT SUPPLANT.—Grant funds pro-
2 vided under this section shall be used to supplement, not
3 supplant, other Federal and non-Federal funds available
4 to carry out the activities described in subsection (g).

5 (j) COLLECTING AND REPORTING REQUIREMENTS.—

6 (1) REPORT.—Each eligible entity receiving a
7 grant under this section shall collect and report to
8 the Secretary annually such data on the results of
9 the grant as the Secretary may reasonably require,
10 including data regarding—

11 (A) the number of students enrolling in
12 Advanced Placement or International Bacca-
13 laureate courses in mathematics, science, or a
14 critical foreign language, and pre-Advanced
15 Placement or pre-International Baccalaureate
16 courses in such a subject, by the grade the stu-
17 dent is enrolled in, and the distribution of
18 grades those students receive;

19 (B) the number of students taking Ad-
20 vanced Placement or International Bacca-
21 laureate examinations in mathematics, science,
22 or a critical foreign language, and the distribu-
23 tion of scores on those examinations by the
24 grade the student is enrolled in at the time of
25 the examination;

1 (C) the number of teachers receiving train-
2 ing in teaching Advanced Placement or Inter-
3 national Baccalaureate courses in mathematics,
4 science, or a critical foreign language who will
5 be teaching such courses in the next school
6 year;

7 (D) the number of teachers becoming
8 qualified to teach Advanced Placement or Inter-
9 national Baccalaureate courses in mathematics,
10 science, or a critical foreign language; and

11 (E) the number of qualified teachers who
12 are teaching Advanced Placement or Inter-
13 national Baccalaureate courses in mathematics,
14 science, or critical foreign languages to students
15 in a high-need school.

16 (2) REPORTING OF DATA.—Each eligible entity
17 receiving a grant under this section shall report data
18 required under paragraph (1)—

19 (A) disaggregated by subject area;

20 (B) in the case of student data,
21 disaggregated in the same manner as informa-
22 tion is disaggregated under section
23 1111(h)(1)(C)(i) of the Elementary and Sec-
24 ondary Education Act of 1965 (20 U.S.C.
25 6311(h)(1)(C)(i)); and

1 (C) to the extent feasible, in a manner that
2 allows comparison of conditions before, during,
3 and after the project.

4 (k) EVALUATION AND REPORT.—From the amount
5 made available for any fiscal year under subsection (l),
6 the Secretary shall reserve such sums as may be
7 necessary—

8 (1) to conduct an annual independent evalua-
9 tion, by grant or by contract, of the program carried
10 out under this section, which shall include an assess-
11 ment of the impact of the program on student aca-
12 demic achievement; and

13 (2) to prepare and submit an annual report on
14 the results of the evaluation described in paragraph
15 (1) to the Committee on Health, Education, Labor,
16 and Pensions of the Senate, the Committee on Edu-
17 cation and the Workforce of the House of Rep-
18 resentatives, and the Committees on Appropriations
19 of the Senate and House of Representatives.

20 (l) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to carry out this section
22 \$58,000,000 for fiscal year 2008, and such sums as may
23 be necessary for each of the 3 succeeding fiscal years.

1 **Subtitle C—Promising Practices in**
2 **Mathematics, Science, Tech-**
3 **nology, and Engineering Teach-**
4 **ing**

5 **SEC. 3131. PROMISING PRACTICES.**

6 (a) PURPOSE.—The purpose of this section is to
7 strengthen the skills of mathematics, science, technology,
8 and engineering teachers by identifying promising prac-
9 tices in the teaching of mathematics, science, technology,
10 and engineering in elementary and secondary education.

11 (b) NATIONAL PANEL ON PROMISING PRACTICES IN
12 TEACHING MATHEMATICS, SCIENCE, TECHNOLOGY, AND
13 ENGINEERING.—The Secretary is authorized to contract
14 with the National Academy of Sciences to convene, not
15 later than 1 year after the date of enactment of this Act,
16 a national panel to identify existing promising practices
17 in the teaching of mathematics, science, technology, and
18 engineering in kindergarten through grade 12.

19 (c) COMPOSITION OF NATIONAL PANEL.—

20 (1) CONSULTATION.—The Secretary shall enter
21 into a contract with the National Academy of
22 Sciences to establish a panel to identify existing
23 promising practices in the teaching of mathematics,
24 science, technology, and engineering in elementary

1 and secondary education with demonstrated evidence
2 of increasing student academic achievement.

3 (2) SELECTION.—The National Academy of
4 Sciences shall ensure that the panel established
5 under paragraph (1) broadly represents scientists,
6 practitioners, teachers, principals, and representa-
7 tives from entities with expertise in education, math-
8 ematics, and science. The National Academy of
9 Sciences shall ensure that the panel includes the fol-
10 lowing:

11 (A) A majority representation of teachers
12 and principals directly involved in teaching
13 mathematics, science, technology, or engineer-
14 ing in kindergarten through grade 12.

15 (B) Representation of teachers and prin-
16 cipals from all demographic areas, including
17 urban, suburban, and rural schools.

18 (C) Representation of teachers from public
19 and private schools.

20 (3) QUALIFICATIONS OF MEMBERS.—The mem-
21 bers of the panel established under paragraph (1)
22 shall be individuals who have substantial knowledge
23 or experience relating to—

24 (A) mathematics, science, technology, or
25 engineering education programs; or

1 (B) mathematics, science, technology, or
2 engineering curricula content development.

3 (d) AUTHORIZED ACTIVITIES OF NATIONAL
4 PANEL.—The panel shall—

5 (1) identify promising practices in the teaching
6 of mathematics, science, technology, and engineering
7 in elementary and secondary education;

8 (2) identify techniques proven to help teachers
9 increase their skills and expertise in improving stu-
10 dent achievement in mathematics, science, tech-
11 nology, and engineering; and

12 (3) identify areas of need for promising prac-
13 tices in mathematics, science, technology, and engi-
14 neering.

15 (e) DISSEMINATION.—The Secretary shall dissemi-
16 nate information collected pursuant to this section to the
17 public, State educational agencies, and local educational
18 agencies, and shall publish appropriate and relevant infor-
19 mation on the promising practices on the website of the
20 Department in an easy to understand format.

21 (f) MATHEMATICS, SCIENCE, TECHNOLOGY, AND EN-
22 GINEERING “PROMISING PRACTICES”.—

23 (1) RELIABILITY AND MEASUREMENT.—The
24 promising practices in the teaching of mathematics,
25 science, technology, and engineering in elementary

1 and secondary education collected under this section
2 shall be—

3 (A) reliable, valid, and grounded in sci-
4 entific theory and research;

5 (B) reviewed regularly to assess effective-
6 ness; and

7 (C) reviewed in the context of State aca-
8 demic assessments and student academic
9 achievement standards.

10 (2) STUDENTS WITH DIVERSE LEARNING
11 NEEDS.—In identifying promising practices under
12 this section, the panel established under subsection
13 (c) shall take into account the needs of students
14 with diverse learning needs, particularly for students
15 with disabilities and students who are limited
16 English proficient.

17 (g) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to carry out this section
19 such sums as may be necessary for fiscal year 2008.

20 **TITLE II—MATHEMATICS**

21 **SEC. 3201. MATH NOW FOR ELEMENTARY SCHOOL AND MID- 22 **DLE SCHOOL STUDENTS PROGRAM.****

23 (a) PURPOSE.—The purpose of this section is to en-
24 able all students to reach or exceed grade-level academic

1 achievement standards and to prepare the students to en-
2 roll in and pass algebra courses by—

3 (1) improving instruction in mathematics for
4 students in kindergarten through grade 9 through
5 the implementation of mathematics programs and
6 the support of comprehensive mathematics initiatives
7 that are research-based and reflect a demonstrated
8 record of effectiveness; and

9 (2) providing targeted help to low-income stu-
10 dents who are struggling with mathematics and
11 whose achievement is significantly below grade level.

12 (b) DEFINITION OF ELIGIBLE LOCAL EDUCATIONAL
13 AGENCY.—In this section, the term “eligible local edu-
14 cational agency” means a high-need local educational
15 agency (as defined in section 3112(3)) serving 1 or more
16 schools—

17 (1) with significant numbers or percentages of
18 students whose mathematics skills are below grade
19 level;

20 (2) that are not making adequate yearly
21 progress in mathematics under section 1111(b)(2) of
22 the Elementary and Secondary Education Act of
23 1965 (20 U.S.C. 6311(b)(2)); or

24 (3) in which students are receiving instruction
25 in mathematics from teachers who do not have

1 mathematical content knowledge or expertise in the
2 teaching of mathematics.

3 (c) PROGRAM AUTHORIZED.—

4 (1) IN GENERAL.—From the amounts appro-
5 priated under subsection (k) for any fiscal year, the
6 Secretary is authorized to award grants, on a com-
7 petitive basis, for not more than 5 years, to State
8 educational agencies to enable the State educational
9 agencies to award grants to eligible local educational
10 agencies to carry out the activities described in sub-
11 section (e).

12 (2) PRIORITY.—In awarding grants under this
13 section, the Secretary shall give priority to applica-
14 tions for projects that will implement statewide
15 strategies for improving mathematics instruction
16 and raising the mathematics achievement of stu-
17 dents, particularly students in grades 4 through 8.

18 (d) STATE USES OF FUNDS.—

19 (1) IN GENERAL.—Each State educational
20 agency that receives a grant under this section for
21 a fiscal year—

22 (A) shall expend not more than a total of
23 10 percent of the grant funds to carry out the
24 activities described in paragraphs (2) or (3) for
25 the fiscal year; and

1 (B) shall use not less than 90 percent of
2 the grant funds to award grants, on a competi-
3 tive basis, to eligible local educational agencies
4 to enable the eligible local educational agencies
5 to carry out the activities described in sub-
6 section (e) for the fiscal year.

7 (2) MANDATORY USES OF FUNDS.—A State
8 educational agency shall use the grant funds made
9 available under paragraph (1)(A) to carry out each
10 of the following activities:

11 (A) PLANNING AND ADMINISTRATION.—

12 Planning and administration, including—

13 (i) evaluating applications from eligi-
14 ble local educational agencies using peer
15 review teams described in subsection
16 (f)(1)(D);

17 (ii) administering the distribution of
18 grants to eligible local educational agen-
19 cies; and

20 (iii) assessing and evaluating, on a
21 regular basis, eligible local educational
22 agency activities assisted under this sec-
23 tion, with respect to whether the activities
24 have been effective in increasing the num-
25 ber of children—

1 (I) making progress toward meet-
2 ing grade-level mathematics achieve-
3 ment; and

4 (II) meeting or exceeding grade-
5 level mathematics achievement.

6 (B) REPORTING.—Annually providing the
7 Secretary with a report on the implementation
8 of this section as described in subsection (i).

9 (3) PERMISSIVE USE OF FUNDS; TECHNICAL
10 ASSISTANCE.—

11 (A) IN GENERAL.—A State educational
12 agency may use the grant funds made available
13 under paragraph (1)(A) for 1 or more of the
14 following technical assistance activities that as-
15 sist an eligible local educational agency, upon
16 request by the eligible local educational agency,
17 in accomplishing the tasks required to design
18 and implement a project under this section, in-
19 cluding assistance in—

20 (i) implementing mathematics pro-
21 grams or comprehensive mathematics ini-
22 tiatives that are research-based and reflect
23 a demonstrated record of effectiveness;

1 (ii) evaluating and selecting diagnostic
2 and classroom based instructional mathe-
3 matics assessments; and

4 (iii) identifying eligible professional
5 development providers to conduct the pro-
6 fessional development activities described
7 in subsection (e)(1)(B).

8 (B) GUIDANCE.—The technical assistance
9 described in subparagraph (A) shall be guided
10 by researchers with expertise in the pedagogy of
11 mathematics, mathematicians, and mathematics
12 educators from high-risk, high-achievement
13 schools and eligible local educational agencies.

14 (e) LOCAL USES OF FUNDS.—

15 (1) MANDATORY USES OF FUNDS.—Each eligi-
16 ble local educational agency receiving a grant under
17 this section shall use the grant funds to carry out
18 each of the following activities:

19 (A) To implement mathematics programs
20 or comprehensive mathematics initiatives—

21 (i) for students in the grades of a par-
22 ticipating school as identified in the appli-
23 cation submitted under subsection
24 (f)(2)(A); and

1 (ii) that are research-based and reflect
2 a demonstrated record of effectiveness.

3 (B) To provide professional development
4 and instructional leadership activities for teach-
5 ers and, if appropriate, for administrators and
6 other school staff, on the implementation of
7 comprehensive mathematics initiatives
8 designed—

9 (i) to improve the achievement of stu-
10 dents performing significantly below grade
11 level;

12 (ii) to improve the mathematical con-
13 tent knowledge of the teachers, administra-
14 tors, and other school staff;

15 (iii) to increase the use of effective in-
16 structional practices; and

17 (iv) to monitor student progress.

18 (C) To conduct continuous progress moni-
19 toring, which may include the adoption and use
20 of assessments that—

21 (i) measure student progress and
22 identify areas in which students need help
23 in learning mathematics; and

24 (ii) reflect mathematics content that
25 is consistent with State academic achieve-

1 ment standards in mathematics described
2 in section 1111(b) of the Elementary and
3 Secondary Education Act of 1965 (20
4 U.S.C. 6311(b)).

5 (2) PERMISSIVE USES OF FUNDS.—An eligible
6 local educational agency may use grant funds under
7 this section to—

8 (A) adopt and use mathematics instruc-
9 tional materials and assessments;

10 (B) implement classroom-based assess-
11 ments, including diagnostic or formative assess-
12 ments;

13 (C) provide remedial coursework and inter-
14 ventions for students, which may be provided
15 before or after school;

16 (D) provide small groups with individual-
17 ized instruction in mathematics;

18 (E) conduct activities designed to improve
19 the content knowledge and expertise of teach-
20 ers, such as the use of a mathematics coach,
21 enrichment activities, and interdisciplinary
22 methods of mathematics instruction; and

23 (F) collect and report performance data.

24 (f) APPLICATIONS.—

1 (1) STATE EDUCATIONAL AGENCY.—Each State
2 educational agency desiring a grant under this sec-
3 tion shall submit an application to the Secretary at
4 such time and in such manner as the Secretary may
5 require. Each application shall include—

6 (A) an assurance that the core mathe-
7 matics instructional program, supplemental in-
8 structional materials, and intervention pro-
9 grams used by the eligible local educational
10 agencies for the project, are research-based and
11 reflect a demonstrated record of effectiveness
12 and are aligned with State academic achieve-
13 ment standards;

14 (B) an assurance that eligible local edu-
15 cational agencies will meet the requirements de-
16 scribed in paragraph (2);

17 (C) an assurance that local applications
18 will be evaluated using a peer review process;

19 (D) a description of the qualifications of
20 the peer review teams, which shall consist of—

21 (i) researchers with expertise in the
22 pedagogy of mathematics;

23 (ii) mathematicians; and

1 (iii) mathematics educators serving
2 high-risk, high-achievement schools and eli-
3 gible local educational agencies; and

4 (E) an assurance that the State will estab-
5 lish a process to safeguard against conflicts of
6 interest, consistent with subsection (g)(2), for
7 individuals providing technical assistance on be-
8 half of the State educational agency or partici-
9 pating in the State peer review process under
10 this title.

11 (2) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—
12 Each eligible local educational agency desiring a
13 grant under this section shall submit an application
14 to the State educational agency at such time and in
15 such manner as the State educational agency may
16 require. Each application shall include—

17 (A) an assurance that the eligible local
18 educational agency will provide assistance to 1
19 or more schools that are—

20 (i) served by the eligible local edu-
21 cational agency; and

22 (ii) described in section 3201(b);

23 (B) a description of the grades kinder-
24 garten through grade 9, and of the schools, that
25 will be served;

1 (C) information, on an aggregate basis, on
2 each school to be served by the project, includ-
3 ing such demographic, socioeconomic, and
4 mathematics achievement data as the State
5 educational agency may request;

6 (D) a description of the core mathematics
7 instructional program, supplemental instruc-
8 tional materials, and intervention programs or
9 strategies that will be used for the project, in-
10 cluding an assurance that the programs or
11 strategies are research-based and reflect a dem-
12 onstrated record of effectiveness and are
13 aligned with State academic achievement stand-
14 ards;

15 (E) a description of the activities that will
16 be carried out under the grant, including a de-
17 scription of the professional development that
18 will be provided to teachers, and, if appropriate,
19 administrators and other school staff, and a de-
20 scription of how the activities will support
21 achievement of the purpose of this section;

22 (F) an assurance that the eligible local
23 educational agency will report to the State edu-
24 cational agency all data on student academic

1 achievement that is necessary for the State edu-
 2 cational agency's report under subsection (i);

3 (G) a description of the eligible entity's
 4 plans for evaluating the impact of professional
 5 development and leadership activities in mathe-
 6 matics on the content knowledge and expertise
 7 of teachers, administrators, or other school
 8 staff; and

9 (H) any other information the State edu-
 10 cational agency may reasonably require.

11 (g) PROHIBITIONS.—

12 (1) IN GENERAL.—In implementing this sec-
 13 tion, the Secretary shall not—

14 (A) endorse, approve, or sanction any
 15 mathematics curriculum designed for use in any
 16 school; or

17 (B) engage in oversight, technical assist-
 18 ance, or activities that will require the adoption
 19 of a specific mathematics program or instruc-
 20 tional materials by a State, local educational
 21 agency, or school.

22 (2) CONFLICT OF INTEREST.—Any Federal em-
 23 ployee, contractor, or subcontractor involved in the
 24 administration, implementation, or provision of over-

1 sight or technical assistance duties or activities
2 under this section shall—

3 (A) disclose to the Secretary any financial
4 ties to publishers, entities, private individuals,
5 or organizations that will benefit from funds
6 provided under this section; and

7 (B) be prohibited from maintaining signifi-
8 cant financial interests in areas directly related
9 to duties or activities under this section, unless
10 granted a waiver by the Secretary.

11 (3) REPORTING.—The Secretary shall report
12 annually to the Committee on Health, Education,
13 Labor, and Pensions of the Senate and to the Com-
14 mittee on Education and Labor of the House of
15 Representatives on any of the special allowances or
16 waivers granted under paragraph (2)(B).

17 (4) RULE OF CONSTRUCTION.—Nothing in this
18 title shall be construed to authorize or permit the
19 Department of Education, or a Department of Edu-
20 cation contractor, to mandate, direct, control, or
21 suggest the selection of a mathematics curriculum,
22 supplemental instructional materials, or program of
23 instruction by a State, local educational agency, or
24 school.

25 (h) MATCHING REQUIREMENTS.—

1 (1) STATE EDUCATIONAL AGENCY.—A State
2 educational agency that receives a grant under this
3 section shall provide, from non-Federal sources, an
4 amount equal to 50 percent of the amount of the
5 grant, in cash or in kind, to carry out the activities
6 supported by the grant, of which not more than 20
7 percent of such 50 percent may be provided by local
8 educational agencies within the State.

9 (2) WAIVER.—The Secretary may waive all of
10 or a portion of the matching requirement described
11 in paragraph (1) for any fiscal year, if the Secretary
12 determines that—

13 (A) the application of the matching re-
14 quirement will result in serious hardship for the
15 State educational agency; or

16 (B) providing a waiver best serves the pur-
17 pose of the program assisted under this section.

18 (i) PROGRAM PERFORMANCE AND ACCOUNT-
19 ABILITY.—

20 (1) INFORMATION.—Each State educational
21 agency receiving a grant under this section shall col-
22 lect and report to the Secretary annually such infor-
23 mation on the results of the grant as the Secretary
24 may reasonably require, including information on—

1 (A) mathematics achievement data that
2 show the progress of students participating in
3 projects under this section (including, to the ex-
4 tent practicable, comparable data from students
5 not participating in such projects), based pri-
6 marily on the results of State, school district
7 wide, or classroom-based, assessments,
8 including—

9 (i) specific identification of those
10 schools and eligible local educational agen-
11 cies that report the largest gains in mathe-
12 matics achievement; and

13 (ii) evidence on whether the State
14 educational agency and eligible local edu-
15 cational agencies within the State have—

16 (I) significantly increased the
17 number of students achieving at grade
18 level or above in mathematics;

19 (II) significantly increased the
20 percentages of students described in
21 section 1111(b)(2)(C)(v)(II) of the El-
22 elementary and Secondary Education
23 Act of 1965 (20 U.S.C.
24 6311(b)(2)(C)(v)(II)) who are achiev-

1 ing at grade level or above in mathe-
2 matics;

3 (III) significantly increased the
4 number of students making significant
5 progress toward meeting grade-level
6 mathematics achievement standards;
7 and

8 (IV) successfully implemented
9 this section;

10 (B) the percentage of students in the
11 schools served by the eligible local educational
12 agency who enroll in algebra courses and the
13 percentage of such students who pass algebra
14 courses; and

15 (C) the progress made in increasing the
16 quality and accessibility of professional develop-
17 ment and leadership activities in mathematics,
18 especially activities resulting in greater content
19 knowledge and expertise of teachers, adminis-
20 trators, and other school staff, except that the
21 Secretary shall not require such information
22 until after the third year of a grant awarded
23 under this section.

24 (2) REPORTING AND DISAGGREGATION.—The
25 information required under paragraph (1) shall be—

1 (A) reported in a manner that allows for a
 2 comparison of aggregated score differentials of
 3 student academic achievement before (to the ex-
 4 tent feasible) and after implementation of the
 5 project assisted under this section; and

6 (B) disaggregated in the same manner as
 7 information is disaggregated under section
 8 1111(h)(1)(C)(i) of the Elementary and Sec-
 9 ondary Education Act of 1965 (20 U.S.C.
 10 6311(h)(1)(C)(i)).

11 (3) PRIVACY PROTECTION.—The data in the re-
 12 port shall be reported in a manner that—

13 (A) protects the privacy of individuals; and

14 (B) complies with the requirements of the
 15 Family Educational Rights and Privacy Act of
 16 1974 (20 U.S.C. 1232g).

17 (j) EVALUATION AND TECHNICAL ASSISTANCE.—

18 (1) EVALUATION.—

19 (A) IN GENERAL.—The Secretary shall
 20 conduct an annual independent evaluation, by
 21 grant or by contract, of the program assisted
 22 under this section, which shall include an as-
 23 sessment of the impact of the program on stu-
 24 dent academic achievement and teacher per-

1 formance, and may use funds available to carry
2 out this section to conduct the evaluation.

3 (B) REPORT.—The Secretary shall annu-
4 ally submit, to the Committee on Health, Edu-
5 cation, Labor, and Pensions of the Senate, the
6 Committee on Education and the Workforce of
7 the House of Representatives, and the Commit-
8 tees on Appropriations of the Senate and House
9 of Representatives, a report on the results of
10 the evaluation.

11 (2) TECHNICAL ASSISTANCE.—The Secretary
12 may use funds made available under paragraph (3)
13 to provide technical assistance to prospective appli-
14 cants and to eligible local educational agencies re-
15 ceiving a grant under this section.

16 (3) RESERVATION OF FUNDS.—The Secretary
17 may reserve not more than 2.5 percent of funds ap-
18 propriated under subsection (k) for a fiscal year to
19 carry out this subsection.

20 (k) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to carry out this section
22 \$146,700,000 for fiscal year 2008, and such sums as may
23 be necessary for each of the 3 succeeding fiscal years.

1 **SEC. 3202. SUMMER TERM EDUCATION PROGRAMS.**

2 (a) PURPOSE.—The purpose of this section is to cre-
3 ate opportunities for summer learning by providing stu-
4 dents with access to summer learning in mathematics,
5 technology, and problem-solving to ensure that students
6 do not experience learning losses over the summer and to
7 remedy, reinforce, and accelerate the learning of mathe-
8 matics and problem-solving.

9 (b) DEFINITIONS.—In this section:

10 (1) EDUCATIONAL SERVICE AGENCY.—The
11 term “educational service agency” has the meaning
12 given the term in section 9101 of the Elementary
13 and Secondary Education Act of 1965 (20 U.S.C.
14 7801).

15 (2) ELIGIBLE ENTITY.—The term “eligible enti-
16 ty” means an entity that—

17 (A) desires to participate in a summer
18 learning grant program under this section by
19 providing summer learning opportunities de-
20 scribed in subsection (d)(4)(A)(ii) to eligible
21 students; and

22 (B) is—

23 (i) a high-need local educational agen-
24 cy; or

1 (ii) a consortium consisting of a high-
2 need local educational agency and 1 or
3 more of the following entities:

4 (I) Another local educational
5 agency;

6 (II) A community-based youth
7 development organization with a dem-
8 onstrated record of effectiveness in
9 helping students learn;

10 (III) An institution of higher
11 education;

12 (IV) An educational service agen-
13 cy; or

14 (V) A for-profit educational pro-
15 vider, nonprofit organization, science
16 center, museum, or summer enrich-
17 ment camp, that has been approved
18 by the State educational agency to
19 provide the summer learning oppor-
20 tunity described in subsection
21 (d)(4)(A)(ii).

22 (3) ELIGIBLE STUDENT.—The term “eligible
23 student” means a student who—

1 (A) is eligible for a free lunch under the
2 Richard B. Russell National School Lunch Act
3 (42 U.S.C. 1751 et seq.); and

4 (B) is served by a local educational agency
5 identified by the State educational agency in
6 the application described in subsection (c)(2).

7 (4) INSTITUTION OF HIGHER EDUCATION.—The
8 term “institution of higher education” has the
9 meaning given the term in section 101(a) of the
10 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

11 (5) LOCAL EDUCATIONAL AGENCY.—The term
12 “local educational agency” has the meaning given
13 the term in section 9101 of the Elementary and Sec-
14 ondary Education Act of 1965 (20 U.S.C. 7801).

15 (6) HIGH-NEED LOCAL EDUCATIONAL AGEN-
16 CY.—The term high-need local educational agency
17 means a local educational agency (as defined in sec-
18 tion 9101 of the Elementary and Secondary Edu-
19 cation Act of 1965)—

20 (A) that serves not less than 10,000 chil-
21 dren from low-income families;

22 (B) for which not less than 20 percent of
23 the children served by the agency are children
24 from low-income families; or

1 (C) with a total of not less than 600 stu-
2 dents in average daily attendance at the schools
3 that are served by the agency, and all of whose
4 schools are designated with a school locale code
5 of 6, 7, or 8 as determined by the Secretary of
6 Education.

7 (7) SECRETARY.—The term “Secretary” means
8 the Secretary of Education.

9 (8) STATE.—The term “State” means each of
10 the several States of the United States, the District
11 of Columbia, the Commonwealth of Puerto Rico,
12 Guam, American Samoa, the United States Virgin
13 Islands, the Commonwealth of the Northern Mar-
14 iana Islands, the Republic of the Marshall Islands,
15 the Federated States of Micronesia, and the Repub-
16 lic of Palau.

17 (9) STATE EDUCATIONAL AGENCY.—The term
18 “State educational agency” has the meaning given
19 the term in section 9101 of the Elementary and Sec-
20 ondary Education Act of 1965 (20 U.S.C. 7801).

21 (c) DEMONSTRATION GRANT PROGRAM.—

22 (1) PROGRAM AUTHORIZED.—

23 (A) IN GENERAL.—From the funds appro-
24 priated under subsection (f) for a fiscal year,
25 the Secretary shall carry out a demonstration

1 grant program in which the Secretary awards
2 grants, on a competitive basis, to State edu-
3 cational agencies to enable the State edu-
4 cational agencies to pay the Federal share of
5 summer learning grants for eligible students.

6 (B) NUMBER OF GRANTS.—For each fiscal
7 year, the Secretary shall award not more than
8 5 grants under this section.

9 (2) APPLICATION.—A State educational agency
10 that desires to receive a grant under this section
11 shall submit an application to the Secretary at such
12 time, in such manner, and accompanied by such in-
13 formation as the Secretary may require. Such appli-
14 cation shall identify the areas in the State where the
15 summer learning grant program will be offered and
16 the local educational agencies that serve such areas.

17 (3) AWARD BASIS.—

18 (A) SPECIAL CONSIDERATION.—In award-
19 ing grants under this section, the Secretary
20 shall give special consideration to a State edu-
21 cational agency that agrees, to the extent pos-
22 sible, to enter into agreements with eligible en-
23 tities that are consortia described in subsection
24 (b)(2)(B)(iii) and that proposes to target serv-
25 ices to children in grades K–8.

1 (B) GEOGRAPHIC DISTRIBUTION.—In
2 awarding grants under this section, the Sec-
3 retary shall take into consideration an equitable
4 geographic distribution of the grants.

5 (d) SUMMER LEARNING GRANTS.—

6 (1) USE OF GRANTS FOR SUMMER LEARNING
7 GRANTS.—

8 (A) IN GENERAL.—Each State educational
9 agency that receives a grant under subsection
10 (c) for a fiscal year shall use the grant funds
11 to provide summer learning grants for the fiscal
12 year to eligible students in the State who desire
13 to attend a summer learning opportunity of-
14 fered by an eligible entity that enters into an
15 agreement with the State educational agency
16 under paragraph (4)(A).

17 (B) AMOUNT; FEDERAL AND NON-FED-
18 ERAL SHARES.—

19 (i) AMOUNT.—The amount of a sum-
20 mer learning grant provided under this
21 section shall be—

22 (I) for each of the fiscal years
23 2008 through 2011, \$1,600; and

24 (II) for fiscal year 2012, \$1,800.

1 (ii) FEDERAL SHARE.—The Federal
2 share of each summer learning grant shall
3 be not more than 50 percent of the amount
4 of the summer learning grant determined
5 under clause (i).

6 (iii) NON-FEDERAL SHARE.—The non-
7 Federal share of each summer learning
8 grant shall be not less than 50 percent of
9 the amount of the summer learning grant
10 determined under clause (i), and shall be
11 provided from non-Federal sources.

12 (2) DESIGNATION OF SUMMER SCHOLARS.—Eli-
13 gible students who receive summer learning grants
14 under this section shall be known as “summer schol-
15 ars”.

16 (3) SELECTION OF SUMMER LEARNING OPPOR-
17 TUNITY.—

18 (A) DISSEMINATION OF INFORMATION.—A
19 State educational agency that receives a grant
20 under subsection (c) shall disseminate informa-
21 tion about summer learning opportunities and
22 summer learning grants to the families of eligi-
23 ble students in the State.

24 (B) APPLICATION.—The parents of an eli-
25 gible student who are interested in having their

1 child participate in a summer learning oppor-
2 tunity and receive a summer learning grant
3 shall submit an application to the State edu-
4 cational agency that includes a ranked list of
5 preferred summer learning opportunities.

6 (C) PROCESS.—A State educational agency
7 that receives an application under subparagraph
8 (B) shall—

9 (i) process such application;

10 (ii) determine whether the eligible stu-
11 dent shall receive a summer learning
12 grant;

13 (iii) coordinate the assignment of eli-
14 gible students receiving summer learning
15 grants with summer learning opportunities;
16 and

17 (iv) if demand for a summer learning
18 opportunity exceeds capacity, the State
19 educational agency shall prioritize applica-
20 tions to low-achieving eligible students.

21 (D) FLEXIBILITY.—A State educational
22 agency may assign a summer scholar to a sum-
23 mer learning opportunity program that is of-
24 fered in an area served by a local educational

1 agency that is not the local educational agency
2 serving the area where such scholar resides.

3 (E) REQUIREMENT OF ACCEPTANCE.—An
4 eligible entity shall accept, enroll, and provide
5 the summer learning opportunity of such entity
6 to, any summer scholar assigned to such sum-
7 mer learning opportunity by a State educational
8 agency pursuant to this subsection.

9 (4) AGREEMENT WITH ELIGIBLE ENTITY.—

10 (A) IN GENERAL.—A State educational
11 agency shall enter into an agreement with one
12 or more eligible entities offering a summer
13 learning opportunity, under which—

14 (i) the State educational agency shall
15 agree to make payments to the eligible en-
16 tity, in accordance with subparagraph (B),
17 for a summer scholar; and

18 (ii) the eligible entity shall agree to
19 provide the summer scholar with a summer
20 learning opportunity that—

21 (I) provides a total of not less
22 than the equivalent of 30 full days of
23 instruction (or not less than the
24 equivalent of 25 full days of instruc-
25 tion, if the equivalent of an additional

1 5 days is devoted to field trips or
2 other enrichment opportunities) to the
3 summer scholar;

4 (II) employs small-group, re-
5 search-based educational programs,
6 materials, curricula, and practices;

7 (III) provides a curriculum
8 that—

9 (aa) emphasizes mathe-
10 matics, technology, engineering,
11 and problem-solving through ex-
12 periential learning opportunities;

13 (bb) is primarily designed to
14 increase the numeracy and prob-
15 lem-solving skills of the summer
16 scholar; and

17 (cc) is aligned with State
18 academic content standards and
19 goals of the local educational
20 agency serving the summer schol-
21 ar;

22 (IV) measures student progress
23 to determine the gains made by sum-
24 mer scholars in the summer learning
25 opportunity, and disaggregates the re-

1 sults of such progress for summer
2 scholars by race and ethnicity, eco-
3 nomic status, limited English pro-
4 ficiency status, and disability status,
5 in order to determine the oppor-
6 tunity's impact on each subgroup of
7 summer scholars;

8 (V) collects daily attendance data
9 on each summer scholar;

10 (VI) provides professional devel-
11 opment opportunities for teachers to
12 improve their practice in teaching
13 numeracy, and in integrating problem-
14 solving techniques into the cur-
15 riculum; and

16 (VII) meets all applicable Fed-
17 eral, State, and local civil rights laws.

18 (B) AMOUNT OF PAYMENT.—

19 (i) IN GENERAL.—Except as provided
20 in clause (ii), a State educational agency
21 shall make a payment to an eligible entity
22 for a summer scholar in the amount deter-
23 mined under paragraph (1)(B)(i).

24 (ii) ADJUSTMENT.—In the case in
25 which a summer scholar does not attend

1 the full summer learning opportunity, the
2 State educational agency shall reduce the
3 amount provided to the eligible entity pur-
4 suant to clause (i) by a percentage that is
5 equal to the percentage of the summer
6 learning opportunity not attended by such
7 scholar.

8 (5) ADMINISTRATIVE COSTS.—A State edu-
9 cational agency or eligible entity receiving funding
10 under this section may use not more than 5 percent
11 of such funding for administrative costs associated
12 with carrying out this section.

13 (e) EVALUATIONS; REPORT; WEBSITE.—

14 (1) EVALUATION AND ASSESSMENT.—For each
15 year that an eligible entity enters into an agreement
16 under subsection (d)(4), the eligible entity shall pre-
17 pare and submit to the Secretary a report on the ac-
18 tivities and outcomes of each summer learning op-
19 portunity that enrolled a summer scholar,
20 including—

21 (A) information on the design of the sum-
22 mer learning opportunity;

23 (B) the alignment of the summer learning
24 opportunity with State standards; and

1 (C) data from assessments of student
2 mathematics and problem-solving skills for the
3 summer scholars and on the attendance of the
4 scholars, disaggregated by the subgroups de-
5 scribed in subsection (d)(4)(A)(ii)(IV).

6 (2) REPORT.—For each year funds are appro-
7 priated under subsection (f) for this section, the Sec-
8 retary shall prepare and submit a report to the
9 HELP Committee of the Senate and the Education
10 and Labor Committee of the House on the summer
11 learning grant programs, including the effectiveness
12 of the summer learning opportunities in improving
13 student achievement and learning.

14 (3) SUMMER LEARNING GRANTS WEBSITE.—
15 The Secretary shall make accessible, on the Depart-
16 ment of Education website, information for parents
17 and school personnel on successful programs and
18 curricula, and best practices, for summer learning
19 opportunities.

20 (f) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to carry out this section
22 such sums as may be necessary for fiscal year 2008
23 through fiscal year 2012.

1 **SEC. 3203. MATH SKILLS FOR SECONDARY SCHOOL STU-**
2 **DENTS.**

3 (a) The purposes of this section are—

4 (1) to provide assistance to State educational
5 agencies and local educational agencies in imple-
6 menting effective research-based mathematics pro-
7 grams for students in secondary schools, including
8 students with disabilities and students with limited
9 English proficiency;

10 (2) to improve instruction in mathematics for
11 students in secondary school through the implemen-
12 tation of mathematics programs and the support of
13 comprehensive mathematics initiatives that are
14 based on the best available evidence of effectiveness;

15 (3) to provide targeted help to low-income stu-
16 dents who are struggling with mathematics and
17 whose achievement is significantly below grade level;
18 and

19 (4) to provide in-service training for mathe-
20 matics coaches who can assist secondary school
21 teachers to utilize research-based mathematics in-
22 struction to develop and improve students' mathe-
23 matical abilities and knowledge, and assist teachers
24 in assessing and improving student academic
25 achievement.

26 (b) **DEFINITIONS.**—In this section:

1 (1) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—

2 The term “eligible local educational agency” means
3 a local educational agency that is eligible to receive
4 funds, and that is receiving funds, under part A of
5 title I of the Elementary and Secondary Education
6 Act of 1965 (20 U.S.C. 6311 et seq.).

7 (2) MATHEMATICS COACH.—The term “mathe-
8 matics coach” means a certified or licensed teacher,
9 with a demonstrated effectiveness in teaching mathe-
10 matics to students with specialized needs in mathe-
11 matics and improving student academic achievement
12 in mathematics, a command of mathematical content
13 knowledge, and the ability to work with classroom
14 teachers to improve the teachers’ instructional tech-
15 niques to support mathematics improvement, who
16 works on site at a school—

17 (A) to train teachers to better assess stu-
18 dent learning in mathematics;

19 (B) to train teachers to assess students’
20 mathematics skills and identify students who
21 need remediation; and

22 (C) to provide or assess remedial mathe-
23 matics instruction, including for—

24 (i) students in after-school and sum-
25 mer school programs;

- 1 (ii) students requiring additional in-
2 struction;
3 (iii) students with disabilities; and
4 (iv) students with limited English pro-
5 ficiency.

6 (3) SECONDARY SCHOOL.—The term “sec-
7 ondary school” means a school that provides sec-
8 ondary education, as determined under State law.

9 (4) SECRETARY.—The term “Secretary” means
10 the Secretary of Education.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—There
12 are authorized to be appropriated to carry out this section
13 such sums as be necessary for fiscal year 2008 and each
14 of the 3 succeeding fiscal years.

15 (d) GRANTS AUTHORIZED.—

16 (1) IN GENERAL.—From funds appropriated
17 under subsection (c) for a fiscal year, the Secretary
18 shall establish a program, in accordance with the re-
19 quirements of this section, that will provide grants
20 on a competitive basis to State educational agencies
21 to award grants and subgrants to eligible local edu-
22 cational agencies for the purpose of establishing
23 mathematics programs to improve the overall mathe-
24 matics performance of secondary school students in
25 the State.

1 (2) LENGTH OF GRANT.—A grant to a State
2 educational agency under this section shall be
3 awarded for a period of 4 years.

4 (e) RESERVATION OF FUNDS BY THE SECRETARY.—
5 From amounts appropriated under subsection (c) for a fis-
6 cal year, the Secretary may reserve—

7 (1) not more than 3 percent of such amounts
8 to fund national activities in support of the pro-
9 grams assisted under this section, such as research
10 and dissemination of best practices, except that the
11 Secretary may not use the reserved funds to award
12 grants directly to local educational agencies; and

13 (2) not more than $\frac{1}{2}$ of 1 percent of such
14 amounts for the Bureau of Indian Education of the
15 Department of the Interior to carry out the services
16 and activities described in subsection (1)(3) for In-
17 dian children.

18 (f) GRANT FORMULAS.—

19 (1) COMPETITIVE GRANTS TO STATE EDU-
20 CATIONAL AGENCIES.—From amounts appropriated
21 under subsection (c) and not reserved under sub-
22 section (e), the Secretary shall award grants, on a
23 competitive basis, to State educational agencies to
24 enable the State educational agencies to provide sub-
25 grants to eligible local educational agencies to estab-

1 lish mathematics programs for the purpose of im-
2 proving overall mathematics performance among stu-
3 dents in secondary school in the State.

4 (2) MINIMUM GRANT.—The Secretary shall en-
5 sure that the minimum grant made to any state edu-
6 cational agency under this section shall be not less
7 than \$500,000.

8 (g) APPLICATIONS.—

9 (1) IN GENERAL.—In order to receive a grant
10 under this section, a State educational agency shall
11 submit an application to the Secretary at such time,
12 in such manner, and accompanied by such informa-
13 tion as the Secretary may require. Each such appli-
14 cation shall meet the following conditions:

15 (A) A State educational agency shall not
16 include the application for assistance under this
17 section in a consolidated application submitted
18 under section 9302 of the Elementary and Sec-
19 ondary Education Act of 1965 (20 U.S.C.
20 7842).

21 (B) The State educational agency's appli-
22 cation shall include assurances that such appli-
23 cation and any technical assistance provided by
24 the State will be guided by a peer review team,
25 which shall consist of—

- 1 (i) researchers with expertise in the
2 pedagogy of mathematics;
3 (ii) mathematicians; and
4 (iii) mathematics educators serving
5 high-risk, high-achievement schools and eli-
6 gible local educational agencies.

7 (C) The State educational agency will par-
8 ticipate, if requested, in any evaluation of the
9 State educational agency's program under this
10 section.

11 (D) The State educational agency's appli-
12 cation shall include a program plan that con-
13 tains a description of the following:

14 (i) How the State educational agency
15 will assist eligible local educational agen-
16 cies in implementing subgrants, including
17 providing ongoing professional development
18 for mathematics coaches, teachers, para-
19 professionals, and administrators.

20 (ii) How the State educational agency
21 will help eligible local educational agencies
22 identify high-quality screening, diagnostic,
23 and classroom-based instructional mathe-
24 matics assessments.

1 (iii) How the State educational agency
2 will help eligible local educational agencies
3 identify high-quality research-based mathe-
4 matics materials and programs.

5 (iv) How the State educational agency
6 will help eligible local educational agencies
7 identify appropriate and effective mate-
8 rials, programs, and assessments for stu-
9 dents with disabilities and students with
10 limited English proficiency.

11 (v) How the State educational agency
12 will ensure that professional development
13 funded under this section—

14 (I) is based on mathematics re-
15 search;

16 (II) will effectively improve in-
17 structional practices for mathematics
18 for secondary school students;

19 (III) will improve student aca-
20 demic achievement in mathematics;
21 and

22 (IV) is coordinated with profes-
23 sional development activities funded
24 through other programs, including
25 section 2113 of the Elementary and

1 Secondary Education Act of 1965 (20
2 U.S.C. 6613).

3 (vi) How funded activities will help
4 teachers and other instructional staff to
5 implement research-based components of
6 mathematics instruction and improve stu-
7 dent academic achievement.

8 (vii) The subgrant process the State
9 educational agency will use to ensure that
10 eligible local educational agencies receiving
11 subgrants implement programs and prac-
12 tices based on mathematics research.

13 (viii) How the State educational agen-
14 cy will build on and promote coordination
15 among mathematics programs in the State
16 to increase overall effectiveness in improv-
17 ing mathematics instruction and student
18 academic achievement, including for stu-
19 dents with disabilities and students with
20 limited English proficiency.

21 (ix) How the State educational agency
22 will regularly assess and evaluate the effec-
23 tiveness of the eligible local educational
24 agency activities funded under this section.

1 (h) STATE USE OF FUNDS.—Each State educational
2 agency receiving a grant under this section shall—

3 (1) establish a peer review team comprised of
4 researchers with expertise in the pedagogy of mathe-
5 matics, mathematicians, and mathematics educators
6 from high-risk, high-achievement schools, to provide
7 guidance to eligible local educational agencies in se-
8 lecting or developing and implementing appropriate,
9 research-based mathematics programs for secondary
10 school students;

11 (2) use 80 percent of the grant funds received
12 under this section for a fiscal year to fund high-
13 quality applications for subgrants to eligible local
14 educational agencies having applications approved
15 under subsection (l); and

16 (3) use 20 percent of the grant funds received
17 under this section—

18 (A) to carry out State-level activities de-
19 scribed in the application submitted under sub-
20 section (g);

21 (B) to provide—

22 (i) technical assistance to eligible local
23 educational agencies; and

1 (ii) high-quality professional develop-
 2 ment to teachers and mathematics coaches
 3 in the State;

4 (C) to oversee and evaluate subgrant serv-
 5 ices and activities undertaken by the eligible
 6 local educational agencies as described in sub-
 7 section (1)(3); and

8 (D) for administrative costs, of which not
 9 more than 5 percent of the grant funds may be
 10 used for planning, administration, and report-
 11 ing.

12 (i) NOTICE TO ELIGIBLE LOCAL EDUCATIONAL
 13 AGENCIES.—Each State educational agency receiving a
 14 grant under this section shall provide notice to all eligible
 15 local educational agencies in the State about the avail-
 16 ability of subgrants under this section.

17 (j) PROHIBITIONS.—

18 (1) IN GENERAL.—In implementing this sec-
 19 tion, the Secretary shall not—

20 (A) endorse, approve, or sanction any
 21 mathematics curriculum designed for use in any
 22 school; or

23 (B) engage in oversight, technical assist-
 24 ance, or activities that will require the adoption
 25 of a specific mathematics program or instruc-

1 tional materials by a State, local educational
2 agency, or school.

3 (2) CONFLICT OF INTEREST.—Any federal em-
4 ployee, contractor, or subcontractor involved in the
5 administration, implementation, or provision of over-
6 sight or technical assistance duties or activities
7 under this section shall—

8 (A) disclose to the Secretary any financial
9 ties to publishers, entities, private individuals,
10 or organizations that will benefit from funds
11 provided under this section; and

12 (B) be prohibited from maintaining signifi-
13 cant financial interests in areas directly related
14 to duties or activities under this section, unless
15 granted a waiver by the Secretary.

16 (3) REPORTING.—The Secretary shall report
17 annually to the Committee on Health, Education,
18 Labor, and Pensions of the Senate, and the Com-
19 mittee on Education and Labor of the House of
20 Representatives, on each of the waivers granted
21 under paragraph (2)(B).

22 (4) RULE OF CONSTRUCTION.—Nothing in this
23 section shall be construed to authorize or permit the
24 Secretary, Department of Education, or a Depart-
25 ment of Education contractor, to mandate, direct,

1 control, or suggest the selection of a mathematics
2 curriculum, supplemental instructional materials, or
3 program of instruction by a State, local educational
4 agency, or school.

5 (k) SUPPLEMENT NOT SUPPLANT.—Each State edu-
6 cational agency receiving a grant under this section shall
7 use the grant funds to supplement, not supplant, State
8 funding for activities authorized under this section or for
9 other educational activities.

10 (l) SUBGRANTS TO ELIGIBLE LOCAL EDUCATIONAL
11 AGENCIES.—

12 (1) APPLICATION.—

13 (A) IN GENERAL.—Each eligible local edu-
14 cational agency desiring a subgrant under this
15 subsection shall submit an application to the
16 State educational agency in the form and ac-
17 cording to the schedule established by the State
18 educational agency.

19 (B) CONTENTS.—In addition to any infor-
20 mation required by the State educational agen-
21 cy, each application under paragraph (1) shall
22 demonstrate how the eligible local educational
23 agency will carry out the following required ac-
24 tivities:

1 (i) Development or selection and im-
2 plementation of research-based mathe-
3 matics assessments.

4 (ii) Development or selection and im-
5 plementation of research-based mathe-
6 matics programs, including programs for
7 students with disabilities and students with
8 limited English proficiency.

9 (iii) Selection of instructional mate-
10 rials based on mathematics research.

11 (iv) High-quality professional develop-
12 ment for mathematics coaches and teach-
13 ers based on mathematics research.

14 (v) Evaluation and assessment strate-
15 gies.

16 (vi) Reporting.

17 (vii) Providing access to research-
18 based mathematics materials.

19 (C) CONSORTIA.—Consistent with State
20 law, an eligible local educational agency may
21 apply to the State educational agency for a
22 subgrant as a member of a consortium of local
23 educational agencies if each member of the con-
24 sortium is an eligible local educational agency.

25 (2) AWARD BASIS.—

1 (A) PRIORITY.—A State educational agen-
2 cy awarding subgrants under this subsection
3 shall give priority to eligible local educational
4 agencies that—

5 (i) are among the local educational
6 agencies in the State with the lowest grad-
7 uation rates, as described in section
8 1111(b)(2)(C)(vi) of the Elementary and
9 Secondary Education Act of 1965 (20
10 U.S.C. 6311(b)(2)(C)(vi)); and

11 (ii) have the highest number or per-
12 centage of students who are counted under
13 section 1124(c) of the Elementary and
14 Secondary Education Act of 1965 (20
15 U.S.C. 6333(c)).

16 (B) AMOUNT OF GRANTS.—Subgrants
17 under this subsection shall be of sufficient size
18 and scope to enable eligible local educational
19 agencies to fully implement activities assisted
20 under this subsection.

21 (3) LOCAL USE OF FUNDS.—Each eligible local
22 educational agency receiving a subgrant under this
23 subsection shall use the subgrant funds to carry out,
24 at the secondary school level, the following services
25 and activities:

1 (A) Hiring mathematics coaches and pro-
2 viding professional development for mathe-
3 matics coaches—

4 (i) at a level to provide effective
5 coaching to classroom teachers;

6 (ii) to work with classroom teachers to
7 better assess student academic achieve-
8 ment in mathematics;

9 (iii) to work with classroom teachers
10 to identify students with mathematics
11 problems and, where appropriate, refer
12 students to available programs for remedi-
13 ation and additional services;

14 (iv) to work with classroom teachers
15 to diagnose and remediate mathematics
16 difficulties of the lowest-performing stu-
17 dents, so that those teachers can provide
18 intensive, research-based instruction, in-
19 cluding during after-school and summer
20 sessions, geared toward ensuring that
21 those students can access and be successful
22 in rigorous academic coursework; and

23 (v) to assess and organize student
24 data on mathematics and communicate

1 that data to school administrators to in-
2 form school reform efforts.

3 (B) Reviewing, analyzing, developing, and,
4 where possible, adapting curricula to make sure
5 mathematics skills are taught within other core
6 academic subjects.

7 (C) Providing mathematics professional de-
8 velopment for all relevant teachers in secondary
9 school, as necessary, that addresses both reme-
10 dial and higher level mathematics skills for stu-
11 dents in the applicable curriculum.

12 (D) Providing professional development for
13 teachers, administrators, and paraprofessionals
14 serving secondary schools to help the teachers,
15 administrators, and paraprofessionals improve
16 student academic achievement in mathematics.

17 (E) Procuring and implementing programs
18 and instructional materials based on mathe-
19 matics research, including software and other
20 education technology related to mathematics in-
21 struction with demonstrated effectiveness in im-
22 proving mathematics instruction and student
23 academic achievement.

24 (F) Building on and promoting coordina-
25 tion among mathematics programs in the eligi-

1 ble local educational agency to increase overall
2 effectiveness in—

3 (i) improving mathematics instruction;

4 and

5 (ii) increasing student academic
6 achievement, including for students with
7 disabilities and students with limited
8 English proficiency.

9 (G) Evaluating the effectiveness of the in-
10 structional strategies, teacher professional de-
11 velopment programs, and other interventions
12 that are implemented under the subgrant; and

13 (H) Measuring improvement in student
14 academic achievement, including through
15 progress monitoring or other assessments.

16 (4) SUPPLEMENT NOT SUPPLANT.—Each eligi-
17 ble local educational agency receiving a subgrant
18 under this subsection shall use the subgrant funds
19 to supplement, not supplant, the eligible local edu-
20 cational agency’s funding for activities authorized
21 under this section or for other educational activities.

22 (5) NEW SERVICES AND ACTIVITIES.—Subgrant
23 funds provided under this subsection may be used
24 only to provide services and activities authorized

1 under this section that were not provided on the day
2 before the date of enactment of this Act.

3 (6) EVALUATIONS.—Each eligible local edu-
4 cational agency receiving a grant under this sub-
5 section shall participate, as requested by the State
6 educational agency or the Secretary, in reviews and
7 evaluations of the programs of the eligible local edu-
8 cational agency and the effectiveness of such pro-
9 grams, and shall provide such reports as are re-
10 quested by the State educational agency and the
11 Secretary.

12 (m) MATCHING REQUIREMENTS.—

13 (1) STATE EDUCATIONAL AGENCY REQUIRE-
14 MENTS.—A State educational agency that receives a
15 grant under this section shall provide, from non-
16 Federal sources, an amount equal to 50 percent of
17 the amount of the grant, in cash or in-kind, to carry
18 out the activities supported by the grant, of which
19 not more than 20 percent of such 50 percent may
20 be provided by local educational agencies within the
21 State.

22 (2) WAIVER.—The Secretary may waive all or
23 a portion of the matching requirements described in
24 paragraph (1) for any fiscal year, if the Secretary
25 determines that—

1 (A) the application of the matching re-
2 quirement will result in serious hardship for the
3 State educational agency; or

4 (B) providing a waiver best serves the pur-
5 pose of the program assisted under this section.

6 (n) PROGRAM PERFORMANCE AND ACCOUNT-
7 ABILITY.—

8 (1) INFORMATION.—Each State educational
9 agency receiving a grant under this section shall col-
10 lect and report to the Secretary annually such infor-
11 mation on the results of the grant as the Secretary
12 may reasonably require, including information on—

13 (A) mathematics achievement data that
14 show the progress of students participating in
15 projects under this section (including, to the ex-
16 tent practicable, comparable data from students
17 not participating in such projects), based pri-
18 marily on the results of State, school district-
19 wide, or classroom-based monitoring reports or
20 assessments, including—

21 (i) specific identification of those
22 schools and eligible local educational agen-
23 cies that report the largest gains in mathe-
24 matics achievement; and

1 (ii) evidence on whether the State
2 educational agency and eligible local edu-
3 cational agencies within the State have—

4 (I) significantly increased the
5 number of students achieving at the
6 proficient or advanced level on the
7 State student academic achievement
8 standards in mathematics under sec-
9 tion 1111(b)(1)(D)(ii) of the Elemen-
10 tary and Secondary Education Act of
11 1965 (20 U.S.C. 6311(b)(1)(D)(ii));

12 (II) significantly increased the
13 percentages of students described in
14 section 1111(b)(2)(C)(v)(II) of the El-
15 ementary and Secondary Education
16 Act of 1965 (20 U.S.C.
17 6311(b)(2)(C)(v)(II)) who are achiev-
18 ing proficiency or advanced levels on
19 such State academic content stand-
20 ards in mathematics;

21 (III) significantly increased the
22 number of students making significant
23 progress toward meeting such State
24 academic content and achievement
25 standards in mathematics; and

1 (IV) successfully implemented
2 this section;

3 (B) the percentage of students in the
4 schools served by the eligible local educational
5 agency who enroll in advanced mathematics
6 courses in grades 9 through 12, including the
7 percentage of such students who pass such
8 courses; and

9 (C) the progress made in increasing the
10 quality and accessibility of professional develop-
11 ment and leadership activities in mathematics,
12 especially activities resulting in greater content
13 knowledge and expertise of teachers, adminis-
14 trators, and other school staff, except that the
15 Secretary shall not require such information
16 until after the third year of a grant awarded
17 under this section.

18 (2) REPORTING AND DISAGGREGATION.—The
19 information required under paragraph (1) shall be—

20 (A) reported in a manner that allows for a
21 comparison of aggregated score differentials of
22 student academic achievement before (to the ex-
23 tent feasible) and after implementation of the
24 project assisted under this section; and

1 (B) disaggregated in the same manner as
2 information is disaggregated under section
3 1111(h)(1)(C)(i) of the Elementary and Sec-
4 ondary Education Act of 1965 (20 U.S.C.
5 6311(h)(1)(C)(i)).

6 **TITLE III—FOREIGN LANGUAGE**
7 **PARTNERSHIP PROGRAM**

8 **SEC. 3301. FINDINGS AND PURPOSE.**

9 (a) FINDINGS.—Congress makes the following find-
10 ings:

11 (1) The United States faces a shortage of
12 skilled professionals with higher levels of proficiency
13 in foreign languages and area knowledge critical to
14 the Nation's security.

15 (2) Given the Nation's economic competitive-
16 ness interests, it is crucial that our Nation expand
17 the number of Americans who are able to function
18 effectively in the environments in which critical for-
19 eign languages are spoken.

20 (3) Students' ability to become proficient in for-
21 eign languages can be addressed by starting lan-
22 guage learning at a younger age and expanding op-
23 portunities for continuous foreign language edu-
24 cation from elementary school through postsec-
25 ondary education.

1 (b) PURPOSE.—The purpose of this title is to signifi-
2 cantly increase—

3 (1) the opportunities to study critical foreign
4 languages and the context in which the critical for-
5 eign languages are spoken; and

6 (2) the number of American students who
7 achieve the highest level of proficiency in critical for-
8 eign languages.

9 **SEC. 3302. DEFINITIONS.**

10 In this title:

11 (1) ELIGIBLE RECIPIENT.—The term “eligible
12 recipient” means an institution of higher education
13 that receives grant funds under this title on behalf
14 of a partnership for use in carrying out the activities
15 assisted under this title.

16 (2) PARTNERSHIP.—The term “partnership”
17 means a partnership that—

18 (A) shall include—

19 (i) an institution of higher education;

20 and

21 (ii) 1 or more local educational agen-
22 cies; and

23 (B) may include 1 or more entities that
24 support the purposes of this title.

1 (3) SUPERIOR LEVEL OF PROFICIENCY.—The
2 term “superior level of proficiency” means level 3,
3 the professional working level, as measured by the
4 Federal Interagency Language Roundtable (ILR) or
5 by other generally recognized measures of superior
6 standards.

7 **SEC. 3303. PROGRAM AUTHORIZED.**

8 (a) PROGRAM AUTHORIZED.—

9 (1) IN GENERAL.—The Secretary is authorized
10 to award grants to eligible recipients to enable part-
11 nerships served by the eligible recipients to establish
12 articulated programs of study in critical foreign lan-
13 guages that will enable students to advance success-
14 fully from elementary school through postsecondary
15 education and achieve higher levels of proficiency in
16 a critical foreign language.

17 (2) DURATION.—A grant awarded under para-
18 graph (1) shall be for a period of not more than 5
19 years. A grant may be renewed for not more than
20 2 additional 5-year periods, if the Secretary deter-
21 mines that the partnership’s program is effective
22 and the renewal will best serve the purposes of this
23 title.

24 (b) APPLICATIONS.—

1 (1) IN GENERAL.—Each eligible recipient desir-
2 ing a grant under this section shall submit an appli-
3 cation to the Secretary at such time, in such man-
4 ner, and containing such information as the Sec-
5 retary may require.

6 (2) CONTENTS.—Each application shall—

7 (A) identify each local educational agency
8 partner, including contact information and let-
9 ters of commitment, and describe the respon-
10 sibilities of each member of the partnership,
11 including—

12 (i) how each of the partners will be in-
13 volved in planning, developing, and
14 implementing—

15 (I) program curriculum and ma-
16 terials; and

17 (II) teacher professional develop-
18 ment;

19 (ii) what resources each of the part-
20 ners will provide; and

21 (iii) how the partners will contribute
22 to ensuring the continuity of student
23 progress from elementary school through
24 the postsecondary level;

1 (B) describe how an articulated curriculum
2 for students will be developed and implemented,
3 which may include the use and integration of
4 technology into such curriculum;

5 (C) identify target proficiency levels for
6 students at critical benchmarks (such as grades
7 4, 8, and 12), and describe how progress to-
8 ward those proficiency levels will be assessed at
9 the benchmarks, and how the program will use
10 the results of the assessments to ensure contin-
11 uous progress toward achieving a superior level
12 of proficiency at the postsecondary level;

13 (D) describe how the partnership will—

14 (i) ensure that students from a pro-
15 gram assisted under this title who are be-
16 ginning postsecondary education will be as-
17 sessed and enabled to progress to a supe-
18 rior level of proficiency;

19 (ii) address the needs of students al-
20 ready at, or near, the superior level of pro-
21 ficiency, which may include diagnostic as-
22 sements for placement purposes, cus-
23 tomized and individualized language learn-
24 ing opportunities, and experimental and
25 interdisciplinary language learning; and

1 (iii) identify and describe how the
2 partnership will work with institutions of
3 higher education outside the partnership to
4 provide participating students with mul-
5 tiple options for postsecondary education
6 consistent with the purposes of this title;

7 (E) describe how the partnership will sup-
8 port and continue the program after the grant
9 has expired, including how the partnership will
10 seek support from other sources, such as State
11 and local governments, foundations, and the
12 private sector; and

13 (F) describe what assessments will be used
14 or, if assessments not available, how assess-
15 ments will be developed.

16 (c) USES OF FUNDS.—Grant funds awarded under
17 this title—

18 (1) shall be used to develop and implement pro-
19 grams at the elementary school level through post-
20 secondary education, consistent with the purpose of
21 this title, including—

22 (A) the development of curriculum and in-
23 structional materials; and

24 (B) recruitment of students; and

25 (2) may be used for—

1 (A) teacher recruitment (including recruit-
2 ment from other professions and recruitment of
3 native-language speakers in the community)
4 and professional development directly related to
5 the purposes of this title at the elementary
6 school through secondary school levels;

7 (B) development of appropriate assess-
8 ments;

9 (C) opportunities for maximum language
10 exposure for students in the program, such as
11 the creation of immersion environments (such
12 as language houses, language tables, immersion
13 classrooms, and weekend and summer experi-
14 ences) and special tutoring and academic sup-
15 port;

16 (D) dual language immersion programs;

17 (E) scholarships and study-abroad oppor-
18 tunities, related to the program, for postsec-
19 ondary students and newly recruited teachers
20 who have advanced levels of proficiency in a
21 critical foreign language, except that not more
22 than 20 percent of the grant funds provided to
23 an eligible recipient under this section for a fis-
24 cal year may be used to carry out this subpara-
25 graph;

1 (F) activities to encourage community in-
2 volvement to assist in meeting the purposes of
3 this title;

4 (G) summer institutes for students and
5 teachers;

6 (H) bridge programs that allow dual en-
7 rollment for secondary school students in insti-
8 tutions of higher education;

9 (I) programs that expand the under-
10 standing and knowledge of historic, geographic,
11 and contextual factors within countries with
12 populations who speak critical foreign lan-
13 guages, if such programs are carried out in con-
14 junction with language instruction;

15 (J) research on, and evaluation of, the
16 teaching of critical foreign languages;

17 (K) data collection and analysis regarding
18 the results of—

19 (i) various student recruitment strate-
20 gies;

21 (ii) program design; and

22 (iii) curricular approaches;

23 (L) the impact of the strategies, program
24 design, and curricular approaches described in
25 subparagraph (K) on increasing—

- 1 (i) the number of students studying
2 critical foreign languages; and
3 (ii) the proficiency of the students in
4 the critical foreign languages; and
5 (M) distance learning projects for critical
6 foreign language learning.

7 (d) MATCHING REQUIREMENT.—

8 (1) IN GENERAL.—An eligible recipient that re-
9 ceives a grant under this title shall provide, toward
10 the cost of carrying out the activities supported by
11 the grant, from non-Federal sources, an amount
12 equal to—

13 (A) 20 percent of the amount of the grant
14 payment for the first fiscal year for which a
15 grant payment is made;

16 (B) 30 percent of the amount of the grant
17 payment for the second such fiscal year;

18 (C) 40 percent of the amount of the grant
19 payment for the third such fiscal year; and

20 (D) 50 percent of the amount of the grant
21 payment for each of the fourth and fifth such
22 fiscal years.

23 (2) NON-FEDERAL SHARE.—The non-Federal
24 share required under paragraph (1) may be provided
25 in cash or in-kind.

1 (3) WAIVER.—The Secretary may waive all or
2 part of the matching requirement of paragraph (1),
3 for any fiscal year, if the Secretary determines
4 that—

5 (A) the application of the matching re-
6 quirement will result in serious hardship for the
7 partnership; or

8 (B) the waiver will best serve the purposes
9 of this title.

10 (e) SUPPLEMENT NOT SUPPLANT.—Grant funds
11 provided under this title shall be used to supplement, not
12 supplant, other Federal and non-Federal funds available
13 to carry out the activities described in subsection (c).

14 (f) TECHNICAL ASSISTANCE.—The Secretary shall
15 enter into a contract to establish a technical assistance
16 center to provide technical assistance to partnerships de-
17 veloping critical foreign language programs assisted under
18 this section. The center shall—

19 (1) assist the partnerships in the development
20 of critical foreign language instructional materials
21 and assessments; and

22 (2) disseminate promising foreign language in-
23 structional practices.

24 (g) PROGRAM EVALUATION.—

1 (1) IN GENERAL.—The Secretary may reserve
2 not more than 5 percent of the total amount appro-
3 priated for this title for any fiscal year to annually
4 evaluate the programs under this title.

5 (2) REPORT.—The Secretary shall prepare and
6 annually submit, to the Committee on Health, Edu-
7 cation, Labor, and Pensions of the Senate, the Com-
8 mittee on Education and the Workforce of the
9 House of Representatives, and the Committees on
10 Appropriations of the Senate and House of Rep-
11 resentatives, a report on the results of any program
12 evaluation conducted under this subsection.

13 **SEC. 3304. AUTHORIZATION OF APPROPRIATIONS.**

14 For the purpose of carrying out this title, there are
15 authorized to be appropriated \$22,000,000 for fiscal year
16 2008, and such sums as may be necessary for each of the
17 3 succeeding fiscal years.

18 **TITLE IV—ALIGNMENT OF**
19 **EDUCATION PROGRAMS**

20 **SEC. 3401. ALIGNMENT OF SECONDARY SCHOOL GRADUA-**
21 **TION REQUIREMENTS WITH THE DEMANDS**
22 **OF 21ST CENTURY POSTSECONDARY ENDEAV-**
23 **ORS AND SUPPORT FOR P-16 EDUCATION**
24 **DATA SYSTEMS.**

25 (a) PURPOSE.—It is the purpose of this section—

1 (1) to promote more accountability with respect
2 to preparation for higher education, the 21st century
3 workforce, and the Armed Forces, by aligning—

4 (A) student knowledge, student skills,
5 State academic content standards and assess-
6 ments, and curricula, in elementary and sec-
7 ondary education, especially with respect to
8 mathematics, science, reading, and, where ap-
9 plicable, engineering and technology; with

10 (B) the demands of higher education, the
11 21st century workforce, and the Armed Forces;

12 (2) to support the establishment or improve-
13 ment of statewide P–16 education data systems
14 that—

15 (A) assist States in improving the rigor
16 and quality of State academic content stand-
17 ards and assessments;

18 (B) ensure students are prepared to suc-
19 ceed in—

20 (i) academic credit-bearing coursework
21 in higher education without the need for
22 remediation;

23 (ii) the 21st century workforce; or

24 (iii) the Armed Forces; and

1 (3) enable States to have valid and reliable in-
2 formation to inform education policy and practice.

3 (b) DEFINITIONS.—In this section:

4 (1) INSTITUTION OF HIGHER EDUCATION.—The
5 term “institution of higher education” has the
6 meaning given the term in section 101(a) of the
7 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

8 (2) P-16 EDUCATION.—The term “P-16 edu-
9 cation” means the educational system from pre-
10 school through the conferring of a baccalaureate de-
11 gree.

12 (3) STATEWIDE PARTNERSHIP.—The term
13 “statewide partnership” means a partnership that—

14 (A) shall include—

15 (i) the Governor of the State or the
16 designee of the Governor;

17 (ii) the heads of the State systems for
18 public higher education, or, if such a posi-
19 tion does not exist, not less than 1 rep-
20 resentative of a public degree-granting in-
21 stitution of higher education;

22 (iii) a representative of the agencies in
23 the State that administer Federal or State-
24 funded early childhood education pro-
25 grams;

1 (iv) not less than 1 representative of
2 a public community college;

3 (v) not less than 1 representative of a
4 technical school;

5 (vi) not less than 1 representative of
6 a public secondary school;

7 (vii) the chief State school officer;

8 (viii) the chief executive officer of the
9 State higher education coordinating board;

10 (ix) not less than 1 public elementary
11 school teacher employed in the State;

12 (x) not less than 1 early childhood ed-
13 ucator in the State;

14 (xi) not less than 1 public secondary
15 school teacher employed in the State;

16 (xii) not less than 1 representative of
17 the business community in the State; and

18 (xiii) not less than 1 member of the
19 Armed Forces; and

20 (B) may include other individuals or rep-
21 resentatives of other organizations, such as a
22 school administrator, a faculty member at an
23 institution of higher education, a member of a
24 civic or community organization, a representa-
25 tive from a private institution of higher edu-

1 cation, a dean or similar representative of a
 2 school of education at an institution of higher
 3 education or a similar teacher certification or li-
 4 censure program, or the State official respon-
 5 sible for economic development.

6 (c) GRANTS AUTHORIZED.—The Secretary is author-
 7 ized to award grants, on a competitive basis, to States to
 8 enable each such State to work with a statewide
 9 partnership—

10 (1) to promote better alignment of content
 11 knowledge requirements for secondary school grad-
 12 uation with the knowledge and skills needed to suc-
 13 ceed in postsecondary education, the 21st century
 14 workforce, or the Armed Forces; or

15 (2) to establish or improve a statewide P–16
 16 education data system.

17 (d) PERIOD OF GRANTS; NON-RENEWABILITY.—

18 (1) GRANT PERIOD.—The Secretary shall
 19 award a grant under this section for a period of not
 20 more than 3 years.

21 (2) NON-RENEWABILITY.—The Secretary shall
 22 not award a State more than 1 grant under this sec-
 23 tion.

24 (e) AUTHORIZED ACTIVITIES.—

1 (1) GRANTS FOR P-16 ALIGNMENT.—Each
2 State receiving a grant under subsection (c)(1)—

3 (A) shall use the grant funds for—

4 (i) identifying and describing the con-
5 tent knowledge and skills students who
6 enter institutions of higher education, the
7 workforce, and the Armed Forces need to
8 have in order to succeed without any reme-
9 diation based on detailed requirements ob-
10 tained from institutions of higher edu-
11 cation, employers, and the Armed Forces;

12 (ii) identifying and making changes
13 that need to be made to a State's sec-
14 ondary school graduation requirements,
15 academic content standards, academic
16 achievement standards, and assessments
17 preceding graduation from secondary
18 school in order to align the requirements,
19 standards, and assessments with the
20 knowledge and skills necessary for success
21 in academic credit-bearing coursework in
22 postsecondary education, in the 21st cen-
23 tury workforce, and in the Armed Forces
24 without the need for remediation;

1 (iii) convening stakeholders within the
2 State and creating a forum for identifying
3 and deliberating on education issues that—

4 (I) involve preschool through
5 grade 12 education, postsecondary
6 education, the 21st century workforce,
7 and the Armed Forces; and

8 (II) transcend any single system
9 of education's ability to address; and

10 (iv) implementing activities designed
11 to ensure the enrollment of all elementary
12 school and secondary school students in
13 rigorous coursework, which may include—

14 (I) specifying the courses and
15 performance levels necessary for ac-
16 ceptance into institutions of higher
17 education; and

18 (II) developing or providing guid-
19 ance to local educational agencies
20 within the State on the adoption of
21 curricula and assessments aligned
22 with State academic content stand-
23 ards, which assessments may be used
24 as measures of student academic
25 achievement in secondary school as

1 well as for entrance or placement at
2 institutions of higher education, in-
3 cluding through collaboration with in-
4 stitutions of higher education in, or
5 State educational agencies serving,
6 other States; and

7 (B) may use the grant funds for—

8 (i) developing and making available
9 specific opportunities for extensive profes-
10 sional development for teachers, para-
11 professionals, principals, and school admin-
12 istrators, including collection and dissemi-
13 nation of effective teaching practices to im-
14 prove instruction and instructional support
15 mechanisms;

16 (ii) identifying changes in State aca-
17 demic content standards, academic achieve-
18 ment standards, and assessments for stu-
19 dents in grades preceding secondary school
20 in order to ensure such standards and as-
21 sessments are appropriately aligned and
22 adequately reflect the content needed to
23 prepare students to enter secondary school;

24 (iii) developing a plan to provide re-
25 mediation and additional learning opportu-

1 nities for students who are performing
 2 below grade level to ensure that all stu-
 3 dents will have the opportunity to meet
 4 secondary school graduation requirements;

5 (iv) identifying and addressing teacher
 6 certification needs; or

7 (v) incorporating 21st century learn-
 8 ing skills into the State plan, which skills
 9 shall include critical thinking, problem
 10 solving, communication, collaboration,
 11 global awareness, and business and finan-
 12 cial literacy.

13 (2) GRANTS FOR STATEWIDE P-16 EDUCATION
 14 DATA SYSTEMS.—

15 (A) ESTABLISHMENT OF SYSTEM.—Each
 16 State that receives a grant under subsection
 17 (c)(2) shall establish a statewide P-16 edu-
 18 cation longitudinal data system that—

19 (i) provides each student, upon enroll-
 20 ment in a public elementary school or sec-
 21 ondary school in the State, with a unique
 22 identifier, such as a bar code, that—

23 (I) does not permit a student to
 24 be individually identified by users of
 25 the system; and

1 (II) is retained throughout the
2 student's enrollment in P-16 edu-
3 cation in the State; and

4 (ii) meets the requirements of sub-
5 paragraphs (B) through (E).

6 (B) IMPROVEMENT OF EXISTING SYS-
7 TEM.—Each State that receives a grant under
8 subsection (c)(2) for the improvement of a
9 statewide P-16 education data system may em-
10 ploy, coordinate, or revise an existing statewide
11 data system to establish a statewide longitu-
12 dinal P-16 education data system that meets
13 the requirements of subparagraph (A), if the
14 statewide longitudinal P-16 education data sys-
15 tem produces valid and reliable data.

16 (C) PRIVACY AND ACCESS TO DATA.—

17 (i) IN GENERAL.—Each State that re-
18 ceives a grant under subsection (c)(2) shall
19 implement measures to—

20 (I) limit the State's use of infor-
21 mation in the statewide P-16 edu-
22 cation data system to the purposes
23 and functions for use of such informa-
24 tion set forth in Federal or State law
25 regarding education and allow access

1 to the information in the statewide
2 data system only to those State em-
3 ployees, and only on such terms, as
4 may be necessary to fulfill those pur-
5 poses and functions;

6 (II) prohibit the disclosure of in-
7 formation in the statewide P-16 edu-
8 cation data system to any other per-
9 son, agency, institution, or entity, ex-
10 cept to the extent necessary to assist
11 the State in fulfilling the purposes
12 and functions for use of such informa-
13 tion set forth in Federal or State law
14 regarding education, and only if such
15 party has signed a data use agree-
16 ment that—

17 (aa) prohibits the party
18 from further disclosing the infor-
19 mation;

20 (bb) prohibits the party
21 from using the information for
22 any purpose other than the pur-
23 pose specified in the agreement,
24 which purpose must relate to as-
25 sisting the State in carrying out

1 the purposes and functions for
2 use of such information set forth
3 in Federal or State law regarding
4 education; and

5 (cc) requires the party to de-
6 stroy the information when the
7 purpose for which the disclosure
8 was made is accomplished;

9 (III) keep an accurate accounting
10 of the date, nature, and purpose of
11 each disclosure of information in the
12 statewide P-16 education data sys-
13 tem, and the name and address of the
14 person, agency, institution, or entity
15 to whom the disclosure is made, which
16 accounting shall be made available on
17 request to parents of any student
18 whose information has been disclosed;

19 (IV) maintain adequate security
20 measures to ensure the confidentiality
21 and integrity of the data system;

22 (V) ensure that the statewide P-
23 16 education data system meets any
24 further requirements of the Family

1 Educational Rights and Privacy Act
2 of 1974 (20 U.S.C. 1232g);

3 (VI) where rights are provided to
4 parents under this clause, provide
5 those rights to the student instead of
6 the parent if the student has reached
7 the age of 18 or is enrolled in a post-
8 secondary educational institution; and

9 (VII) ensure adequate enforce-
10 ment of the requirements of this
11 clause.

12 (ii) USE OF UNIQUE IDENTIFIERS.—

13 (I) GOVERNMENTAL USE OF
14 UNIQUE IDENTIFIERS.—It shall be
15 unlawful for any Federal, State, or
16 local governmental agency to use the
17 unique identifiers employed in the
18 statewide P–16 education data sys-
19 tems for any purpose other than as
20 authorized by Federal or State law re-
21 garding education, or to deny any in-
22 dividual any right, benefit, or privilege
23 provided by law because of such indi-
24 vidual’s refusal to disclose the individ-
25 ual’s unique identifier.

1 (II) REGULATIONS.—Not later
2 than 180 days after the date of enact-
3 ment of this Act, the Secretary of
4 Education shall promulgate regula-
5 tions governing the use by govern-
6 mental and non-governmental entities
7 of the unique identifiers employed in
8 statewide P–16 education data sys-
9 tems, including, where necessary, reg-
10 ulations requiring States desiring
11 grants for statewide P–16 education
12 data systems under this section to im-
13 plement specified measures, with the
14 goal of safeguarding individual pri-
15 vacy to the maximum extent prac-
16 ticable consistent with the uses of the
17 information authorized in this Act or
18 other Federal or State law regarding
19 education.

20 (D) REQUIRED ELEMENTS OF A STATE-
21 WIDE P–16 EDUCATION DATA SYSTEM.—The
22 State shall ensure that the statewide P–16 edu-
23 cation data system includes the following ele-
24 ments:

1 (i) PRESCHOOL THROUGH GRADE 12
2 EDUCATION AND POSTSECONDARY EDU-
3 CATION.—With respect to preschool
4 through grade 12 education and postsec-
5 ondary education—

6 (I) a unique statewide student
7 identifier that does not permit a stu-
8 dent to be individually identified by
9 users of the system;

10 (II) student-level enrollment, de-
11 mographic, and program participation
12 information;

13 (III) student-level information
14 about the points at which students
15 exit, transfer in, transfer out, drop
16 out, or complete P–16 education pro-
17 grams;

18 (IV) the capacity to communicate
19 with higher education data systems;
20 and

21 (V) a State data audit system as-
22 sessing data quality, validity, and reli-
23 ability.

1 (ii) PRESCHOOL THROUGH GRADE 12
2 EDUCATION.—With respect to preschool
3 through grade 12 education—

4 (I) yearly test records of indi-
5 vidual students with respect to assess-
6 ments under section 1111(b) of the
7 Elementary and Secondary Education
8 Act of 1965 (20 U.S.C. 6311(b));

9 (II) information on students not
10 tested by grade and subject;

11 (III) a teacher identifier system
12 with the ability to match teachers to
13 students;

14 (IV) student-level transcript in-
15 formation, including information on
16 courses completed and grades earned;
17 and

18 (V) student-level college readi-
19 ness test scores.

20 (iii) POSTSECONDARY EDUCATION.—
21 With respect to postsecondary education,
22 data that provide—

23 (I) information regarding the ex-
24 tent to which students transition suc-
25 cessfully from secondary school to

1 postsecondary education, including
2 whether students enroll in remedial
3 coursework; and

4 (II) other information determined
5 necessary to address alignment and
6 adequate preparation for success in
7 postsecondary education.

8 (E) FUNCTIONS OF THE STATEWIDE P-16
9 EDUCATION DATA SYSTEM.—In implementing
10 the statewide P-16 education data system, the
11 State shall—

12 (i) identify factors that correlate to
13 students' ability to successfully engage in
14 and complete postsecondary-level general
15 education coursework without the need for
16 prior developmental coursework;

17 (ii) identify factors to increase the
18 percentage of low-income and minority stu-
19 dents who are academically prepared to
20 enter and successfully complete postsec-
21 ondary-level general education coursework;
22 and

23 (iii) use the data in the system to oth-
24 erwise inform education policy and practice
25 in order to better align State academic

1 content standards, and curricula, with the
2 demands of postsecondary education, the
3 21st century workforce, and the Armed
4 Forces.

5 (f) APPLICATION.—

6 (1) IN GENERAL.—Each State desiring a grant
7 under this section shall submit an application to the
8 Secretary at such time, in such manner, and con-
9 taining such information as the Secretary may rea-
10 sonably require.

11 (2) APPLICATION CONTENTS.—Each application
12 submitted under this section shall specify whether
13 the State application is for the conduct P–16 edu-
14 cation alignment activities, or the establishment or
15 improvement of a statewide P–16 education data
16 system. The application shall include, at a minimum,
17 the following:

18 (A) A description of the activities and pro-
19 grams to be carried out with the grant funds
20 and a comprehensive plan for carrying out the
21 activities.

22 (B) A description of how the concerns and
23 interests of the larger education community, in-
24 cluding parents, students, teachers, teacher
25 educators, principals, and preschool administra-

1 tors will be represented in carrying out the au-
2 thorized activities described in subsection (e).

3 (C) In the case of a State applying for
4 funding for P–16 education alignment, a de-
5 scription of how the State will provide assist-
6 ance to local educational agencies in imple-
7 menting rigorous State academic content stand-
8 ards, substantive curricula, remediation, and
9 acceleration opportunities for students, as well
10 as other changes determined necessary by the
11 State.

12 (D) In the case of a State applying for
13 funding to establish or improve a statewide P–
14 16 education data system—

15 (i) a description of the privacy protec-
16 tion and enforcement measures that the
17 State has implemented or will implement
18 pursuant to subparagraph (C), and assur-
19 ances that these measures will be in place
20 prior to the establishment or improvement
21 of the statewide P–16 education data sys-
22 tem; and

23 (ii) an assurance that the State will
24 continue to fund the statewide P–16 edu-

1 cation data system after the end of the
2 grant period.

3 (g) SUPPLEMENT NOT SUPPLANT.—Grant funds
4 provided under this section shall be used to supplement,
5 not supplant, other Federal, State, and local funds avail-
6 able to carry out the authorized activities described in sub-
7 section (e).

8 (h) MATCHING REQUIREMENT.—Each State that re-
9 ceives a grant under this section shall provide, from non-
10 Federal sources, an amount equal to 100 percent of the
11 amount of the grant, in cash or in kind, to carry out the
12 activities supported by the grant.

13 (i) RULE OF CONSTRUCTION.—Nothing in this sec-
14 tion shall be construed to require States to provide raw
15 data to the Secretary.

16 (j) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to carry out this section
18 \$100,000,000 for fiscal year 2008 and such sums as may
19 be necessary for fiscal year 2009.

1 **TITLE V—MATHEMATICS AND**
2 **SCIENCE PARTNERSHIP**
3 **BONUS GRANTS.**

4 **SEC. 3501. MATHEMATICS AND SCIENCE PARTNERSHIP**
5 **BONUS GRANTS.**

6 (a) IN GENERAL.—From amounts appropriated
7 under subsection (d), the Secretary of Education shall
8 award a grant—

9 (1) for each of the school years 2007–2008
10 through 2010–2011, to each of the 3 elementary
11 schools and each of the 3 secondary schools each of
12 which has a high concentration of low income stu-
13 dents as defined in section 1707(2) of the Elemen-
14 tary and Secondary Education Act of 1965 (20
15 U.S.C. 6537(3)), in each State whose students dem-
16 onstrate the most improvement in mathematics, as
17 measured by the improvement in the students’ aver-
18 age score on the State’s assessments in mathematics
19 for the school year for which the grant is awarded,
20 as compared to the school year preceding the school
21 year for which the grant is awarded; and

22 (2) for each of the school years 2008–2009
23 through 2010–2011, to each of the 3 elementary
24 schools and each of the 3 secondary schools each of
25 which has a high concentration of low income stu-

1 dents as defined in section 1707(2) of the Elemen-
 2 tary and Secondary Education Act of 1965 (20
 3 U.S.C. 6537(3)), in each State whose students dem-
 4 onstrate the most improvement in science, as meas-
 5 ured by the improvement in the students' average
 6 score on the State's assessments in science for the
 7 school year for which the grant is awarded, as com-
 8 pared to the school year preceding the school year
 9 for which the grant is awarded.

10 (b) GRANT AMOUNT.—The amount of each grant
 11 awarded under this section shall be \$50,000.

12 **SEC. 3502. AUTHORIZATION OF APPROPRIATIONS.**

13 There are authorized to be appropriated to carry out
 14 this section such sums for fiscal years 2008 through 2011.

15 **DIVISION D—NATIONAL**
 16 **SCIENCE FOUNDATION**

17 **SEC. 4001. AUTHORIZATION OF APPROPRIATIONS.**

18 (a) IN GENERAL.—There are authorized to be appro-
 19 priated to the National Science Foundation—

- 20 (1) \$6,729,000,000 for fiscal year 2008;
 21 (2) \$7,738,000,000 for fiscal year 2009;
 22 (3) \$8,899,000,000 for fiscal year 2010; and
 23 (4) \$10,234,000,000 for fiscal year 2011.

24 (b) PLAN FOR INCREASED RESEARCH.—

1 (1) IN GENERAL.—Not later than 180 days
2 after the date of the enactment of this Act, the Di-
3 rector of the National Science Foundation, in con-
4 sultation with the National Science Board, shall sub-
5 mit a comprehensive, multiyear plan that describes
6 how the funds authorized in subsection (a) would be
7 used, if appropriated, to the Committee on Com-
8 merce, Science, and Transportation of the Senate,
9 the Committee on Health, Education, Labor, and
10 Pensions of the Senate, and the Committee on
11 Science of the House of Representatives.

12 (2) PLAN REQUIREMENTS.—The Director
13 shall—

14 (A) develop the plan with a focus on
15 strengthening the Nation’s lead in physical
16 science and technology, increasing overall work-
17 force skills in physical science, technology, engi-
18 neering, and mathematics at all levels, and
19 strengthening innovation by expanding the
20 focus of competitiveness and innovation policy
21 at the regional and local level; and

22 (B) emphasize spending increased research
23 funds appropriated pursuant to subsection (a)
24 in areas of investment for Federal research and

1 technology programs identified under section
2 1101(c) of this Act.

3 **SEC. 4002. STRENGTHENING OF EDUCATION AND HUMAN**
4 **RESOURCES DIRECTORATE THROUGH EQUI-**
5 **TABLE DISTRIBUTION OF NEW FUNDS.**

6 (a) **PURPOSE.**—The purpose of this section is to en-
7 sure the continued involvement of experts at the National
8 Science Foundation in improving science, technology, en-
9 gineering, and mathematics education at the elementary,
10 secondary, and postsecondary school levels by providing
11 annual funding increases for the education and human re-
12 sources programs of the National Science Foundation that
13 are proportional to the funding increases provided to the
14 Foundation overall.

15 (b) **EQUITABLE DISTRIBUTION OF NEW FUNDS.**—
16 Within the amounts authorized to be appropriated by sec-
17 tion 4001, there are authorized to be appropriated for the
18 education and human resources programs of the National
19 Science Foundation, for fiscal year 2008, \$1,050,000,000,
20 and, for each of the fiscal years 2009 through 2011, an
21 amount equal to \$1,050,000,000 increased for each such
22 fiscal year by an amount equal to the percentage increase
23 in the appropriation for the National Science Foundation
24 for such fiscal year above the amount appropriated to the
25 National Science Foundation for fiscal year 2008.

1 **SEC. 4003. GRADUATE FELLOWSHIPS AND GRADUATE**
2 **TRAINEESHIPS.**

3 (a) GRADUATE RESEARCH FELLOWSHIP PRO-
4 GRAM.—

5 (1) IN GENERAL.—During the 4-year period be-
6 ginning on the date of the enactment of this Act, the
7 Director of the National Science Foundation shall
8 expand the Graduate Research Fellowship Program
9 of the National Science Foundation so that an addi-
10 tional 1,250 fellowships are awarded to citizens or
11 nationals of the United States or eligible lawful per-
12 manent residents under the Program during that pe-
13 riod.

14 (2) EXTENSION OF FELLOWSHIP PERIOD.—The
15 Director is authorized to award fellowships under
16 the Graduate Research Fellowship Program for a
17 period of up to 5 years.

18 (3) AUTHORIZATION OF APPROPRIATIONS.—
19 Within the amounts authorized to be appropriated
20 by section 4001, there are authorized to be appro-
21 priated, to provide additional fellowships under the
22 Graduate Research Fellowship Program during each
23 of the fiscal years 2008 through 2011, the following:

24 (A) \$24,000,000 for fiscal year 2008.

25 (B) \$36,000,000 for fiscal year 2009.

26 (C) \$48,000,000 for fiscal year 2010.

1 (D) \$60,000,000 for fiscal year 2011.

2 (b) INTEGRATIVE GRADUATE EDUCATION AND RE-
3 SEARCH TRAINEESHIP PROGRAM.—

4 (1) IN GENERAL.—During the 4-year period be-
5 ginning on the date of the enactment of this Act, the
6 Director shall expand the Integrative Graduate Edu-
7 cation and Research Traineeship program of the Na-
8 tional Science Foundation so that an additional
9 1,250 individuals who are citizens or nationals of the
10 United States or eligible lawful permanent residents
11 are awarded grants under the program during that
12 period.

13 (2) AUTHORIZATION OF APPROPRIATIONS.—
14 Within the amounts authorized to be appropriated
15 by section 4001, there are authorized to be appro-
16 priated, to provide grants to additional individuals
17 under the Integrative Graduate Education and Re-
18 search Traineeship program during each of the fiscal
19 years 2008 through 2011, the following:

20 (A) \$22,000,000 for fiscal year 2008.

21 (B) \$33,000,000 for fiscal year 2009.

22 (C) \$44,000,000 for fiscal year 2010.

23 (D) \$55,000,000 for fiscal year 2011.

24 (c) DEFINITION OF ELIGIBLE LAWFUL PERMANENT
25 RESIDENT.—In this section, the term “eligible lawful per-

1 manent resident” means a lawful permanent resident of
2 the United States who declares an intent—

3 (1) to apply for United States citizenship; or

4 (2) to reside in the United States for not less
5 than 5 years after the completion of a graduate fel-
6 lowship or traineeship awarded under this section.

7 **SEC. 4004. PROFESSIONAL SCIENCE MASTER’S DEGREE**
8 **PROGRAMS.**

9 (a) CLEARINGHOUSE.—

10 (1) DEVELOPMENT.—The Director of the Na-
11 tional Science Foundation shall establish a clearing-
12 house, in collaboration with 4-year institutions of
13 higher education (including applicable graduate
14 schools and academic departments), and industries
15 and Federal agencies that employ science-trained
16 personnel, to share program elements used in suc-
17 cessful professional science master’s degree pro-
18 grams and other advanced degree programs related
19 to science, mathematics, technology, and engineer-
20 ing.

21 (2) AVAILABILITY.—The Director shall make
22 the clearinghouse of program elements developed
23 under paragraph (1) available to institutions of
24 higher education that are developing professional
25 science master’s degree programs.

1 (b) PROGRAMS.—

2 (1) PROGRAMS AUTHORIZED.—The Director
3 shall award grants to 4-year institutions of higher
4 education to facilitate the institutions' creation or
5 improvement of professional science master's degree
6 programs.

7 (2) APPLICATION.—A 4-year institution of
8 higher education desiring a grant under this section
9 shall submit an application at such time, in such
10 manner, and accompanied by such information as
11 the Director may require. The application shall
12 include—

13 (A) a description of the professional
14 science master's degree program that the insti-
15 tution of higher education will implement;

16 (B) the amount of funding from non-Fed-
17 eral sources, including from private industries,
18 that the institution of higher education shall
19 use to support the professional science master's
20 degree program; and

21 (C) an assurance that the institution of
22 higher education shall encourage students in
23 the professional science master's degree pro-
24 gram to apply for all forms of Federal assist-
25 ance available to such students, including appli-

1 cable graduate fellowships and student financial
2 assistance under titles IV and VII of the High-
3 er Education Act of 1965 (20 U.S.C. 1070 et
4 seq., 1133 et seq.).

5 (3) PREFERENCES.—The Director shall give
6 preference in making awards to 4-year institutions
7 of higher education seeking Federal funding to cre-
8 ate or improve professional science master's degree
9 programs, to those applicants—

10 (A) located in States with low percentages
11 of citizens with graduate or professional de-
12 grees, as determined by the Bureau of the Cen-
13 sus, that demonstrate success in meeting the
14 unique needs of the corporate, non-profit, and
15 government communities in the State, as evi-
16 denced by providing internships for professional
17 science master's degree students or similar
18 partnership arrangements; or

19 (B) that secure more than $\frac{2}{3}$ of the fund-
20 ing for such professional science master's de-
21 gree programs from sources other than the
22 Federal Government.

23 (4) NUMBER OF GRANTS; TIME PERIOD OF
24 GRANTS.—

1 (A) NUMBER OF GRANTS.—Subject to the
2 availability of appropriated funds, the Director
3 shall award grants under paragraph (1) to a
4 maximum of 200 4-year institutions of higher
5 education.

6 (B) TIME PERIOD OF GRANTS.—Grants
7 awarded under this section shall be for one 3-
8 year term. Grants may be renewed only once
9 for a maximum of 2 additional years.

10 (5) EVALUATION AND REPORTS.—

11 (A) DEVELOPMENT OF PERFORMANCE
12 BENCHMARKS.—Prior to the start of the grant
13 program, the Director of the National Science
14 Foundation, in collaboration with 4-year insti-
15 tutions of higher education (including applicable
16 graduate schools and academic departments),
17 and industries and Federal agencies that em-
18 ploy science-trained personnel, shall develop
19 performance benchmarks to evaluate the pilot
20 programs assisted by grants under this section.

21 (B) EVALUATION.—For each year of the
22 grant period, the Director, in consultation with
23 4-year institutions of higher education (includ-
24 ing applicable graduate schools and academic
25 departments), and industries and Federal agen-

1 cies that employ science-trained personnel, shall
2 complete an evaluation of each program as-
3 sisted by grants under this section. Any pro-
4 gram that fails to satisfy the performance
5 benchmarks developed under subparagraph (A)
6 shall not be eligible for further funding.

7 (C) REPORT.—Not later than 180 days
8 after the completion of an evaluation described
9 in subparagraph (B), the Director shall submit
10 a report to Congress that includes—

11 (i) the results of the evaluation de-
12 scribed in subparagraph (B); and

13 (ii) recommendations for administra-
14 tive and legislative action that could opti-
15 mize the effectiveness of the pilot pro-
16 grams, as the Director determines to be
17 appropriate.

18 (c) INSTITUTION OF HIGHER EDUCATION DE-
19 FINED.—In this section, the term “institution of higher
20 education” has the meaning given that term in section
21 101(a) of the Higher Education Act of 1965 (20 U.S.C.
22 1001(a)).

23 (d) AUTHORIZATION OF APPROPRIATIONS.—Within
24 the amounts authorized to be appropriated by section

1 4001, there are authorized to be appropriated to carry out
2 this section—

- 3 (1) \$15,000,000 for fiscal year 2008;
- 4 (2) \$18,000,000 for fiscal year 2009; and
- 5 (3) \$20,000,000 for each of the fiscal years
6 2010 and 2011.

7 **SEC. 4005. INCREASED SUPPORT FOR SCIENCE EDUCATION**
8 **THROUGH THE NATIONAL SCIENCE FOUNDA-**
9 **TION.**

10 (a) **IN GENERAL.**—Within the amounts authorized to
11 be appropriated by section 4001, there are authorized to
12 be appropriated to carry out the science, mathematics, en-
13 gineering, and technology talent expansion program under
14 section 8(7) of the National Science Foundation Author-
15 ization Act of 2002 (Public Law 107–368, 116 Stat.
16 3042)—

- 17 (1) \$40,000,000 for fiscal year 2008;
- 18 (2) \$45,000,000 for fiscal year 2009;
- 19 (3) \$50,000,000 for fiscal year 2010; and
- 20 (4) \$55,000,000 for fiscal year 2011.

21 (b) **PROMOTING OUTREACH AND HIGH QUALITY.**—
22 Section 8(7)(C) of the National Science Foundation Au-
23 thorization Act of 2002 (Public Law 107–368, 116 Stat.
24 3042) is amended—

1 (1) by redesignating clauses (i) through (vi) as
2 subclauses (I) through (VI), respectively, and in-
3 denting appropriately;

4 (2) by striking “include those that promote
5 high quality—” and inserting “include programs
6 that—

7 “(i) promote high-quality—”;

8 (3) in clause (i) (as inserted by paragraph
9 (2))—

10 (A) in subclause (III) (as redesignated by
11 paragraph (1)), by striking “for students;” and
12 inserting “for students, especially underrep-
13 resented minority and female mathematics,
14 science, engineering, and technology students;”;

15 (B) in subclause (V) (as redesignated by
16 paragraph (1)), by striking “and” after the
17 semicolon;

18 (C) in subclause (VI) (as redesignated by
19 paragraph (1)), by striking “students.” and in-
20 serting “students; and”; and

21 (D) by adding at the end the following:

22 “(VII) outreach programs that pro-
23 vide middle and secondary school students
24 and their science, technology, and math
25 teachers opportunities to increase the stu-

1 dents' and teachers' exposure to engineer-
2 ing and technology;"; and

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

4 “(ii) finance summer internships for math-
5 ematics, science, engineering, and technology
6 undergraduate students;

7 “(iii) facilitate the hiring of additional
8 mathematics, science, engineering, and tech-
9 nology faculty; and

10 “(iv) serve as bridges to enable underrep-
11 resented minority and female secondary school
12 students to obtain extra mathematics, science,
13 engineering, and technology training prior to
14 entering an institution of higher education.”.

15 **SEC. 4006. MEETING CRITICAL NATIONAL SCIENCE NEEDS.**

16 (a) **IN GENERAL.**—In addition to any other criteria,
17 the Director of the National Science Foundation shall in-
18 clude consideration of the degree to which awards and re-
19 search activities that otherwise qualify for support by the
20 National Science Foundation may assist in meeting crit-
21 ical national needs in innovation, competitiveness, the
22 physical and natural sciences, technology, engineering,
23 and mathematics.

24 (b) **PRIORITY TREATMENT.**—The Director shall give
25 priority in the selection of awards and the allocation of

1 National Science Foundation resources to proposed re-
2 search activities, and grants funded under the National
3 Science Foundation's Research and Related Activities Ac-
4 count, that can be expected to make contributions in phys-
5 ical or natural science, technology, engineering, or mathe-
6 matics, or that enhance competitiveness or innovation in
7 the United States.

8 (c) LIMITATION.—Nothing in this section shall be
9 construed to inhibit the grant selection process for funding
10 other areas of research deemed by the National Science
11 Foundation to be consistent with its mandate nor to
12 change the core mission of the National Science Founda-
13 tion.

14 **SEC. 4007. REAFFIRMATION OF THE MERIT-REVIEW PROC-**
15 **ESS OF THE NATIONAL SCIENCE FOUNDA-**
16 **TION.**

17 Nothing in this division or division A, or the amend-
18 ments made by this division or division A, shall be inter-
19 preted to require or recommend that the National Science
20 Foundation—

21 (1) alter or modify its merit-review system or
22 peer-review process; or

23 (2) exclude the awarding of any proposal by
24 means of the merit-review or peer-review process.

1 **SEC. 4008. EXPERIMENTAL PROGRAM TO STIMULATE COM-**
2 **PETITIVE RESEARCH.**

3 Within the amounts authorized to be appropriated by
4 section 4001, there are authorized to be appropriated to
5 the National Science Foundation for the Experimental
6 Program to Stimulate Competitive Research authorized
7 under section 113 of the National Science Foundation Au-
8 thorization Act of 1988 (42 U.S.C. 1862g), for fiscal year
9 2008, \$125,000,000, and, for each of fiscal years 2009
10 through 2011, an amount equal to \$125,000,000 in-
11 creased for each such year by an amount equal to the per-
12 centage increase in the appropriation for the National
13 Science Foundation for such fiscal year above the total
14 amount appropriated to the National Science Foundation
15 for fiscal year 2008.

16 **SEC. 4009. ENCOURAGING PARTICIPATION.**

17 (a) MENTORING PROGRAM.—The Director of the Na-
18 tional Science Foundation shall establish a program to re-
19 cruit and provide mentors for women who are interested
20 in careers in science, technology, engineering, and mathe-
21 matics by pairing such women who are in science, tech-
22 nology, engineering, or mathematics programs of study in
23 secondary school, community college, undergraduate or
24 graduate school with mentors who are working in indus-
25 try.

1 (b) ADDITIONAL LEARNING PROGRAM.—The Direc-
2 tor shall also establish a program to provide grants to
3 community colleges to provide additional learning and
4 other appropriate training to allow women to enter higher-
5 paying technical jobs in fields related to science, tech-
6 nology, engineering, or mathematics.

7 (c) APPLICATIONS.—An institution of higher edu-
8 cation, including a community college, desiring a grant
9 under this section shall submit an application at such
10 time, in such manner, and accompanied by such informa-
11 tion as the Director may require.

12 (d) PROGRAM EVALUATION.—The Director shall es-
13 tablish metrics to evaluate the success of the programs
14 established under subsections (a) and (b) annually and re-
15 port the findings and conclusions of the evaluations annu-
16 ally to Congress.

17 **SEC. 4010. CYBERINFRASTRUCTURE.**

18 In order to continue and expand efforts to ensure
19 that research institutions throughout the Nation can fully
20 participate in research programs of the National Science
21 Foundation and collaborate with colleagues throughout
22 the nation, the Director of the National Science Founda-
23 tion, within 180 days after the date of enactment of this
24 Act, shall develop and publish a plan that describes the
25 current status of broadband access for scientific research

1 purposes in States located in EPSCoR-eligible jurisdic-
 2 tions and outlines actions which can be taken to ensure
 3 that such connections are available to enable participation
 4 in those National Science Foundation programs which rely
 5 heavily on high-speed networking and collaborations
 6 across institutions and regions.

7 **SEC. 4011. FEDERAL INFORMATION AND COMMUNICATIONS**
 8 **TECHNOLOGY RESEARCH.**

9 (a) **ADVANCED INFORMATION AND COMMUNICATIONS**
 10 **TECHNOLOGY RESEARCH.—**

11 (1) **NATIONAL SCIENCE FOUNDATION INFORMA-**
 12 **TION AND COMMUNICATIONS TECHNOLOGY RE-**
 13 **SEARCH.—**The Director of the National Science
 14 Foundation shall establish a program of basic re-
 15 search in advanced information and communications
 16 technologies focused on enhancing or facilitating the
 17 availability and affordability of advanced commu-
 18 nications services to all people of the United States.
 19 In developing and carrying out the program, the Di-
 20 rector shall consult with the Board established under
 21 paragraph (2).

22 (2) **FEDERAL ADVANCED INFORMATION AND**
 23 **COMMUNICATIONS TECHNOLOGY RESEARCH**
 24 **BOARD.—**There is established within the National
 25 Science Foundation a Federal Advanced Information

1 and Communications Technology Research Board
2 (referred to in this subsection as “the Board”)
3 which shall advise the Director of the National
4 Science Foundation in carrying out the program au-
5 thorized under paragraph (1). The Board shall be
6 composed of individuals with expertise in informa-
7 tion and communications technologies, including rep-
8 resentatives from the National Telecommunications
9 and Information Administration, the Federal Com-
10 munications Commission, the National Institute of
11 Standards and Technology, and the Department of
12 Defense, and representatives from industry and edu-
13 cational institutions.

14 (3) GRANT PROGRAM.—The Director of the Na-
15 tional Science Foundation, in consultation with the
16 Board, shall award grants for basic research into ad-
17 vanced information and communications technologies
18 that will contribute to enhancing or facilitating the
19 availability and affordability of advanced commu-
20 nications services to all people of the United States.
21 Areas of research to be supported through the
22 grants include—

23 (A) affordable broadband access, including
24 wireless technologies;

25 (B) network security and reliability;

- 1 (C) communications interoperability;
- 2 (D) networking protocols and architec-
- 3 tures, including resilience to outages or attacks;
- 4 (E) trusted software;
- 5 (F) privacy;
- 6 (G) nanoelectronics for communications
- 7 applications;
- 8 (H) low-power communications electronics;
- 9 (I) implementation of equitable access to
- 10 national advanced fiber optic research and edu-
- 11 cational networks in noncontiguous States; and
- 12 (J) such other related areas as the Direc-
- 13 tor, in consultation with the Board, finds ap-
- 14 propriate.

15 (4) CENTERS.—The Director shall award

16 multiyear grants, subject to the availability of appro-

17 priations, to institutions of higher education (as de-

18 fined in section 101(a) of the Higher Education Act

19 of 1965 (20 U.S.C. 1001(a)), nonprofit research in-

20 stitutions affiliated with institutions of higher edu-

21 cation, or consortia thereof to establish multidisci-

22 plinary Centers for Communications Research. The

23 purpose of the Centers shall be to generate innova-

24 tive approaches to problems in communications and

25 information technology research, including the re-

1 search areas described in paragraph (3). Institutions
2 of higher education, nonprofit research institutions
3 affiliated with institutions of higher education, or
4 consortia receiving such grants may partner with 1
5 or more government laboratories or for-profit enti-
6 ties, or other institutions of higher education or non-
7 profit research institutions.

8 (5) APPLICATIONS.—The Director of the Na-
9 tional Science Foundation, in consultation with the
10 Board, shall establish criteria for the award of
11 grants under paragraphs (3) and (4). Such grants
12 shall be awarded under the programs on a merit-re-
13 viewed competitive basis. The Director shall give pri-
14 ority to grants that offer the potential for revolu-
15 tionary rather than evolutionary breakthroughs.

16 (6) AUTHORIZATION OF APPROPRIATIONS.—
17 Within the amounts authorized to be appropriated
18 by section 4001, there are authorized to be appro-
19 priated to the National Science Foundation to carry
20 out this subsection—

- 21 (A) \$45,000,000 for fiscal year 2008;
22 (B) \$50,000,000 for fiscal year 2009;
23 (C) \$55,000,000 for fiscal year 2010; and
24 (D) \$60,000,000 for fiscal year 2011.

1 (b) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY RESPONSIBILITIES.—The Director of the
3 National Institute of Standards and Technology shall con-
4 tinue to support research and support standards develop-
5 ment in advanced information and communications tech-
6 nologies focused on enhancing or facilitating the avail-
7 ability and affordability of advanced communications serv-
8 ices to all people of the United States, in order to imple-
9 ment the Institute’s responsibilities under section 2(c)(12)
10 of the National Institute of Standards and Technology Act
11 (15 U.S.C. 272(c)(12)). The Director shall support intra-
12 mural research and cooperative research with institutions
13 of higher education (as defined in section 101(a) of the
14 Higher Education Act of 1965 (20 U.S.C. 1001(a)) and
15 industry.

16 **SEC. 4012. ROBERT NOYCE TEACHER PROGRAM.**

17 (a) IN GENERAL.—Section 10 of the National
18 Science Foundation Authorization Act of 2002 (42 U.S.C.
19 1862n–1) is amended—

20 (1) in the section heading, by striking “**SCHOL-**
21 **ARSHIP**” and inserting “**TEACHER**”;

22 (2) in subsection (a)—

23 (A) in paragraph (1)—

1 (i) by striking “(or consortia of such
2 institutions)” and inserting “, consortia of
3 such institutions, or partnerships”;

4 (ii) by striking “to provide scholar-
5 ships, stipends, and programming de-
6 signed”;

7 (iii) by inserting “and to provide
8 scholarships, stipends, or fellowships to in-
9 dividuals participating in the program”
10 after “science teachers”; and

11 (iv) by striking “Scholarship” and in-
12 sserting “Teacher”;

13 (B) in paragraph (3)—

14 (i) in the matter preceding subpara-
15 graph (A), by striking “or consortia” and
16 inserting “consortia, or partnerships”;

17 (ii) in subparagraph (A)—

18 (I) in the matter preceding clause

19 (i)—

20 (aa) by striking “encourage
21 top college juniors and seniors
22 majoring in” and inserting “re-
23 cruit and prepare undergraduate
24 students to pursue degrees in”;
25 and

1 (bb) by striking “to become”
2 and inserting “and become quali-
3 fied as”;

4 (II) in clause (ii)—

5 (aa) by striking “programs
6 to help scholarship recipients”
7 and inserting “academic courses
8 and clinical teaching experiences
9 designed to prepare students par-
10 ticipating in the program”;

11 (bb) by striking “programs
12 that will result in” and inserting
13 “such preparation as is necessary
14 to meet requirements for”; and

15 (cc) by striking “licensing;
16 and” and inserting “licensing;”;

17 (III) in clause (iii)—

18 (aa) by striking “scholarship
19 recipients” and inserting “stu-
20 dents participating in the pro-
21 gram”;

22 (bb) by striking “enable the
23 recipients” and inserting “enable
24 the students”; and

1 (cc) by striking “; or” and
2 inserting “; and”; and

3 (IV) by adding at the end the fol-
4 lowing:

5 “(iv) providing summer internships
6 for freshman and sophomore students par-
7 ticipating in the program;”;

8 (iii) in subparagraph (B)—

9 (I) in the matter preceding clause

10 (i)—

11 (aa) by striking “encourage”
12 and inserting “recruit and pre-
13 pare”; and

14 (bb) by inserting “qualified
15 as” after “to become”;

16 (II) by striking clause (ii) and in-
17 serting the following:

18 “(ii) offering academic courses and
19 clinical teaching experiences designed to
20 prepare stipend recipients to teach in ele-
21 mentary schools and secondary schools, in-
22 cluding such preparation as is necessary to
23 meet requirements for teacher certification
24 or licensing; and”;

1 (III) in clause (iii), by striking
2 the period at the end and inserting “;
3 or”;

4 (iv) by adding at the end the fol-
5 lowing:

6 “(C) to develop and implement a program
7 to recruit and prepare mathematics, science, or
8 engineering professionals to become NSF
9 Teaching Fellows, and to recruit existing teach-
10 ers to become NSF Master Teaching Fellows,
11 through—

12 “(i) administering fellowships in ac-
13 cordance with subsection (e);

14 “(ii) offering academic courses and
15 clinical teaching experiences that are de-
16 signed to prepare students participating in
17 the program to teach in secondary schools
18 and that, in the case of NSF Teaching
19 Fellows, result in a master’s degree in
20 teaching and teacher certification or licens-
21 ing; and

22 “(iii) offering programs to partici-
23 pants to assist in the fulfillment of the
24 participants’ responsibilities under this sec-
25 tion, including mentoring, training, men-

1 toring training, and induction and profes-
2 sional development programs.”; and

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

4 “(4) ELIGIBILITY REQUIREMENT.—To be eligi-
5 ble for an award under this section, an institution
6 of higher education, a consortium of such institu-
7 tions, or a partnership shall ensure that specific fac-
8 ulty members and staff from the mathematics,
9 science, or engineering department of the institution
10 (or a participating institution of the consortium or
11 partnership) and specific education faculty members
12 of the institution (or such participating institution)
13 are designated to carry out the development and im-
14 plementation of the program. An institution of high-
15 er education and consortium may also include teach-
16 ers to participate in developing the pedagogical con-
17 tent of the program and to supervise students par-
18 ticipating in the program in the students’ field
19 teaching experiences. No institution of higher edu-
20 cation, consortium, or partnership shall be eligible
21 for an award unless faculty from the mathematics,
22 science, or engineering department of the institution
23 (or such participating institution) are active partici-
24 pants in the program.

1 “(5) MATCHING REQUIREMENT.—An institution
2 of higher education, consortium of institutions of
3 higher education, or partnership receiving a grant
4 under this section shall provide, from non-Federal
5 sources, an amount equal to 50 percent of the
6 amount of the grant (which may be provided in cash
7 or in-kind) to carry out the activities supported by
8 the grant.

9 “(6) SUPPLEMENT, NOT SUPPLANT.—Grant
10 funds provided under this section shall be used to
11 supplement, and not supplant, other Federal or
12 State funds available for the type of activities sup-
13 ported by the grant.”;

14 (3) in subsection (b)—

15 (A) in paragraph (1)—

16 (i) in the matter preceding subpara-
17 graph (A), by striking “or consortium”
18 and inserting “consortium, or partner-
19 ship”;

20 (ii) by striking subparagraph (A) and
21 inserting the following:

22 “(A) a description of the program that the
23 applicant intends to operate, including—

24 “(i) the number of scholarships and
25 summer internships or the size and num-

1 ber of stipends or fellowships the applicant
2 intends to award;

3 “(ii) the type of activities proposed for
4 the recruitment of students to the pro-
5 gram; and

6 “(iii) the selection process that will be
7 used in awarding the scholarships, sti-
8 pends, or fellowships;”;

9 (iii) in subparagraph (B)—

10 (I) by striking “scholarship or
11 stipend”; and

12 (II) by striking “; and” and in-
13 serting “, which may include a de-
14 scription of any existing programs at
15 the applicant’s institution that are
16 targeted to the education of mathe-
17 matics and science teachers and the
18 number of teachers graduated annu-
19 ally from such programs;”; and

20 (iv) by striking subparagraph (C) and
21 inserting the following:

22 “(C) a description of the academic courses
23 and clinical teaching experiences required under
24 subparagraph (A)(ii), (B)(ii), or (C)(ii) of sub-
25 section (a)(3), as applicable, including—

1 “(i)(I) a description of the under-
2 graduate program under subsection
3 (a)(3)(A)(ii) that will enable a student to
4 graduate in 4 years with a major in mathe-
5 matics, science, or engineering and to ob-
6 tain teacher certification or licensing; or

7 “(II) a description of the master’s de-
8 gree programs offered under subsection
9 (a)(3)(C)(ii);

10 “(ii) a description of clinical teaching
11 experiences proposed; and

12 “(iii) evidence of agreements between
13 the applicant and the schools or school dis-
14 tricts that are identified as the locations at
15 which clinical teaching experiences will
16 occur;

17 “(D) a description of the programs re-
18 quired under subparagraph (A)(iii), (B)(iii), or
19 (C)(iii) of subsection (a)(3), as applicable, in-
20 cluding activities to assist new teachers in ful-
21 filling their service requirements under this sec-
22 tion; and

23 “(E) an identification of the applicant’s
24 mathematics, science, or engineering faculty
25 and its education faculty who will carry out the

1 development and implementation of the pro-
2 gram as required under subsection (a)(4).”;

3 (B) in paragraph (2)—

4 (i) by redesignating subparagraphs
5 (B) through (E) as subparagraphs (C)
6 through (F), respectively;

7 (ii) by inserting after subparagraph
8 (A) the following:

9 “(B) the extent to which the applicant’s
10 mathematics, science, or engineering faculty
11 and its education faculty have worked or will
12 work collaboratively to design new or revised
13 curricula that recognize the specialized peda-
14 gogy required to teach mathematics and science
15 effectively in elementary schools and secondary
16 schools;”;

17 (iii) in subparagraph (D) (as redesign-
18 nated by clause (i)), by striking “or sti-
19 pend” and inserting “, stipend, or fellow-
20 ship”;

21 (4) in subsection (c)—

22 (A) in paragraph (3)—

23 (i) by striking “\$7,500” and inserting
24 “\$10,000”; and

1 (ii) by striking “of scholarship sup-
2 port” and inserting “of scholarship sup-
3 port, unless the Director establishes a poli-
4 cy by which part-time students may re-
5 ceive additional years of support”; and

6 (B) in paragraph (4), by inserting “with a
7 maximum service requirement of 4 years” after
8 “scholarship was received”;

9 (5) in subsection (d)—

10 (A) by striking paragraph (1) and insert-
11 ing the following:

12 “(1) IN GENERAL.—Stipends under this section
13 shall be available only to—

14 “(A) teachers enrolled in a master’s degree
15 program in science, technology, engineering, or
16 mathematics; and

17 “(B) mathematics, science, or engineering
18 professionals who, while receiving the stipend,
19 are enrolled in a program to receive certifi-
20 cation or licensing to teach.”;

21 (B) in paragraph (3), by inserting “, ex-
22 cept that if an individual is enrolled in a part-
23 time program, such stipend shall be prorated
24 according to the length of the program” after
25 “stipend support”; and

1 (C) in paragraph (4), by striking “for each
2 year a stipend was received”;

3 (6) by redesignating subsections (e) through (h)
4 and subsection (i) as subsections (f) through (i) and
5 subsection (l), respectively;

6 (7) by inserting after subsection (d) the fol-
7 lowing:

8 “(e) NATIONAL SCIENCE FOUNDATION TEACHING
9 FELLOWSHIPS.—

10 “(1) PURPOSE.—The purpose of the fellowships
11 under this subsection is to promote and recognize
12 high-level achievement in advanced mathematics and
13 science teaching.

14 “(2) PARTNERSHIP REQUIREMENTS.—In order
15 to receive a grant under this section to carry out
16 this subsection, the recipient of such grant shall be
17 a partnership and the only local educational agencies
18 that shall be members of the partnership shall be
19 local educational agencies that agree not to reduce
20 the base salary normally paid to an individual solely
21 because such individual receives a salary supplement
22 under this subsection.

23 “(3) GENERAL CRITERIA.—A partnership re-
24 ceiving a grant to carry out a fellowship program

1 under this subsection shall award such fellowships
2 only to—

3 “(A) mathematics, science, or engineering
4 professionals who enroll in 1-year master’s de-
5 gree programs in teaching that result in teacher
6 certification or licensing and who shall be re-
7 ferred to as ‘NSF Teaching Fellows’; and

8 “(B) mathematics and science teachers
9 who possess a master’s degree in their field and
10 who shall be referred to as ‘NSF Master Teach-
11 ing Fellows’.

12 “(4) SELECTION.—Individuals shall be selected
13 to receive fellowships under this section primarily on
14 the basis of—

15 “(A) professional achievement;

16 “(B) academic merit;

17 “(C) demonstrated advanced content
18 knowledge; and

19 “(D) in the case of NSF Master Teaching
20 Fellows, demonstrated success in improving stu-
21 dent academic achievement in mathematics,
22 science, technology, or engineering.

23 “(5) USE OF FUNDS.—Each partnership receiv-
24 ing a grant under this section to award fellowships
25 under this subsection shall—

1 “(A) provide a stipend to each NSF
2 Teaching Fellow for the duration of the Fel-
3 low’s enrollment in the master’s degree pro-
4 gram, to be used to offset the cost of tuition,
5 fees, and living expenses; and

6 “(B) provide salary supplements to each
7 NSF Teaching Fellow and NSF Master Teach-
8 ing Fellow during the period of the Fellow’s
9 service obligation under paragraph (4).

10 “(6) SERVICE OBLIGATION.—If an individual is
11 awarded a fellowship under this subsection, that in-
12 dividual shall be required to serve in a high-need
13 local educational agency for—

14 “(A) in the case of a NSF Teaching Fel-
15 low, 4 years; and

16 “(B) in the case of a NSF Master Teach-
17 ing Fellow, 5 years.

18 “(7) DUTIES.—A recipient of a fellowship
19 under this section, during the service obligation re-
20 quired under paragraph (6) and in addition to reg-
21 ular classroom activities, shall take on a leadership
22 role within the school or local educational agency in
23 which the recipient is employed, as defined by the
24 partnership according to the recipient’s expertise, in-
25 cluding serving as a mentor or master teacher, de-

1 veloping curricula, and assisting in the development
2 and implementation of professional development ac-
3 tivities.”;

4 (8) in subsection (f) (as redesignated by para-
5 graph (6))—

6 (A) by striking paragraph (1) and insert-
7 ing the following:

8 “(1) accepting—

9 “(A) the terms of the scholarship pursuant
10 to subsection (c), the stipend pursuant to sub-
11 section (d), or the fellowship pursuant to sub-
12 section (e); and

13 “(B) the terms regarding the failure to
14 complete a service obligation required for the
15 scholarship, stipend, or fellowship pursuant to
16 subsection (h);”;

17 (B) in paragraph (3)—

18 (i) by striking “scholarship” and in-
19 serting “scholarship, stipend, or fellow-
20 ship”; and

21 (ii) by striking “subsection (g)” and
22 inserting “subsection (h)”;

23 (9) in subsection (g)(1) (as redesignated by
24 paragraph (6))—

1 (A) by striking “(or consortium thereof)”
2 and inserting “, consortium, or partnership”;
3 and

4 (B) by striking “scholarship and stipend”
5 and inserting “scholarship, stipend, and fellow-
6 ship”;

7 (10) in subsection (h) (as redesignated by para-
8 graph (6))—

9 (A) in paragraph (1)—

10 (i) in the matter preceding subpara-
11 graph (A), by inserting “, stipend, or fel-
12 lowship” after “scholarship”; and

13 (ii) in subparagraph (C), by striking
14 “baccalaureate degree”; and

15 (B) by striking paragraph (2) and insert-
16 ing the following:

17 “(2) REPAYMENT FOR FAILURE TO COMPLETE
18 SERVICE.—

19 “(A) LESS THAN 1 YEAR OF SERVICE.—If
20 a circumstance described in paragraph (1) oc-
21 curs before the completion of 1 year of a service
22 obligation under this section, the sum of the
23 total amount of awards received by the indi-
24 vidual under this section shall be treated as a
25 loan payable to the Federal Government, con-

1 sistent with the provisions of part B or D of
2 title IV of the Higher Education Act of 1965,
3 and shall be subject to repayment in accordance
4 with terms and conditions specified by the Sec-
5 retary of Education in regulations promulgated
6 to carry out this paragraph.

7 “(B) 1 YEAR OR MORE OF SERVICE.—If a
8 circumstance described in subparagraph (D) or
9 (E) of paragraph (1) occurs after the comple-
10 tion of 1 year of a service obligation under this
11 section, an amount equal to $\frac{1}{2}$ of the sum of
12 the total amount of awards received by the indi-
13 vidual under this section shall be treated as a
14 loan payable to the Federal Government, con-
15 sistent with the provisions of part B or D of
16 title IV of the Higher Education Act of 1965,
17 and shall be subject to repayment in accordance
18 with terms and conditions specified by the Sec-
19 retary of Education in regulations promulgated
20 to carry out this paragraph.”;

21 (11) in subsection (i) (as redesignated by para-
22 graph (6))—

23 (A) by striking “or consortia” and insert-
24 ing “, consortia, or partnerships”;

1 (B) by striking “scholarship recipients and
2 stipend recipients” and inserting “scholarship,
3 stipend, and fellowship recipients”; and

4 (C) by striking “subsection (e)” and in-
5 serting “subsection (f)”;

6 (12) by inserting after subsection (i) (as reded-
7 igned by paragraph (6)) the following:

8 “(j) SCIENCE AND MATHEMATICS SCHOLARSHIP
9 GIFT FUND.—In accordance with section 11(f) of the Na-
10 tional Science Foundation Act of 1950, the Director is au-
11 thorized to accept donations from the private sector to
12 supplement, but not supplant, scholarships, stipends, in-
13 ternships, or fellowships associated with the programs
14 under this section.

15 “(k) ASSESSMENT OF TEACHER RETENTION.—Not
16 later than 4 years after the date of enactment of the
17 America COMPETES Act, the Director shall transmit to
18 Congress a report on the effectiveness of the program car-
19 ried out under this section regarding the retention of par-
20 ticipants in the teaching profession beyond the service ob-
21 ligation required under this section.”;

22 (13) in subsection (l) (as redesignated by para-
23 graph (6))—

1 (A) by redesignating paragraphs (1), (2),
2 (3), (4), and (5) as paragraphs (2), (5), (7),
3 (9), and (10), respectively;

4 (B) by inserting before paragraph (2) (as
5 redesignated by subparagraph (A)) the fol-
6 lowing:

7 “(1) the term ‘advanced content knowledge’
8 means demonstrated mathematics or science content
9 knowledge as measured by a rigorous, valid assess-
10 ment tool that has been approved by the Director;”;

11 (C) by inserting after paragraph (2) (as
12 redesignated by subparagraph (A)) the fol-
13 lowing:

14 “(3) the term ‘fellowship’ means an award
15 under subsection (e);

16 “(4) the term ‘high-need local educational agen-
17 cy’ means a local educational agency or educational
18 service agency (as defined in section 9101 of the El-
19 elementary and Secondary Education Act of 1965)—

20 “(A)(i) that serves not less than 10,000
21 children from low-income families;

22 “(ii) for which not less than 20 percent of
23 the children served by the agency are children
24 from low-income families; or

1 “(iii) with a total of less than 600 students
2 in average daily attendance at the schools that
3 are served by the agency, and all of whose
4 schools are designated with a school locale code
5 of 6, 7, or 8, as determined by the Secretary of
6 Education; and

7 “(B)(i) for which there is a higher percent-
8 age of teachers providing instruction in aca-
9 demic subject areas or grade levels for which
10 the teachers are not highly qualified; or

11 “(ii) for which there is a high teacher
12 turnover rate or a high percentage of teachers
13 with emergency, provisional, or temporary cer-
14 tification or licensure;”;

15 (D) in paragraph (5) (as redesignated by
16 subparagraph (A)), by inserting “engineering,”
17 after “mathematics, science,”;

18 (E) by inserting after paragraph (5) (as
19 redesignated by subparagraph (A)) the fol-
20 lowing:

21 “(6) the term ‘mathematics and science teach-
22 ing’ means mathematics, science, engineering, or
23 technology teaching at the elementary or secondary
24 school level;”;

1 (F) in paragraph (7) (as redesignated by
2 subparagraph (A)) by inserting “or had a ca-
3 reer” after “is working”; and

4 (G) by inserting after paragraph (7) (as
5 redesignated by subparagraph (A)) the fol-
6 lowing:

7 “(8) the term ‘partnership’ means a partner-
8 ship that shall include—

9 “(A) an institution of higher education or
10 a consortium of such institutions;

11 “(B) a department within an institution of
12 higher education participating in the partner-
13 ship that provides an advanced program of
14 study in mathematics and science;

15 “(C)(i) a school or department within an
16 institution of higher education participating in
17 the partnership that provides a master teacher’s
18 preparation program; or

19 “(ii) a 2-year institution of higher edu-
20 cation that has a teacher preparation offering
21 or a dual enrollment program with an institu-
22 tion of higher education participating in the
23 partnership;

24 “(D) not less than 1 high-need local edu-
25 cational agency and a public school or a consor-

1 tium of public schools served by the agency;
2 and

3 “(E) 1 or more nonprofit organizations
4 that have the capacity to provide expertise or
5 support to meet the purposes of this section;”;
6 and

7 (14) by adding at the end the following:

8 “(m) AUTHORIZATION OF APPROPRIATIONS.—

9 “(1) IN GENERAL.—Within the amounts au-
10 thorized to be appropriated by section 4001 of the
11 America COMPETES Act and except as provided in
12 paragraph (2), there are authorized to be appro-
13 priated to the Director for the Robert Noyce Teach-
14 er Program under this section—

15 “(A) \$117,000,000 for fiscal year 2008, of
16 which at least \$18,000,000 shall be used for ca-
17 pacity building activities described in clauses
18 (ii) and (iii) of subsection (a)(3)(A), clauses (ii)
19 and (iii) of subsection (a)(3)(B), and clauses
20 (ii) and (iii) of subsection (a)(3)(C);

21 “(B) \$130,000,000 for fiscal year 2009, of
22 which at least \$21,000,000 shall be used for
23 such capacity building activities;

1 “(C) \$148,000,000 for fiscal year 2010, of
2 which at least \$24,000,000 shall be used for
3 such capacity building activities; and

4 “(D) \$200,000,000 for fiscal year 2011, of
5 which at least \$27,000,000 shall be used for
6 such capacity building activities.

7 “(2) EXCEPTION.—For any fiscal year for
8 which the funding allocated for activities under this
9 section is less than \$105,000,000, the amount of
10 funding available for capacity building activities de-
11 scribed in subparagraphs (A) through (D) of para-
12 graph (1) shall not exceed 15 percent of the allo-
13 cated funds.”.

14 (b) CONFORMING AMENDMENTS.—

15 (1) SECTION 4.—Section 4 of the National
16 Science Foundation Authorization Act of 2002 (42
17 U.S.C. 1862n note) is amended in the matter pre-
18 ceding paragraph (1) by striking “In this Act:” and
19 inserting “Except as otherwise provided, in this
20 Act:”.

21 (2) SECTION 8.—Section 8(6) of the National
22 Science Foundation Authorization Act of 2002 (Pub-
23 lic Law 107–368) is amended—

1 (A) in the paragraph heading, by striking
 2 “SCHOLARSHIP” and inserting “TEACHER”;
 3 and

4 (B) by striking “Scholarship” and insert-
 5 ing “Teacher”.

6 **SEC. 4013. SENSE OF THE SENATE REGARDING THE MATHE-**
 7 **MATICS AND SCIENCE PARTNERSHIP PRO-**
 8 **GRAMS OF THE DEPARTMENT OF EDUCATION**
 9 **AND THE NATIONAL SCIENCE FOUNDATION.**

10 It is the sense of the Senate that—

11 (1) although the mathematics and science edu-
 12 cation partnership program at the National Science
 13 Foundation and the mathematics and science part-
 14 nership program at the Department of Education
 15 practically share the same name, the 2 programs are
 16 intended to be complementary, not duplicative;

17 (2) the National Science Foundation partner-
 18 ship programs are innovative, model reform initia-
 19 tives that move promising ideas in education from
 20 research into practice to improve teacher quality, de-
 21 velop challenging curricula, and increase student
 22 achievement in mathematics and science, and Con-
 23 gress intends that the National Science Foundation
 24 peer-reviewed partnership programs found to be ef-
 25 fective should be put into wider practice by dissemi-

1 nation through the Department of Education part-
2 nership programs; and

3 (3) the Director of the National Science Foun-
4 dation and the Secretary of Education should have
5 ongoing collaboration to ensure that the 2 compo-
6 nents of this priority effort for mathematics and
7 science education continue to work in concert for the
8 benefit of States and local practitioners nationwide.

9 **SEC. 4014. NATIONAL SCIENCE FOUNDATION TEACHER IN-**
10 **STITUTES FOR THE 21ST CENTURY.**

11 (a) **AUTHORIZATION OF APPROPRIATIONS.**—Within
12 the amounts authorized to be appropriated by section
13 4001, there are authorized to be appropriated to carry out
14 the teacher institutes for the 21st century under para-
15 graphs (3) and (7) of section 9(a) of the National Science
16 Foundation Authorization Act of 2002 (as amended by
17 subsection (b)) (42 U.S.C. 1862n(a))—

- 18 (1) \$84,000,000 for fiscal year 2008;
19 (2) \$94,000,000 for fiscal year 2009;
20 (3) \$106,000,000 for fiscal year 2010; and
21 (4) \$140,000,000 for fiscal year 2011.

22 (b) **TEACHER INSTITUTES FOR THE 21ST CEN-**
23 **TURY.**—Section 9(a) of the National Science Foundation
24 Authorization Act of 2002 (42 U.S.C. 1862n(a)) is
25 amended—

1 (1) in paragraph (3)(B), by striking “summer
2 or” and inserting “teacher institutes for the 21st
3 century, as described in paragraph (7),”;

4 (2) by redesignating paragraph (7) as para-
5 graph (8); and

6 (3) by inserting after paragraph (6) the fol-
7 lowing:

8 “(7) TEACHER INSTITUTES FOR THE 21ST CEN-
9 TURY.—

10 “(A) IN GENERAL.—Teacher institutes for
11 the 21st century carried out in accordance with
12 paragraph (3)(B) shall—

13 “(i) be carried out in conjunction with
14 a school served by the local educational
15 agency in the partnership;

16 “(ii) be science, technology, engineer-
17 ing, and mathematics focused institutes
18 that provide professional development to
19 elementary school and secondary school
20 teachers;

21 “(iii) serve teachers who are consid-
22 ered highly qualified (as defined in section
23 9101 of the Elementary and Secondary
24 Education Act of 1965), teach high-need
25 subjects, and teach in high-need schools

1 (as described in section 1114(a)(1) of the
2 Elementary and Secondary Education Act
3 of 1965);

4 “(iv) focus on the theme and struc-
5 ture developed by the Director under sub-
6 paragraph (C);

7 “(v) be content-based and build on
8 school year curricula that are experiment-
9 oriented, content-based, and grounded in
10 current research;

11 “(vi) ensure that the pedagogy compo-
12 nent is designed around specific strategies
13 that are relevant to teaching the subject
14 and content on which teachers are being
15 trained, which may include training teach-
16 ers in the essential components of reading
17 instruction for adolescents in order to im-
18 prove student reading skills within the sub-
19 ject areas of science, technology, engineer-
20 ing, and mathematics;

21 “(vii) be a multiyear program that is
22 conducted for a period of not less than 2
23 weeks per year;

1 “(viii) provide for direct interaction
2 between participants in and faculty of the
3 teacher institute;

4 “(ix) have a component that includes
5 the use of the Internet;

6 “(x) provide for followup training in
7 the classroom during the academic year for
8 a period of not less than 3 days, which
9 may or may not be consecutive, for partici-
10 pants in the teacher institute, except that
11 for teachers in rural local educational
12 agencies, the followup training may be pro-
13 vided through the Internet;

14 “(xi) provide teachers participating in
15 the teacher institute with travel expense
16 reimbursement and classroom materials re-
17 lated to the teacher institute, and may in-
18 clude providing stipends as necessary; and

19 “(xii) establish a mechanism to pro-
20 vide supplemental support during the aca-
21 demic year for teacher institute partici-
22 pants to apply the knowledge and skills
23 gained at the teacher institute.

24 “(B) OPTIONAL MEMBERS OF THE PART-
25 NERSHIP.—In addition to the partnership re-

1 quirement under paragraph (2), an institution
2 of higher education or eligible nonprofit organi-
3 zation (or consortium) desiring a grant for a
4 teacher institute for the 21st century may also
5 partner with a teacher organization, museum,
6 or educational partnership organization.

7 “(C) **THEME AND STRUCTURE.**—Each
8 year, not later than 180 days before the appli-
9 cation deadline for a grant under this section,
10 the Director shall, in consultation with a broad
11 group of relevant education organizations, de-
12 velop a theme and structure for the teacher in-
13 stitutes of the 21st century supported under
14 paragraph (3)(B).”.

15 **SEC. 4015. PARTNERSHIPS FOR ACCESS TO LABORATORY**
16 **SCIENCE.**

17 (a) **GRANT PROGRAM.**—Section 8(8) of the National
18 Science Foundation Authorization Act of 2002 (Public
19 Law 107–368) is amended—

20 (1) by redesignating subparagraphs (A) through
21 (F) as clauses (i) through (vi), respectively, and in-
22 denting appropriately;

23 (2) by moving the flush language at the end 2
24 ems to the right;

1 (3) in the flush language at the end, by striking
2 “paragraph” and inserting “subparagraph”;

3 (4) by striking “INITIATIVE.—A program of”
4 and inserting “INITIATIVE.—

5 “(A) IN GENERAL.—A program of”; and

6 (5) by inserting at the end the following:

7 “(B) PILOT PROGRAM.—

8 “(i) IN GENERAL.—In accordance
9 with subparagraph (A)(v), the Director
10 shall establish a pilot program designated
11 as ‘Partnerships for Access to Laboratory
12 Science’ to award grants to partnerships to
13 pay the Federal share of the costs of im-
14 proving laboratories and providing instru-
15 mentation as part of a comprehensive pro-
16 gram to enhance the quality of mathe-
17 matics, science, engineering, and tech-
18 nology instruction at the secondary school
19 level. Grants under this subparagraph may
20 be used for—

21 “(I) purchase, rental, or leasing
22 of equipment, instrumentation, and
23 other scientific educational materials;

24 “(II) acquire appropriate
25 nanotechnology equipment and soft-

1 ware designed for teaching students
2 about nanotechnology in the class-
3 room;

4 “(III) professional development
5 and training for teachers aligned with
6 activities supported under section
7 2123 of the ESEA of 1965;

8 “(IV) development of instruc-
9 tional programs designed to integrate
10 the laboratory experience with class-
11 room instruction and to be consistent
12 with State mathematics and science,
13 and to the extent applicable, tech-
14 nology and engineering, academic
15 achievement standards;

16 “(V) training in laboratory safety
17 for relevant school personnel;

18 “(VI) design and implementation
19 of hands-on laboratory experiences to
20 encourage the interest of individuals
21 identified in section 33 or 34 of the
22 Science and Engineering Equal Op-
23 portunities Act (42 U.S.C. 1885a or
24 1885b) in mathematics, science, engi-
25 neering, and technology and help pre-

1 pare such individuals to pursue post-
2 secondary studies in these fields; and

3 “(VII) assessment of the activi-
4 ties funded under this subparagraph.

5 “(ii) PARTNERSHIP.—Grants awarded
6 under clause (i) shall be to a partnership
7 that—

8 “(I) includes an institution of
9 higher education or a community col-
10 lege;

11 “(II) includes a high-need local
12 educational agency;

13 “(III) includes a business or eli-
14 gible nonprofit organization; and

15 “(IV) may include a State edu-
16 cational agency, other public agency,
17 National Laboratory, or community-
18 based organization.

19 “(iii) FEDERAL SHARE.—The Federal
20 share of the cost of activities carried out
21 using amounts from a grant under clause
22 (i) shall not exceed 30 percent.”.

23 (b) REPORT.—The Director of the National Science
24 Foundation shall evaluate the effectiveness of activities
25 carried out under the pilot projects funded by the grant

1 program established pursuant to the amendment made by
2 subsection (b) in improving student performance in math-
3 ematics, science, engineering, and technology and rec-
4 ommend whether such activities should continue. A report
5 documenting the results of that evaluation shall be sub-
6 mitted to the Committee on Commerce, Science, and
7 Transportation and the Committee on Health, Education,
8 Labor, and Pensions of the Senate and the Committee on
9 Science and Technology of the House of Representatives
10 not later than 3 years after the date of enactment of this
11 Act. The report shall identify best practices and materials
12 for the classroom developed and demonstrated by grant
13 awardees.

14 (c) SUNSET.—The provisions of this section shall
15 cease to have force or effect at the beginning of fiscal year
16 2012.

17 (d) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to the National Science
19 Foundation to carry out this section and the amendments
20 made by this section such sums for fiscal year 2008 and
21 each of the 3 succeeding fiscal years.

1 **DIVISION E—GENERAL**
2 **PROVISIONS**

3 **SEC. 5001. COLLECTION OF DATA RELATING TO TRADE IN**
4 **SERVICES.**

5 (a) **IN GENERAL.**—Not later than 90 days after the
6 date of the enactment of this Act, the Secretary of Com-
7 merce shall establish a program within the Bureau of Eco-
8 nomic Analysis to collect and study data relating to export
9 and import of services. As part of the program, the Sec-
10 retary shall annually—

11 (1) provide data collection and analysis relating
12 to export and import of services;

13 (2) collect and analyze data for service imports
14 and exports in not less than 40 service industry cat-
15 egories, on a state-by-state basis;

16 (3) include data collection and analysis of the
17 employment effects of exports and imports on the
18 service industry; and

19 (4) integrate ongoing and planned data collec-
20 tion and analysis initiatives in research and develop-
21 ment and innovation.

22 (b) **AUTHORIZATION OF APPROPRIATIONS.**—There
23 are authorized to be appropriated to the Department of
24 Commerce such sums for each of the fiscal years 2008,

1 2009, 2010, 2011, 2012, to carry out the provisions of
2 this section.

3 **SEC. 5002. SENSE OF THE SENATE REGARDING SMALL**
4 **BUSINESS GROWTH AND CAPITAL MARKETS.**

5 (a) FINDINGS.—The Congress finds that—

6 (1) the United States has the most fair, most
7 transparent, and most efficient capital markets in
8 the world, in part due to its strong securities statu-
9 tory and regulatory scheme;

10 (2) it is of paramount importance for the con-
11 tinued growth of our Nation’s economy, that our
12 capital markets retain their leading position in the
13 world;

14 (3) small businesses are vital participants in
15 United States capital markets, and play a critical
16 role in future economic growth and high-wage job
17 creation;

18 (4) section 404 of the Sarbanes-Oxley Act of
19 2002, has greatly enhanced the quality of corporate
20 governance and financial reporting for public compa-
21 nies and increased investor confidence;

22 (5) the Securities and Exchange Commission
23 (in this section referred to as the “Commission”)
24 and the Public Company Accounting Oversight
25 Board (in this section referred to as the “PCAOB”)

1 have both determined that the current auditing
2 standard implementing section 404 of the Sarbanes-
3 Oxley Act of 2002 has imposed unnecessary and un-
4 intended cost burdens on small and mid-sized public
5 companies;

6 (6) the Commission and PCAOB are now near
7 completion of a 2-year process intended to revise the
8 standard in order to provide more efficient and ef-
9 fective regulation; and

10 (7) the chairman of the Commission recently
11 has said, with respect to section 404 of the Sar-
12 banes-Oxley Act of 2002, that, “We don’t need to
13 change the law, we need to change the way the law
14 is implemented. It is the implementation of the law
15 that has caused the excessive burden, not the law
16 itself. That’s an important distinction. I don’t be-
17 lieve these important investor protections, which are
18 even now only a few years old, should be opened up
19 for amendment, or that they need to be.”

20 (b) SENSE OF THE SENATE.—It is the sense of the
21 Senate that the Commission and the PCAOB should com-
22 plete promulgation of the final rules implementing section
23 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7262).

1 **SEC. 5003. GOVERNMENT ACCOUNTABILITY OFFICE RE-**
2 **VIEW OF ACTIVITIES, GRANTS, AND PRO-**
3 **GRAMS.**

4 Not later than 3 years after the date of enactment
5 of this Act, the Comptroller General of the United States
6 shall submit a report to Congress that—

7 (1) examines each annual and interim report
8 required to be submitted to Congress under this Act
9 (including any amendment made by this Act);

10 (2) assesses or evaluates assessments of the ef-
11 fectiveness of the new or expended activities, grants,
12 and programs carried out under this Act (including
13 any amendment made by this Act); and

14 (3) includes any recommendations as the Comp-
15 troller General determines are appropriate to im-
16 prove the effectiveness of such activities, grants, and
17 programs.

18 **SEC. 5004. PROHIBITION AGAINST FUNDING ANTI-COMPETI-**
19 **TIVENESS.**

20 Notwithstanding any other provision of the Law; no
21 federal funds shall be provided to any organization or enti-
22 ty that advocates against tax competition or United States
23 tax competitiveness.

24 Provided, however, that advocating for effective tax
25 information exchange, advocating for effective transfer
26 pricing, and advocating for income tax treaties is not con-

1 sidered to be advocating against tax competition of United
2 States tax competitiveness.

3 **SEC. 5005. FEASIBILITY STUDY ON FREE ONLINE COLLEGE**
4 **DEGREE PROGRAM.**

5 (a) IN GENERAL.—Not later than 90 days after the
6 date of enactment of this Act, the Secretary of Commerce
7 shall enter into a contract with the National Academy of
8 Sciences to conduct and complete a feasibility study on
9 creating a national, free online college degree program
10 that would be available to all individuals described under
11 section 484(a)(5) of the Higher Education Act of 1965
12 (20 U.S.C. 1091(a)(5)) who wish to pursue a degree in
13 a field of strategic importance to the United States and
14 where expertise is in demand, such as mathematics,
15 sciences, and foreign languages. The study shall look at
16 the need for a free college degree program as well as the
17 feasibility of—

- 18 (1) developing online course content;
19 (2) developing sufficiently rigorous tests to de-
20 termine mastery of a field of study; and
21 (3) sustaining the program through private
22 funding.

23 (b) STUDY.—The study described in subsection (a)
24 shall also include a review of existing online education pro-
25 grams to determine the extent to which these programs

1 offer a rigorous curriculum in areas like mathematics and
2 science and the National Academy of Sciences shall make
3 recommendations for how online degree programs can be
4 assessed and accredited.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—There
6 are authorized to be appropriated to carry out this section
7 \$500,000 for fiscal year 2008.

8 **SEC. 5006. SENSE OF THE SENATE REGARDING DEEMED EX-**
9 **PORTS.**

10 It is the sense of Senate that—

11 (1) United States government policies related to
12 deemed exports should safeguard United States na-
13 tional security and protect fundamental research.

14 (2) The Department of Commerce has estab-
15 lished the Deemed Export Advisory Committee to
16 develop recommendations for improving current con-
17 trols on deemed exports.

18 (3) The Administration and Congress should
19 consider the recommendations of the Deemed Export
20 Advisory Committee in its development and imple-
21 mentation of export control policies.

22 **SEC. 5007. SENSE OF THE SENATE REGARDING CAPITAL**
23 **MARKETS.**

24 (a) FINDINGS.—The Senate finds that—

1 (1) United States capital markets are losing
2 their competitive edge in the face of intensifying
3 global competition, posing a risk to economic
4 growth, a problem that is well-documented in initial
5 public offerings (IPO), over-the-counter (OTC) de-
6 rivatives, securitization, and traditional lending;

7 (2) according to the Senator Charles E. Schu-
8 mer and Mayor Michael R. Bloomberg report, enti-
9 tled “Sustaining New York’s and the US’s Global
10 Financial Services Leadership”, “In looking at sev-
11 eral of the critical contested investment banking and
12 sales and trading markets—initial public offerings
13 (IPOs), over-the-counter (OTC) derivatives, and
14 debt—it is clear that the declining position of the
15 US goes beyond this natural market evolution to
16 more controllable, intrinsic issues of US competitive-
17 ness. As market effectiveness, liquidity and safety
18 become more prevalent in the world’s financial mar-
19 kets, the competitive arena for financial services is
20 shifting toward a new set of factors—like availability
21 of skilled people and a balanced and effective legal
22 and regulatory environment—where the US is mov-
23 ing in the wrong direction.”;

24 (3) further, the report referred to in paragraph
25 (2) stated that—

1 (A) “The IPO market also offers the most
2 dramatic illustration of the change in capital-
3 raising needs around the world, and US ex-
4 changes are rapidly losing ground to foreign ri-
5 vals. When looking at all IPOs that took place
6 globally in 2006, the share of IPO volume at-
7 tracted by US exchanges is barely one-third of
8 that captured in 2001. By contrast, the global
9 share of IPO volume captured by European ex-
10 changes has expanded by more than 30 percent
11 over the same period, while non-Japan Asian
12 markets have doubled their equivalent market
13 share since 2001. When one considers mega-
14 IPOs – those over \$1 billion – US exchanges
15 attracted 57 percent of such transactions in
16 2001, compared with just 16 percent during the
17 first ten months of 2006.”; and

18 (B) “London already enjoys clear leader-
19 ship in the fast-growing and innovative over-
20 the-counter (OTC) derivatives market. This is
21 significant because of the trading flow that sur-
22 rounds derivatives markets and because of the
23 innovation these markets drive, both of which
24 are key competitive factors for financial centers.
25 Dealers and investors increasingly see deriva-

1 tives and cash markets as interchangeable and
2 are therefore combining trading operations for
3 both products. Indeed, the derivatives markets
4 can be more liquid than the underlying cash
5 markets. Therefore, as London takes the global
6 lead in derivatives, America’s competitiveness in
7 both cash and derivatives flow trading is at
8 risk, as is its position as a center for financial
9 innovation.”;

10 (4) on March 13, 2007, the Department of the
11 Treasury convened a conference on United States
12 capital markets competitiveness, where—

13 (A) key policymakers, consumer advocates,
14 members of the international community, busi-
15 ness representatives, and academic experts,
16 each with different perspectives, discussed ways
17 to keep United States capital markets the
18 strongest and most innovative in the world; and

19 (B) conference delegates examined the im-
20 pact of the United States regulatory structure
21 and philosophy, the legal and corporate govern-
22 ance environment, and the auditing profession
23 and financial reporting on United States capital
24 markets competitiveness;

1 (5) the foundation of any competitive capital
2 market is investor confidence, and since 1930, the
3 United States has required some of the most exten-
4 sive financial disclosures, supported by one of the
5 most robust enforcement regimes in the world;

6 (6) a balanced regulatory system is essential to
7 protecting investors and the efficient functioning of
8 capital markets; and

9 (7) too much regulation stifles entrepreneur-
10 ship, competition, and innovation, and too little reg-
11 ulation creates excessive risk to industry, investors,
12 and the overall system.

13 (b) SENSE OF THE SENATE.—It is the sense of the
14 Senate that—

15 (1) Congress, the President, regulators, indus-
16 try leaders, and other stakeholders should take the
17 necessary steps to reclaim the preeminent position of
18 the United States in the global financial services
19 marketplace;

20 (2) the Federal and State financial regulatory
21 agencies should, to the maximum extent possible, co-
22 ordinate activities on significant policy matters, so
23 as not to impose regulations that may have adverse
24 unintended consequences on innovativeness with re-
25 spect to financial products, instruments, and serv-

1 ices, or that impose regulatory costs that are dis-
2 proportionate to their benefits, and, at the same
3 time, ensure that the regulatory framework over-
4 seeing the United States capital markets continues
5 to promote and protect the interests of investors in
6 those markets; and

7 (3) given the complexity of the financial serv-
8 ices marketplace today, Congress should exercise vig-
9 orous oversight over Federal regulatory and statu-
10 tory requirements affecting the financial services in-
11 dustry and consumers, with the goal of eliminating
12 excessive regulation and problematic implementation
13 of existing laws and regulations, while ensuring that
14 necessary investor protections are not compromised.

Passed the Senate April 25, 2007.

Attest:

Secretary.

110TH CONGRESS
1ST SESSION

S. 761

AN ACT

To invest in innovation and education to improve the competitiveness of the United States in the global economy.