COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Committee on Commerce, Science, and Transportation be authorized to hold a hearing during the session of the Senate on Thursday, April 26, 2007, at 10 a.m. in Room 253 of the Russell Senate Office Building. The purpose of this hearing is to discuss clean coal technology.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON FINANCE

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Committee on Finance be authorized to meet during the session of the Senate on Finance which will meet on Thursday, April 26, 2007, at 1 p.m., in 215 Dirksen Senate Office Building, to hear testimony on “Coal: A Clean Future”.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON INDIAN AFFAIRS

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Committee on Indian Affairs be authorized to meet on Thursday, April 26, 2007, at 10 a.m. in Room 485 of the Russell Senate Office Building to conduct a hearing on S. 482, Shoshone-Paiute Tribes of Duck Valley Water Rights Settlement Act.

The PRESIDING OFFICER. Without objection, it is so ordered.

SELECT COMMITTEE ON INTELLIGENCE

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Select Committee on Intelligence be authorized to meet during the session of the Senate on April 26, 2007, at 2:30 p.m. to hold a closed business meeting.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMITTEE ON AIRLAND

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Subcommittee on Airland be authorized to meet during the session of the Senate on Thursday, April 26, 2007, at 10 a.m. in Room 485 of the Russell Senate Office Building to conduct a hearing on S. 482, Shoshone-Paiute Tribes of Duck Valley Water Rights Settlement Act.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMERICA COMPETES ACT

On Wednesday, April 25, 2007, the Senate passed S. 761 as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE. This Act may be cited as the “America COMPETES Act” or the “America CreatingOpportunities to Meaningfully Promote Excellence in Science Engineering and Technology Act”.

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

(a) DIVISIONS.—This Act is organized into 5 divisions as follows:

(1) DIVISION A.—Commerce and Science.

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

Sec. 1. Title.

DIVISION A.—COMMERCE AND SCIENCE

Sec. 1001. 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. 1104. Release of scientific research results.


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. 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 Hollings manufacturing partnership program.

TITLE V—OCEAN AND ATMOSPHERIC

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. 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. 3101. Purpose.

Sec. 3102. Definitions.

Sec. 3103. 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 language education.
Sec. 3115. General provisions.
Sec. 3116. Authorization of appropriations.
Subtitle B—Advanced Placement and International Baccalaureate Programs
Sec. 3121. Definitions.
Sec. 3122. 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 program.
Sec. 3203. Math skills for secondary school students.

TITLE III—FOREIGN LANGUAGE PROGRAMS
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.

DIVISION A—COMMERCE AND SCIENCE
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 training programs.
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. Information and communications technology research.
Sec. 4012. Robert Noyce Teacher Program.
Sec. 4013. General provisions of appropriations for the mathematics and science partnership programs of the Department of Education and the National Science Foundation.
Sec. 4014. National Science Foundation teacher institutes for the 21st century.
Sec. 4015. Partnerships for access to laboratory science.

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.
Sec. 5004. Prohibition against funding anti-innovation risk-taking.
Sec. 5005. Feasibility study on free online college degree program.
Sec. 5006. Sense of the Senate regarding deemed exports.
Sec. 5007. Sense of the Senate regarding capital markets.

DIVISION II—COMMERCIAL AND SCIENCE

TITLE I—OFFICE OF SCIENCE AND TECHNOLOGY POLICY; GOVERNMENT-WIDE SCIENCE
Sec. 1001. SHORT TITLE.
This division may be cited as the “American Innovation and Competitiveness Act”.

TITLE I—OFFICE OF SCIENCE AND TECHNOLOGY POLICY

DIVISION A—GENERAL PROVISIONS
Sec. 1001. SHORT TITLE.
Sec. 1002. Sense of the Senate regarding the American Innovation and Competitiveness Act. 

DIVISION B—SCIENCE AND TECHNOLOGY PROGRAMS
Sec. 1003. Authorization of appropriations.
Sec. 1004. Increased support for science, technology, engineering, and mathematics fields.
Sec. 1005. Sense of the Senate regarding the Office of Science and Technology Policy.
Sec. 1006. Sense of the Senate regarding the National Science Foundation.
Sec. 1007. Sense of the Senate regarding the National Science Foundation; and the national Baccalaureate program, international Baccalaureate programs, and mathematics, science, technology, engineering, and mathematics fields.

DIVISION C—SPECIAL NEEDS
Sec. 1008. Sense of the Senate regarding individuals identified in section 33 or 34 of the Science and Equal Opportunities Act (42 U.S.C. 1885a or 1885b).

DIVISION D—NATIONAL SCIENCE FOUNDATION
Sec. 5007. Sense of the Senate regarding capital market.

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.
SEC. 1103. NATIONAL INNOVATION MEDAL.


(1) by striking the section heading and inserting “SEC. 16. NATIONAL TECHNOLOGY AND INNOVATION MEDAL.”; and

(2) by redesigning (a), by striking “Technology and Innovation Medal”.

SEC. 1104. RELEASE OF SCIENTIFIC RESEARCH PRINCIPLES.

(a) PRINCIPLES.—Not later than 90 days after the date of enactment of this Act, the Director of the Office of Science and Technology Policy shall—

(1) conduct a public hearing on the principles that shall encourage the open exchange of data and results to other agencies, policymakers, and the public of research conducted by a scientist employed by a Federal civilian agency and to prevent the intentional or unintentional suppression or distortion of such research findings.

(b) IMPLEMENTATION.—Not later than 180 days after the date of enactment of this Act, the Director of the Office of Science and Technology Policy shall ensure that all civilian Federal agencies that conduct scientific research develop specific policies and procedures for the open exchange of data and results of research conducted by a scientist employed by such an agency and shall be consistent with existing Federal laws, including chapter 18 of title 35, United States Code (commonly known as the “Bayh-Dole Act”).

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

(d) SERVICE SCIENCE DEFINED.—In this section, the term “service science” means curricula, training, and research programs that are designed to teach individuals to apply scientific, engineering, and management disciplines to the organizations creating value for customers and shareholders that can be achieved through such disciplines working in isolation.

TITLE II—INNOVATION PROMOTION

SEC. 1201. PRESIDENT’S COUNCIL ON INNOVATION AND COMPETITIVENESS.

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

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

(1) monitoring implementation of public laws and initiatives for promoting innovation, including policies related to research funding, taxation, immigration, trade, and education that are proposed in this Act or in any other Act;

(2) advising the President with respect to global trends in competitiveness and innovation and allocation of Federal resources in education, job training, and technology research and development considering such global trends in competitiveness and innovation;

(3) in consultation with the Director of the Office of Management and Budget, developing a process for using metrics to assess the implementation of policies and rules that affect innovation capabilities in the United States;

(4) identifying opportunities and making recommendations to the President to the heads of executive agencies to improve innovation, monitoring, and reporting on the implementation of such recommendations;

(5) developing metrics for measuring the progress of the Federal Government with respect to improving conditions for innovation, including through talent development, investment, and infrastructure improvements; and

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

(c) MEMBERSHIP AND COORDINATION.—

(1) MEMBERSHIP.—The Council shall be composed of the Secretary of each of the following:

(A) The Department of Commerce.

(B) The Department of Defense.

(C) The Department of Education.

(D) The Department of Energy.

(E) The Department of Health and Human Services.

(F) The Department of Homeland Security.

(G) The Department of Labor.

(H) The Department of the Treasury.

(I) The National Aeronautics and Space Administration.

(J) The Securites and Exchange Commission.

(K) The National Science Foundation.

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

(M) The Office of Management and Budget.

(N) The Office of Science and Technology Policy.

(O) The Environmental Protection Agency.

(P) The Small Business Administration.

(q) Other departments or agencies designated by the President.

(2) CHAIRPERSON.—The Secretary of Commerce shall serve as Chairperson of the Council.

(3) COORDINATION.—The Chairperson of the Council shall ensure appropriate coordination between the Council and the National Economic Council, the National Security Council, and the National Science and Technology Council.

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

(d) DEVELOPMENT OF INNOVATION AGENDA.—

(1) IN GENERAL.—The Council shall develop a comprehensive agenda for strengthening the innovation and competitiveness capabilities of the Federal Government, State governments, academia, and the private sector in the United States.

(2) CONTENTS.—The comprehensive agenda required by paragraph (1) shall include the following:

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

(B) Recommendations for addressing weaknesses and maintaining the United States as the global leader in research and development and technological innovation, including strategies for increasing the participation of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in science, technology, engineering, and mathematics fields.

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

(3) ADVISORS.—The Council shall include appropriate representatives from the following:
such Executive agency. An implementation plan may incorporate existing initiatives of the Executive agencies that promote research in innovation as described in subsection (a).

(ii) REQUIRED METRICS.—

(1) IN GENERAL.—The head of each Executive agency submitting an implementation plan pursuant to subparagraph (A) shall include metrics and funding decisions that will be made and metrics for assessing the success of the grants awarded.

(2) METRICS FOR BASIC RESEARCH.—The metrics developed under clause (1) to assess basic research programs shall be managed and maintained by the Science and Technology Policy and the Director of the Office of Science and Technology Policy.

(iii) REQUIREMENT TO CONSULT.—The Council shall update the comprehensive agenda required by paragraph (1) in consultation with the advisors.

(4) INITIAL SUBMISSION AND UPDATES.—

(A) BALANCED—Not later than 1 year after the date of enactment of this Act, the Council shall submit to Congress and the President the comprehensive agenda required by paragraph (1).

(B) UPDATES.—At least once every 2 years, the Council shall submit the comprehensive agenda required by paragraph (1) and submit each such update to Congress and the President.

(e) TECHNICAL AMENDMENT.—Section 101(b) of the Federal Performance Computing Act of 1991 (5 U.S.C. 5511(b)) is amended by striking “an” in the first sentence and inserting “a”.

(f) OPTIONAL ASSIGNMENT.—Notwithstanding subsection (a) and paragraphs (1) and (2) of subsection (c), the President may designate a new council to carry out the requirements of this section.

SEC. 1202. INNOVATION ACCELERATION RESEARCH.

(a) PROGRAM ESTABLISHED.—The President, through the head of each Federal research agency, shall establish a program, to be known as the Innovation Acceleration Research Program, to fund and promote innovation in the United States through research projects that can yield results with far-ranging or wide-ranging implications but are not currently or otherwise funded. A program of this nature will be made available to the public to ensure that public funding for research will be directed to well in the traditional peer review process. Priority in the awarding of grants under this program shall be given to research projects that—

(1) meet fundamental technology or scientific challenges;

(2) involve disciplinary work; and

(3) involve a high degree of novelty.

(b) DEPARTMENTS AND AGENCIES.—

(1) FUNDING GOALS.—The President shall ensure it is the goal of each Executive agency (as defined in section 105 of title 5, United States Code) that finances research in science, mathematics, engineering, and technology to allocate approximately 8 percent of the agency’s total annual research and development budget to funding research, including grants, under the Innovation Acceleration Research Program.

(2) ADMINISTRATION.—

(A) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the head of each Federal research agency participating in the Innovation Acceleration Research Program shall submit to the Director of the Office of Science and Technology Policy a plan for implementing the research program within
the Department of Transportation, the Department of Defense, the Department of Commerce, and the Department of Homeland Security, including the activities of the Joint Center for Transportation Development and the offices established under the Vision 100—Century of Aviation Reauthorization Act (Public Law 108–178; 117 Stat. 2460).

(b) The Basic Research Executive Council shall be provided with adequate administrative staff support under the National Aeronautics and Space Administration Authorization Act of 2005 (Public Law 109–155).

(2) Collaborative coordination.—The Director of the Institute may utilize the Next Generation Air Transportation Senior Policy Committee established under section 710 of the Vision 100—Century of Aviation Reauthorization Act (Public Law 108–178; 49 U.S.C. 40101 note) to coordinate its programs with other Departments and agencies.

(3) Partnerships.—In developing and carrying out its plans, the Institute shall consult with the public and ensure the participation of the private sector, including representatives of commercial aviation, general aviation, aviation labor groups, aviation research and development entities, aircraft and air traffic control suppliers, and the space industry.

SEC. 1303. BASIC RESEARCH ENHANCEMENT.

(a) In General.—The Administrator of the National Aeronautics and Space Administration, the Director of the National Science Foundation, the Secretary of Energy, the Secretary of Defense, and the Secretary of Commerce, shall ensure that the following duties:

(1) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (2).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(C) to coordinate its programs with other governmental organizations, the Administrator of the National Aeronautics and Space Administration shall establish within the Administration a Basic Research Executive Council to oversee the distribution and management of programs and resources engaged in activities related to basic research.

(2) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (1).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(3) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (2).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(4) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (3).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(5) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (4).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(6) The Basic Research Executive Council shall conduct the following:

(A) review the basic research priorities established under paragraph (5).

(B) coordinate efforts of the basic research in the natural sciences, social sciences, and engineering.

(b) Membership.—The membership of the Basic Research Executive Council shall consist of the Department of Transportation, the National Aeronautics and Space Administration, the National Science Foundation, the National Institutes of Health, and appropriate federal external organizations, including representatives of private sector, including—

(1) academic institutions;

(2) federal laboratory systems;

(3) nongovernmental organizations;

(4) private industry;

(5) labor unions;

(6) the General Accountability Office;

(7) the National Academy of Sciences;

(8) the National Academy of Engineering; and

(9) the National Academy of Medicine.

(2) Authorization of Appropriations. There are authorized to be appropriated $115,000,000, of which $376,500,000 shall be used for the Hollings Manufacturing Extension Partnership Program.

(3) To make recommendations to the Administrator of the National Aeronautics and Space Administration regarding adjustments in the basic research activities of the Administration to ensure consistency with research priorities established under this section.

(4) To provide an annual report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives outlining the activities of the Council during the preceding year and the status of basic research activity within the Administration. The last such report to serve as a baseline document, shall be provided within 90 days after the establishment and initial operations of the Council.

SEC. 1304. AGING WORKFORCE ISSUES PROGRAM.

It is the sense of Congress that the Administrator of the National Aeronautics and Space Administration should implement a program to address aging workforce issues in aerospace that—

(1) documents technical and management experiences before senior people leave the Administration;

(2) briefs organizations;

(3) provides opportunities for archiving lessons in a database; and

(4) provides opportunities for near-term retirees to transition out early from their primary assignment in order to document their career lessons learned and brief new employees prior to their separation from the Administration;

(5) provides incentives for retirees to return and teach new employees about their career lessons and experiences; and

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

SEC. 1305. CONFORMING AMENDMENTS.

Section 101(d) of the National Aeronautics and Space Administration Authorization Act of 2006 (42 U.S.C. 16611(d)) is amended—

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

(2) by striking “Act,” in paragraph (2)(C) and inserting “Act; and”; and

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

“(D) To establish a program linked to the goals and objectives of the measurement laboratory, to be known as the ‘Standards and

SEC. 1306. FISCAL YEAR 2008 BASIC SCIENCE AND RESEARCH FUNDING.

Notwithstanding any other provision of law, the National Aeronautics and Space Administration shall increase funding for basic science and research, including for the Explorer Program, for fiscal year 2008 by transfer-
Technology Acceleration Research Program", to support and promote innovation in the United States through high-risk, high-reward research; and

(2) ensure that participating funds available to the measurement laboratories, an amount equal to not less than 8 percent of the funds available to the Institute each fiscal year for such Program.

(b) EXTERNAL FUNDING.—The Director shall ensure that at least 80 percent of the funds available for such Program shall be awarded to, or merit-reviewed by, small or medium-sized businesses and academic institutions. Any grant shall be for a period not to exceed 3 years.

(c) PERFORMANCE OF FUNDING.—(1) The Director shall report to Congress each year on the performance of the program, including a description of the metrics upon which grant decisions were made in the previous fiscal year, any proposed changes to those metrics, and an evaluation of the success of ongoing and completed grants, and an evaluation of the success of completed grants.

(2) Each annual report shall include best practices for management of programs to stimulate high-risk, high-reward research.

(3) The metrics, as determined by the Director, shall be for a period not to exceed 3 years.

SEC. 1405. EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE TECHNOLOGY.

(a) IN GENERAL.—The Director of the National Institute of Standards and Technology shall re-establish the Experimental Program to Stimulate Competitive Technology. The purpose of the program shall be to strengthen the national technological competitiveness of those States that have historically received less Federal research and development funds than a majority of the States have received.

(b) ARRANGEMENTS.—(1) In carrying out the program, the Director shall cooperate with the regional, local science and technology-based economic development organization and with representatives of small businesses and other appropriate technology-based economic development organizations.

(2) technology research and development;

(3) technology transfer from university research;

(4) technology deployment and diffusion; and

(c) GRANTS AND COOPERATIVE AGREEMENTS.—In carrying out the program, the Director may enter into cooperative agreements with—

(1) technology research and development;

(2) technology transfer from university research;

(3) technology deployment and diffusion; and

(4) the strengthening of technological and innovation capabilities through consortia comprised of—

(A) technology-based small business firms;

(B) industries and emerging companies;

(C) institutions of higher education including community colleges; and

(D) State and local development agencies and entities.

(d) REQUIREMENTS FOR MAKING AWARDS.—

(1) IN GENERAL.—In making awards under this section, the Director shall ensure that the awards are awarded on a competitive basis that includes a review of the merits of the applications that are the subject of the award, giving special emphasis to those projects which will increase the participation of women, Native Americans (including Native Hawaiians and Alaska Natives), and underrepresented groups in science and technology.

(2) MATCHING REQUIREMENT.—The non-Federal share of the activities (other than planning activities) carried out under an award under this subsection shall be not less than 50 percent of the cost of those activities.

(e) CRITERIA FOR STATES.—The Director shall establish criteria for achievement by each State that participates in the program. Upon the achievement of all such criteria, a State shall cease to be eligible to participate in the program.

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

(g) REPORT.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Director shall prepare and submit to the Committee on Commerce, Science, and Transportation of the House of Representatives a report that meets the requirements of this subsection.

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

(A) a description of the structure and procedures of the program;

(B) a description of the metrics used in the program; and

(C) a description of the merit-based review process to be used in the program;
Act of 1966 (15 U.S.C. 280a), the standard time of the first zone shall be Coordinated Universal Time retarded by 4 hours; that of the second zone retarded by 5 hours; that of the third zone retarded by 6 hours; that of the fourth zone retarded by 7 hours; that of the fifth zone retarded by 8 hours; that of the sixth zone retarded by 9 hours; that of the seventh zone retarded by 10 hours; that of the eighth zone retarded by 11 hours; and that of the ninth zone shall be Coordinated Universal Time advanced by 10 hours:” and

SEC. 1407. CLARIFICATION OF ELIGIBLE CONTRIBUTIONS IN CONNECTION WITH REGIONAL CENTERS RESPONSIBLE FOR IMPLEMENTING THE OBJECTIVE OF THE HOLLINGS MANUFACTURING PARTNERSHIP PROGRAM.

(a) In general.—Any nonprofit institution, or group thereof, or consortia of nonprofit institutions, including entities existing on August 23, 1988, may submit to the Secretary an application for financial support related to the establishment, in accordance with the procedures established by the Secretary and published in the Federal Register under paragraph (2).

(b) Full participation in interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific measurements, and the promotion of science, technology, engineering, and mathematics education, consistent with the agency mission, including authorized activities.

SEC. 1502. NOAA OCEAN AND ATMOSPHERIC SCIENCE EDUCATION PROGRAMS.

(a) In General.—The Administrator of the National Oceanic and Atmospheric Administration shall conduct, develop, support, promote, and coordinate formal and informal educational activities at all levels to enhance public awareness and understanding of ocean, coastal, Great Lakes, and atmospheric science and stewardship by the general public and other coastal stakeholders, including underrepresented groups in ocean, atmospheric science and policy careers.

(b) NOAA SCIENCE EDUCATION PLAN.—The Administrator, appropriate National Oceanic and Atmospheric Administration programs, ocean atmospheric science and education experts, and interested members of the public shall develop a science education plan setting forth educational goals and strategies for the Administration, as well as programmatic actions to carry out such goals and priorities over the next 20 years, and evaluate and update such plan every 5 years.

(c) CONSTRUCTION.—Nothing in this section may be construed to affect the application of section 103 of the Rehabilitation Act of 1973 (29 U.S.C. 794 and 794d).

SEC. 1503. NOAA'S CONTRIBUTION TO INNOVATION.

(a) PARTICIPATION IN INTERAGENCY ACTIVITIES.—The National Oceanic and Atmospheric Administration shall fully participate in any interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific measurements, and the promotion of science, technology, engineering, and mathematics education, consistent with the agency mission, including authorized activities.

(b) HISTORIC FOUNDATION.—In order to carry out the participation described in subsection (a), the Administrator of the National Oceanic and Atmospheric Administration shall build on the historic role of the National Oceanic and Atmospheric Administration in the advancement of ocean and atmospheric science and engineering disciplines and in providing opportunities and incentives for the pursuit of academic study, research, technology, engineering, and mathematics.

SEC. 1504. NOAA ACCOUNTABILITY AND TRANSPARENCY.

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

(1) REQUIREMENT FOR REVIEW.—The Inspector General of the Department of Commerce shall conduct, evaluate, and review the activities carried out with grants or other financial assistance made available by the Administrator of the National Oceanic and Atmospheric Administration. Such reviews shall include cost-benefit analysis of such activities and reviews to determine if the goals of such activities are being accomplished.

(2) AVAILABILITY TO THE PUBLIC.—The Administrator shall make each review conducted pursuant to paragraph (1) available to the public through the website of the Administration not later than 60 days after the date such review is completed.

(b) PROHIBITION ON USE OF NOAA FUNDS FOR MEETINGS.—No funds made available by the Administrator through a grant or contract may be used by the person who received such grant or contract, including any subcontractor to such person, for a banquet or conference, other than a conference related to training or a routine meeting with subcontractors or employees of the Administrator to discuss an ongoing project or training.

(c) PROHIBITION ON CONFLICTS OF INTEREST.—In general, the person who received funds from the Administrator through a grant or contract shall submit to the Administrator a certification stating that none of such funds will be made available through a subcontract or any other manner to any person who has a financial interest or other conflict of interest with the person who received such funds from the Administrator.

DIVISION B—DEPARTMENT OF ENERGY

SEC. 2001. SHORT TITLE.

This division may be cited as the “Protecting America’s Competitive Edge Through Energy Act” or the “PACE–Energy Act”.

SEC. 2002. DEFINITIONS.

In this division:

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

(2) INSTITUTION OF HIGHER EDUCATION.—The term “institution of higher education” has the meaning given in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(3) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given in section 2 of the Energy Policy and Conservation Act of 2005 (42 U.S.C. 17051).

(4) SECRETARY.—The term “Secretary” means the Secretary of Energy, acting through the Under Secretary for Science appointed under section 202(b) of the Department of Energy Organization Act (42 U.S.C. 7123(b)).

SEC. 2003. MATHEMATICS, SCIENCE, AND ENGINEERING EDUCATION AT THE DEPARTMENT OF ENERGY.

(a) SCIENCE EDUCATION PROGRAMS.—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended—

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

(2) by inserting after subsection (a) the following:

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

(1) DIRECTOR OF MATHEMATICS, SCIENCE AND ENGINEERING EDUCATION.—Notwithstanding any other provision of law, the Secretary, acting through the Under Secretary for Science (referred to as the ‘Under Secretary’), shall appoint a Director of Mathematics, Science, and Engineering Education (referred to in this subsection as the ‘Director’) with the principal responsibility for administering mathematics, science, and engineering education programs across all functions of the Department.

(2) QUALIFICATIONS.—The Director shall be an individual, who by reason of professional background and experience, is specially qualified to advise the Under Secretary for Science relating to mathe-
(B) represent the Department as the principal interagency liaison for all mathematics, science, and engineering education programs, unless otherwise represented by the Under Secretary;
(C) prepare the annual budget and advise the Under Secretary on all budgetary issues for mathematics, science, and engineering education programs of the Department;
(D) increase, to the maximum extent practicable, the participation and advancement of women and underrepresented minorities in science, technology, engineering, and mathematics education; and
(E) perform other such matters related to mathematics, science, and engineering education as are required by the Secretary or the Under Secretary.
(4) STAFF AND OTHER RESOURCES.—The Secretary shall assign to the Director such personnel and other resources as the Secretary considers necessary to permit the Director to carry out the duties of the Director.
(5) ASSESSMENT.—
(A) IN GENERAL.—The Secretary shall offer to enter into a contract with the National Academy of Sciences under which the National Academy, not later than 5 years after, and not later than 10 years after, the date of enactment of this paragraph, shall assess the impact of the mathematics, science, and engineering education programs of the Department.
(B) CONSIDERATIONS.—An assessment under the paragraph shall be conducted taking into consideration, where applicable, the effect of mathematics, science, and engineering education programs of the Department on students' academic achievement in math and science.
(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this subsection.
(7) by striking subsection (d) as redesignated by paragraph (1) and inserting the following:
(d) MATHEMATICS, SCIENCE, AND ENGINEERING EDUCATION FUND.—The Secretary shall establish a Mathematics, Science, and Engineering Education Fund, using not less than 0.3 percent of the amount made available to the Department for research, development, demonstration, and commercial application for each fiscal year, to carry out sections 3165, 3166, and 3167.

(b) CONSULTATION.—The Secretary shall—
(1) establish a subpart of the Secretary of Education regarding activities authorized under subpart B of the Department of Energy Science Education Enhancement Act (as added by subsection (d)) to improve mathematics and science education; and
(2) otherwise make available to the Secretary of Education reports associated with programs under that section.
(c) DEFINITION.—Section 3168 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 15801) is amended by adding at the end the following:
(9) NATIONAL LABORATORY.—The term ‘National Laboratory’ has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).
(d) MATHEMATICS, SCIENCE, AND ENGINEERING EDUCATION PROGRAMS.—The Department of Energy Science Education Enhancement Act (42 U.S.C. 15801 et seq.) is amended—
(1) by inserting after section 3162 the following:

*Subpart B—Mathematics, Science, and Engineering Education Programs*

**SEC. 3170. DEFINITIONS.** In this subpart:
(1) DIRECTOR.—The term ‘Director’ means the Director of Mathematics, Science, and Engineering Education.
(2) NATIONAL LABORATORY.—The term ‘National Laboratory’ has the meaning given the term in subsection a of the Energy Policy Act of 2005 (42 U.S.C. 15801).

**CHAPTER 1—ASSISTANCE FOR SPECIALTY SCHOOLS FOR MATHEMATICS AND SCIENCE**

**SEC. 3171. SPECIALTY SCHOOLS FOR MATHEMATICS AND SCIENCE.**

(a) PURPOSE.—The purpose of this section is to provide resources to establish or expand public, statewide specialty secondary schools that provide comprehensive mathematics and science (including engineering and technology) education to improve the academic achievement of students in mathematics and science.

(b) DEFINITION OF SPECIALTY SCHOOL FOR MATHEMATICS AND SCIENCE.—In this chapter, the term ‘specialty school for mathematics and science’ means a public secondary school (including a school that provides residential services to students) that—
(1) serves students residing in the State in which the school is located; and
(2) offers to those students a high-quality, comprehensive core academic program (including engineering and technology) curriculum designed to improve the academic achievement of students in mathematics and science.

(c) GRANTS AUTHORIZED.—
(1) IN GENERAL.—From the amounts authorized under section 3170 (the Secretary, acting through the Director, shall award grants, on a competitive basis, to States in order to provide assistance to the States for the costs of establishing or expanding public, statewide specialty schools for mathematics and science.

(2) RESOURCES.—The Director shall ensure that the programs supported under this section—
(A) increase, to the maximum extent practicable, the participation and advancement of women and underrepresented minorities in science, technology, engineering, and mathematics education programs of the Department; and
(B) offer to students a comprehensive core academic program (including engineering and technology) curriculum designed to improve the academic achievement of students in mathematics and science.

(d) FEDERAL AND NON-FEDERAL SHARES.—(1) FEDERAL SHARE.—The Federal share of the costs described in subsection (c)(1) shall be—
(A) not less than 50 percent; and
(B) provided from Federal funds, in cash or in kind, fairly evaluated, including services.

(2) RESOURCES.—The Director shall award grants under this section, the Director shall—
(A) ensure a wide, equitable distribution among States that propose to serve students from urban and rural areas;
(B) provide equal consideration to States without National Laboratories.

(3) USES OF FUNDS.—
(1) IN GENERAL.—A State that receives a grant under this section shall use the funds made available through the grant to—
(A) employ proven strategies and methods for improving student academic achievement in mathematics, science, technology, and engineering;
(B) integrate into the curriculum of the schools comprehensive mathematics, science, technology, and engineering education, including instruction and assessments in mathematics, science, technology, and engineering, including institutions of higher education;
(C) provide equal distribution, in awarding grants under this section, the Director shall—
(a) ensure a wide, equitable distribution among States that propose to serve students from urban and rural areas;
(b) provide equal consideration to States without National Laboratories.

(2) Special rule.—Grant funds under this section may be used for activities described in paragraph (1) only if the activities are directly related to improving student academic achievement in mathematics, science, and to the extent applicable, technology and engineering.

(3) EVALUATION AND REPORT.—
(1) STATE EVALUATION AND REPORT.—
(A) EVALUATION.—Each State that receives a grant under this section shall submit an application to the Director at such time, in such manner, and accompanied by such information as the Director may require that describes—
(i) the process by which and selection criteria with which the State will select and provide funds to eligible specialty schools for mathematics and science in accordance with this section;
(ii) how the State will ensure that funds made available under this section are used to establish or expand a specialty school for mathematics and science;
(B) how the State will ensure that funds made available under this section are used to establish or expand a specialty school for mathematics and science;
(C) what the activities described in paragraph (1) of this section may be used for activities described in paragraph (1) only if the activities are directly related to improving student academic achievement in mathematics, science, technology, and engineering;

(2) provide equal distribution among States; and
(3) provide equal distribution among States that propose to serve students from urban and rural areas.

(4) IN GENERAL.—A State that receives a grant under this section shall use the funds made available through the grant to—
(A) employ proven strategies and methods for improving student academic achievement in mathematics, science, technology, and engineering;
(B) provide equal consideration to States without National Laboratories.

(5) USES OF FUNDS.—
(1) IN GENERAL.—A State that receives a grant under this section shall use the funds made available through the grant to—
(A) employ proven strategies and methods for improving student academic achievement in mathematics, science, technology, and engineering;
(B) provide equal considerations among States that propose to serve students from urban and rural areas;
(C) provide equal distribution among States without National Laboratories.

(2) Special rule.—Grant funds under this section may be used for activities described in paragraph (1) only if the activities are directly related to improving student academic achievement in mathematics, science, and to the extent applicable, technology and engineering.

(3) EVALUATION AND REPORT.—
(1) STATE EVALUATION AND REPORT.—
(A) EVALUATION.—Each State that receives a grant under this section shall submit an application to the Director at such time, in such manner, and accompanied by such information as the Director may require that describes—
(i) the process by which and selection criteria with which the State will select and provide funds to eligible specialty schools for mathematics and science in accordance with this section;
(ii) how the State will ensure that funds made available under this section are used to establish or expand a specialty school for mathematics and science;

(2) how the State will ensure that funds made available under this section are used to establish or expand a specialty school for mathematics and science;
the extent applicable, technology and engineering assessments.

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

"(2) REPORT TO CONGRESS.—Not later than 2 years after the date of enactment of the FACE-ENERGY Act, the Director shall submit a report to the appropriate committees of Congress detailing the impact of the activities assisted with funds made available under this section.

"(a) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

(1) $30,000,000 for fiscal year 2008;

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

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

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

"CHAPTER 2—EXPERIENTIAL-BASED LEARNING OPPORTUNITIES

"SEC. 3175. EXPERIENTIAL-BASED LEARNING OPPORTUNITIES.

"(a) INTERNSHIPS AUTHORIZED.—

(1) IN GENERAL.—From the amounts authorized under subsection (f), the Secretary, acting through the Director, shall establish a summer internship program for middle school and secondary school students that shall—

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

(B) promote experiential, hands-on learning in mathematics, science, technology, or engineering; and

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

(2) RESIDENTIAL SERVICES.—The Director may provide residential services to students participating in the Internship authorized under this chapter.

"(b) ELIGIBILITY CRITERIA.—

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

(2) PARTICIPATION.—The Director shall ensure the participation of students from a wide distribution of States, including States without National Laboratories.

(3) STUDENT ACHIEVEMENT.—The Director may consider the academic achievement of middle school and high school students when determining eligibility under this section, in accordance with subsection (1) and (2).

(4) PRIORITY.—

(1) IN GENERAL.—The Director shall give priority to an internship under this section to a student who meets the eligibility criteria described in subsection (b) and who attends a school—

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

(ii) that is designated with a school locale code of 6, 7, or 8, as determined by the Secretary of Education; and

(B) for which there is—

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

(ii) a high teacher turnover rate; or

(iii) a high percentage of teachers with emergency, provisional, or temporary certification or licenses.

(2) IN GENERAL.—The Director shall consult with the Secretary of Education in order to determine whether a student meets the priority requirements of this subsection.

"(4) EXPERIENTIAL-BASED PROGRAMS FOR MINORITY STUDENTS.—

(1) IN GENERAL.—The Secretary, acting through the Director, in cooperation with Historically Black colleges and universities, historically black colleges and universities, tribally controlled colleges and universities, Alaska Native- and Native Hawaiian-serving institutions, and other minority-serving institutions and nonprofit entities with substantial experience relating to outreach and experiential programming, shall establish outreach and experiential-based learning programs that will encourage underrepresented minority students in kindergarten through grade 12 to pursue careers in math, science, and engineering.

(2) COMMUNITY INVOLVEMENT.—The Secretary shall ensure that the programs established under paragraph (1) involve, to the maximum extent practicable—

(A) participation by parents and educators; and

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

(3) DISTRIBUTION.—The Secretary shall ensure that the programs established under paragraph (1) are located in diverse geographic regions of the United States, to the maximum extent practicable.

"(c) EVALUATION AND ACCOUNTABILITY PLAN.—The Director shall develop an evaluation and accountability plan for the activities funded under this chapter that objectively measures the impact of the activities, and—

(1) disseminate information obtained from those measurements.

"(d) IMPLEMENTATION PROHIBITED.—Nothing in this section displaces or otherwise affects any similar program being carried out as of the date of enactment of this chapter at any National Laboratory under any other provision of law.

"CHAPTER 3—NATIONAL LABORATORIES CENTERS OF EXCELLENCE IN MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING EDUCATION

"SEC. 3181. NATIONAL LABORATORIES CENTERS OF EXCELLENCE IN MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING EDUCATION.

(a) DEFINITIONS.—In this section—

(A) the mathematics, science, or engineering department at an institution of higher education, acting in coordination with a department at an institution of higher education that provides training for teachers and principals; or

(B) a nonprofit entity with expertise in providing professional development for mathematics, science, or technology teachers.

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

(A) is conducted for a period of not less than 1 week;

(B) includes, as a component, a program that provides direct interaction between students and faculty, including personnel of 1 or more National Laboratories who have scientific expertise; and

(C) provides for follow-up training during the academic year, that is conducted in the classroom.

(b) SUMMER INSTITUTE PROGRAMS AUTHORIZED.—

(1) PROGRAMS AT THE NATIONAL LABORATORIES.—The Secretary, acting through the Director, shall establish or expand programs of summer institutes at each of the National Laboratories to provide training to strengthen the mathematics, science, technology, and engineering teaching skills of teachers employed at public schools for kindergarten through grade 12, in accordance with the activities authorized under subsections (c) and (d).

(2) PROGRAMS WITH ELIGIBLE PARTNERS.—

(A) IN GENERAL.—The Secretary, acting through the Director, shall identify and provide assistance to eligible partners to establish or expand programs of summer institutes at each of the National Laboratories to provide additional training to strengthen the mathematics, science, technology, and engineering teaching skills of teachers employed at public schools for kindergarten through grade 12, in accordance with the activities authorized under subsections (c) and (d).

(3) SUMMERS.—The Secretary shall ensure that any summer institute program established under this chapter—

(A) is conducted for a period of not less than 1 week;

(B) includes, as a component, a program that provides direct interaction between students and faculty, including personnel of 1 or more National Laboratories who have scientific expertise; and

(C) provides for follow-up training during the academic year, that is conducted in the classroom.

(4) EVALUATION.—The Secretary shall encourage the use of peer-reviewed published literature to assess the impact of the programs established under this chapter, that objectively measures the impact of the activities, and to—

(A) disseminate information obtained from those measurements.
CHAPTER 5—NUCLEAR SCIENCE EDUCATION

SEC. 3191. NUCLEAR SCIENCE TALENT EXPANSION PROGRAM FOR INSTITUTIONS OF HIGHER EDUCATION.

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

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

(2) to increase the number of graduates in nuclear science, an area of strategic importance to the economic competitiveness and energy security of the United States.

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

(1) nuclear science;

(2) nuclear engineering;

(3) nuclear chemistry;

(4) radio chemistry; and

(5) health physics.

(c) ESTABLISHMENT.—The Secretary, acting through the Director, shall establish in accordance with this section a program to expand and enhance institution of higher education nuclear science educational capabilities.

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

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

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

(3) CRITERIA.—Criteria for a grant award under this subsection shall be based on—

(A) the potential to attract new students to the program;

(B) academic rigor; and

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

(4) DURATION AND AMOUNT.—

(A) DURATION.—A grant under this subsection shall be for 5 years in duration.

(B) AMOUNT.—An institution of higher education that receives a grant under this subsection shall be eligible for up to $1,000,000 for each year of the grant period.

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

(1) IN GENERAL.—The Secretary, acting through the Director, shall award up to 10 competitive grants for each fiscal year to institutions of higher education with existing academic degree programs that produce graduates in nuclear science.

(2) CRITERIA.—Criteria for a grant awarded under this subsection shall be based on the potential for increasing the number and academic quality of graduates in nuclear science who enter careers in nuclear-related fields.

(3) DURATION AND AMOUNT.—A grant under this subsection shall be for 5 years in duration.

(f) AUTHORIZATION OF APPROPRIATIONS.—

(1) NUCLEAR SCIENCE PROGRAM EXPANSION GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION. There are authorized to be appropriated to carry out this subsection—

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

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

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

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

(2) NUCLEAR SCIENCE COMPETITIVENESS GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION. There are authorized to be appropriated to carry out this subsection—

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

(B) $15,500,000 for fiscal year 2009;

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

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

CHAPTER 6—ADMINISTRATION

SEC. 3195. MENTORING PROGRAM.

(a) IN GENERAL.—As part of the programs established under chapters 3165 and 3166, the Director shall establish a program to recruit and provide mentors for women and underrepresented minorities who are in programs of study at specialty schools for mathematics, science, and engineering.

(b) PROGRAM EVALUATION.—The Secretary shall annually—

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

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

CHAPTER 7—NATIONAL ENERGY EDUCATION DEVELOPMENT

SEC. 3196. NATIONAL ENERGY EDUCATION DEVELOPMENT.

(a) PURPOSE.—The purpose of this section is to enable all students to reach or exceed national academic achievement standards and to enhance the knowledge of the students of the science of energy, the sources of
energy, the uses of energy in society, and the environmental consequences and benefits of all energy sources and uses by—

(1) improving instruction in science related to energy and to energy technologies in kindergarten through grade 9 through the implementation of energy education programs and with the support of comprehensive science education initiatives (within the meaning of section 1111 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311));

(ii) classroom management;

(iii) professional development;

(iv) parent involvement; and

(v) school management; and

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

(2) Grantees under this section may be used for activities described in paragraph (1) only if the activities are directly related to improving student academic achievement related to—

(A) the science of energy;

(B) the sources of energy; and

(C) the uses of energy in society; and

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

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

(1) $1,000,000 for each of fiscal years 2008 and 2009; and

(2) $2,000,000 for each of fiscal years 2010 and 2011.

SEC. 2004. DEPARTMENT OF ENERGY EARLY-CA REER RESEARCH GRANTS.

(a) PURPOSE.—It is the purpose of this section to authorize research grants in the Department for early-career scientists and engineers for purposes of pursuing independent research.

(b) DEFINITION OF ELIGIBLE EARLY-CAREER RESEARCHER.—In this section, the term "eligible early-career researcher" means an individual who—

(1) completed a doctorate or other terminal degree not more than 10 years before the date of application for a grant under this section, as excepted as provided in subsection (c)(3); and

(2) has demonstrated promise in the field of science, technology, engineering, mathematics, computer science, or computational science.

(c) GRANT PROGRAM AUTHORIZED.—

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

(2) APPLICATION.—An eligible early-career researcher who desires to receive a grant under this section shall submit to the Secretary an application at such time, in such manner, and by such information as the Secretary may require.

(3) WAIVER.—The Secretary may find eligible a candidate who has completed a doctorate more than 10 years prior to the date of application if the candidate was unable to conduct research for a period of time because of extenuating circumstances, including military service obligations.

(4) DURATION AND AMOUNT.—

(A) DURATION.—A grant under this section shall be 5 years in duration.

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

(5) USE OF FUNDS.—

(A) IN GENERAL.—A grantee shall—

(i) use the grant funds to—

(A) support the work of such researchers in the Department, particularly at the National Laboratories, or other federally-funded research and development centers.

(B) serve as the selection official for proposals relating to energy technologies that are directly related to improving student academic achievement related to energy technologies.

(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

(1) $15,000,000 for fiscal year 2008;

(2) $19,500,000 for fiscal year 2009;

(3) $26,000,000 for fiscal year 2010; and

(4) $32,500,000 for fiscal year 2011.

SEC. 2005. ADVANCED RESEARCH PROJECTS AUTHORITY-ENERGY.

(a) DEFINITIONS.—In this section—

(1) ADVISORY BOARD.—The term "Advisory Board" means the Advisory Board established under subsection (d).

(2) AUTHORITY.—The term "Authority" means the Advanced Research Projects Authority—Energy established under subsection (b).

(3) DIRECTOR.—The term "Director" means the Director of the Authority appointed under subsection (c)(1).

(b) ENERGY TECHNOLOGY.—The term "energy technology" means technology, including—

(A) fossil energy;

(B) carbon sequestration;

(C) nuclear energy;

(D) renewable energy;

(E) energy efficiency programs;

(f) energy efficiency technologies.

(c) ESTABLISHMENT.—The Secretary shall establish an Advanced Research Projects Authority—Energy to overcome the long-term and high-risk technological barriers in the development of energy technologies.

(d) DIRECTOR.—

(1) APPOINTMENT.—The Secretary shall appoint a Director of the Authority.

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

(e) PROGRAMS.—The Director shall—

(A) employ such qualified technical staff as are necessary to carry out the duties of the Authority, including providing staff for the Advisory Committee, engineering laboratories, and other Federally Funded Research and Development Centers established under this section that are not achieving the goals of this section;

(B) establish or expand programs that enhance—

(i) the quality of science education in elementary and secondary schools with respect to conventional and emerging energy sources and uses;

(ii) the understanding of students of the science, economics, and environmental impacts of energy production and consumption.

(f) GRANTS.—The Secretary shall award grants, on a competitive basis, under this section and shall provide grants to States to assist the States in establishing or expanding programs to enhance the quality of science education in elementary schools with respect to conventional and emerging energy sources and uses.

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

(h) USES OF FUNDS.—

(1) IN GENERAL.—The non-Federal share of the costs of establishing or expanding high-quality energy education curricula and programs under this section shall be 50 percent.

(2) DURATION.—A grant under this section shall be awarded for a term of 5 years.

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

(4) INFORMATION.—Each fiscal year, the Advisory Board shall report to the Secretary on the progress and future plans of the Advisory Board.

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

(A) provide recommendations to the Secretary and the Director on matters relating to the program established under this section; and

(B) provide recommendations to the Advisory Board for the Secretary, the Director, and the Advisory Board for the Secretary, the Director, and the Advisory Board.
Section 971(b) of the Energy Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—
(1) in paragraph (2), by striking "and" at the end;
(2) in paragraph (3) by striking "$4,200,000,000" in inserting "$4,800,000,000"; and
(3) by striking the period at the end and inserting a semicolon.

SEC. 2007. DISCOVERY SCIENCE AND ENGINEERING INNOVATION INSTITUTES.

SEC. 2008. PROTECTING AMERICA’S COMPETITIVE EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.

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

(b) ESTABLISHMENT.—The Secretary shall establish a graduate fellowship program for eligible students pursuing a doctoral degree in a mission area of the Department.

(c) SELECTION.—
(1) IN GENERAL.—The Secretary shall award fellowships to eligible students under this section that require an eligible student to—
(A) pursue a field of science or engineering of importance to the mission area of the Department;
(B) rank in the upper 10 percent of the class of the eligible student;
(C) demonstrate to the Secretary—
(i) the capacity to understand technical topics related to the fellowship that can be derived from the first principles of the technical topics;
(ii) imagination and creativity;
(iii) leadership skills in organizations or intellectual endeavors, demonstrated through awards and past experience; and
(iv) excellent verbal and communication skills to explain, defend, and demonstrate an understanding of technical subjects related to the fellowship; and
(D) be a citizen or legal permanent resident of the United States.

(d) AWARDS.—
(1) AMOUNT.—A fellowship awarded under this section shall—
(A) provide an annual living stipend; and
(B) cover—
(i) graduate tuition at an institution of higher education; and
(ii) incidental expenses associated with curricular and co-curricular activities of the institution’s higher education (including books, computers and software).

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

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

(e) ADMINISTRATION.—The Secretary (acting through the Director of Mathematics, Science, and Engineering Education) shall—
(1) establish the program established under this section; and,
(2) enter into a contract with a non-profit entity to administer the program, including the selection and award of fellowships.

(f) AUTHORIZATION OF APPROPRIATIONS.—

SEC. 2009. TITLE IX COMPLIANCE.

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

SEC. 2011. DISTINGUISHED SCIENTIST PROGRAM.

SEC. 2012. Distinguished Scientists Program.
higher education at a minimum rank of professor.

(2) NATIONAL LABORATORY.—An appointment by a National Laboratory under this section shall be for 6 years, consisting of 2 3-year funding allotments.

(b) ESEA Definitions.—Unless otherwise specified in this division, the terms used in this division have the meanings given the terms in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(b) OTHER DEFINITIONS.—In this division:

(1) CRITICAL FOREIGN LANGUAGE.—The term ‘critical foreign language’ means a language that is determined, after consultation with the heads of such Federal departments and agencies as the Secretary determines appropriate, is critical to the national security and economic competitiveness of the United States.

(2) SECRETARY.—The term ‘Secretary’ means the Secretary of Education.

TITLE I—TEACHER ASSISTANCE SUBTITLE A—Teacher Assistance for Competitive Tomorrow

SEC. 3111. PURPOSE.

The purpose of this subtitle is—

(1) to develop and implement programs to provide integrated courses of study in mathematics, science, engineering, or critical foreign languages, and teacher education, that lead to a baccalaureate degree with concurrent teacher certification;

(2) to develop and implement 2- or 3-year part-time master’s degree programs in mathematics, science, or critical foreign language education for teachers in order to enhance the teachers’ content knowledge and pedagogical skills; and

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

SEC. 3112. DEFINITIONS.

In this subtitle:

(1) CHILDREN FROM LOW-INCOME FAMILIES.—The term ‘children from low-income families’ means children described in section 112(c)(1)(A) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6333(c)(1)(A)).

(2) ELIGIBLE RECIPIENT.—The term ‘eligible recipient’ means an institution of higher education that receives grant funds under this subtitle on behalf of a department of mathematics, engineering, science, or a critical foreign language, or on behalf of a department or school with a competency-based degree program in mathematics, science, engineering, or a critical foreign language that includes teacher certification; and

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

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

(6) TEACHING SKILLS.—The term ‘teaching skills’ means the ability to—

(A) increase student achievement;

(B) effectively convey and explain academic subject matter;

(C) employ strategies that—

(1) are based on scientifically based research;

(ii) are specific to academic subject matter; and

(iii) focus on the identification of, and tailoring of, academic instruction to, students’ specific learning needs, particularly children with disabilities, students who are limited English proficient, and students who are gifted and talented;

(D) conduct ongoing assessment of student learning;

(E) effectively manage a classroom; and

(F) communicate and work with parents and guardians, and involve parents and guardians in their children’s education.

SEC. 3113. PROGRAMS FOR BACCALAUREATE DEGREES IN MATHEMATICS, SCIENCE, ENGINEERING, OR CRITICAL FOREIGN LANGUAGES, WITH CONCURRENT TEACHER CERTIFICATION.

(a) PROGRAM AUTHORIZED.—From the amounts made available under section 3114(d) for fiscal year 2008 (to support up to 30 appointments under this section) and $60,000,000 for fiscal year 2009 (to support up to 60 such appointments), there are appropriated to be appropriated to carry out this section—

(1) $30,000,000 for fiscal year 2008 (to support up to 30 appointments under this section); and

(ii) for which not less than 20 percent of the recipients to develop and implement programs to provide courses of study in mathematics, science, engineering, or critical foreign languages that—

(iii) are integrated with teacher education;

(iv) lead to a baccalaureate degree with concurrent teacher certification; and

(v) include ambitious goals that are based on scientifically based research.

(2) b) APPLICATION.—Each eligible recipient applying for a grant under this section shall submit an application to the Secretary at such time and in such manner as the Secretary may require.

(1) a) DESCRIBE THE PROGRAM.—Each application submitted under this section shall describe the program for which assistance is sought.

(b) EACH APPLICANT.—Each eligible recipient applying for a grant under this section shall submit an application to the Secretary at such time and in such manner as the Secretary may require. Each application shall—

(1) describe the program for which assistance is sought;

(2) describe how a department of mathematics, science, engineering, or a critical foreign language part-time master’s degree preparation program will ensure significant collaboration with a teacher preparation program in the development of undergraduate degrees in mathematics, science, engineering, or a critical foreign language, with concurrent teacher certification, including providing student teaching and other clinical classroom experience;

(3) describe how a department or school participating in the partnership with a competency-based degree program has ensured,
in the development of a baccalaureate degree program in mathematics, science, engineering, or a critical foreign language, the provision of concurrent teacher certification, including high-quality research, laboratory, or internship experiences, and other clinical classroom experiences;

(3) describe the high-quality research, laboratory, or internship experiences, integrated with coursework, that will be provided under the program;

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

(5) how the program role of the graduate participants will be encouraged to teach in schools determined by the partnership to be most in need, and what assistance in finding employment in such schools will be provided;

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

(7) describe how the activities of the partnership will be coordinated with any activities funded through other Federal grants, and how the partnership will continue the activities assisted under the program when the grant period ends;

(8) describe how the partnership will assess the content knowledge and teaching skills of the participants.

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

(c) AUTHORIZED ACTIVITIES.—

(1) In general.—Each eligible recipient receiving a grant under this section shall use the grant funds to enable a partnership to develop and implement a program to provide courses of study in mathematics, science, engineering, or a critical foreign language that—

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

(B) lead to a baccalaureate degree in mathematics, science, engineering, or a critical foreign language with concurrent teacher certification.

(2) Program requirements.—The program shall—

(A) provide high-quality research, laboratory, or internship experiences for program participants;

(B) provide student teaching or other clinical classroom experiences that—

(i) are integrated with coursework; and

(ii) lead to the participants’ ability to demonstrate effective teaching skills;

(C) if implementing a program in which program participants are prepared to teach mathematics, science, technology, or engineering courses, include strategies for improving student literacy;

(D) encourage the participation of individuals who are members of groups that are underrepresented in the teaching of mathematics, science, technology, engineering, or critical foreign languages;

(E) encourage participants to teach in schools determined by the partnership to be most in need, and actively assist the participants in finding employment in such schools;

(F) offer training in the use of and integration of educational technology;

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

(i) increasing the percentage of highly qualified mathematics, science, or critical foreign language teachers in those schools determined by the partnership to be most in need;

(ii) increasing their academic achievement in mathematics, science, and, where applicable, technology and engineering;

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

(iv) increasing the number of elementary, middle school, and secondary school students enrolled in and continuing in critical foreign language courses;

(II) collect data on the employment placement of all graduates of the program, including information on how many graduates are teaching and in what kinds of schools;

(H) provide any other information the Secretary may reasonably require—

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

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

(I) induction programs;

(II) promotion of effective teaching skills; and

(III) providing opportunities for regular professional development.

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

(II) Annual Report.—Each eligible recipient receiving a grant under this section shall collect and report to the Secretary annually such information as the Secretary may reasonably require, including—

(1) the number of participants in the program;

(2) information on the academic majors of participating students;

(3) the race, gender, income, and disability status of program participants;

(4) the extent to which the program succeeded in meeting the objectives and benchmarks described in subsection (c)(2)(G); and

(5) the data collected under subparagraphs (G) and (H) of subsection (c)(2).

(e) Technical Assistance.—From the funds made available under section 3116(d), the Secretary may provide technical assistance to an eligible recipient developing a baccalaureate or critical foreign language that lead to a 1 year master’s degree program in mathematics, science, or critical foreign language that enhances the teachers’ content knowledge and teaching skills;

(II) the provision of rigorous student outcomes for teachers teaching in schools determined by the partnership to be most in need, will be encouraged to apply for; and participate in the program;

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

(9) how the partnership will continue the activities assisted under the grant when the grant period ends;

(10) whether the partnership will assess, during the program, the content knowledge and teaching skills of the program participants; and

(11) methods to ensure applicants to the master’s degree program for professionals in mathematics, science, or critical foreign language demonstrate advanced knowledge in the relevant subject.

(c) AUTHORIZED ACTIVITIES.—Each eligible recipient receiving a grant under this section shall use the grant funds to enable a partnership to develop and implement a program that—

(1) provide any other information the Secretary may reasonably require—

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

(B) increase the numbers of elementary school, middle school, and secondary school students enrolled and continuing in critical foreign language courses;

(2) the program will—

(A) promote effective teaching skills so...
art applications of mathematics, science, technology, and engineering into the classroom, working with school administrators in establishing-in-service professional development activities in dualing data and assessments to improve student academic achievement;
(3) use high-quality research, laboratory, or in-service experiences for program participants that are integrated with coursework;
(4) provide student teaching or clinical placements for such teachers; and
(5) if implementing a program in which participants are prepared to teach mathematics or science courses, provide strategies for increasing the participation of:
(A) individuals who are members of groups that are underrepresented in the teaching of mathematics, science, engineering, technology, or critical foreign languages;
(B) members of the Armed Forces who are transitioning to civilian life; and
(C) teachers teaching in schools determined by the partnership to be most in need, and
(d) the extent of participation, based on need, as appropriate;
(9) create opportunities for enhanced and ongoing professional development for teachers that improves the mathematics and science content knowledge and teaching skills of such teachers; and
(10) evaluate and report on the impact of the program, in accordance with subsection (d).
Subtitle B—Advanced Placement and International Baccalaureate Programs
SEC. 3211. PURPOSE.
It is the purpose of this subtitle—
(1) to raise academic achievement through Advanced Placement and International Baccalaureate programs by increasing, by 70,000, over a 4-year period beginning in 2008, the number of teachers serving high-need schools who are qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science, and critical foreign languages, and to increase students;
(2) to increase, to 700,000 per year, the number of students attending high-schools who—
(A) take and score a 3, 4, or 5 on an Advanced Placement examination in mathematics, science, or a critical foreign language administered by the College Board; or
(B) complete a course of study administered by the International Baccalaureate Organization in such a subject;
(3) to increase the availability of, and enrollment in, Advanced Placement or International Baccalaureate courses in mathematics, science, and critical foreign languages, and pre-Advanced Placement or pre-International Baccalaureate courses in such subjects, in high-need schools; and
(4) to support statewide efforts to increase the availability of, and enrollment in, Advanced Placement or pre-International Baccalaureate courses in mathematics, science, and critical foreign languages, and pre-Advanced Placement or pre-International Baccalaureate courses in such subjects, in high-need schools.
SEC. 3212. DEFINITIONS.
In this subtitle—
(1) ADVANCED PLACEMENT OR INTERNATIONAL BACCALAUREATE COURSE.—The term ‘‘Advanced Placement or International Baccalaureate course’’ means a course of college-level instruction provided to middle or secondary school students, terminating in an examination administered by the College Board or the International Baccalaureate Organization, or another such examination approved by the Secretary, or another highly rigorous, evidence-based, postsecondary preparatory program terminating in an examination approved by a nationally recognized educational association.
(2) ELIGIBLE ENTITY.—The term ‘‘eligible entity’’ means—
(A) a State educational agency;
(B) a local educational agency; or
(C) a partnership consisting of—
(1) a national, regional, or statewide nonprofit organization, with expertise and experience in providing Advanced Placement or International Baccalaureate services; and
(2) a State educational agency or local educational agency.
(3) LOW-INCOME STUDENT.—The term ‘‘low-income student’’ has the meaning given the term in section 1707(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6377(3)).
(4) HIGH CONCENTRATION OF LOW-INCOME STUDENTS.—The term ‘‘high concentration of low-income students’’ has the meaning given the term in section 1707(2) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6372(2)).
(5) HIGH-NEED LOCAL EDUCATIONAL AGENCY.—The term ‘‘high-need local educational agency’’ means a local educational agency or educational service agency described in 3123(3)(A).
(6) HIGH-NEED SCHOOL.—The term ‘‘high-need school’’ means a middle school or secondary school—
(A) with a pervasive need for Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages, or for additional Advanced Placement or International Baccalaureate courses in such a subject; and
(B) with a high concentration of low-income students; or
(ii) designated with a school code of 6, 7, or 8, as determined by the Secretary.
SEC. 3212. ADVANCED PLACEMENT AND INTERNATIONAL BACCALAUREATE PROGRAMS.
SEC. 3212A. AUTHORIZATION OF APPROPRIATIONS.
There are authorized to be appropriated to carry out section 3114 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years, of which—
(1) 57.1 percent shall be available to carry out section 3114 for fiscal year 2008 and each succeeding fiscal year; and
(2) 42.9 percent shall be available to carry out section 3114 for fiscal year 2008 and each succeeding fiscal year.
SEC. 3212B. ELIGIBILITY.
(a) PROGRAM AUTHORIZED.—From the amounts appropriated under subsection (l), the Secretary is authorized to award grants, on a competitive basis, to eligible entities to enable the entities to carry out the authorized activities described in subsection (b).
(b) DURATION OF GRANTS.—The Secretary may award grants under this section for a period of not more than 5 years.
(c) CONDITIONS.—The Secretary shall coordinate the activities carried out under this section with the activities carried out under section 1705 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6555).
(d) PRIORITY.—In awarding grants under this section, the Secretary shall give priority to eligible entities that are a part of a State strategy for increasing the availability of Advanced Placement or International Baccalaureate courses in mathematics, science, and critical foreign languages, and pre-Advanced Placement or pre-International Baccalaureate courses in such subjects, in high-need schools; and
(2) promote an increase in participation in Advanced Placement or pre-International Baccalaureate mathematics, science, and critical foreign language courses and examinations in all States.
(1) IN GENERAL.—
(2) CONTENTS.—The application shall, at a minimum, include a description of—
(A) the goals and objectives for the project, including—
Title I—Promising Practices in Mathematics, Science, Technology, and Engineering in Teaching

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

SEC. 3131. PROMISING PRACTICES.

(a) PURPOSE.—The purpose of this section is to strengthen the skills of mathematics, science, technology, and engineering teachers by identifying promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education.

(b) NATIONAL PANEL ON PROMISING PRACTICES IN TEACHING MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING.—The Secretary is authorized to contract with the National Academy of Sciences to convene, not later than 1 year after the date of enactment of this Act, a national panel to establish evidence of promising practices in the teaching of mathematics, science, technology, and engineering in kindergarten through grade 12.

(c) COMPOSITION OF NATIONAL PANEL.—

(1) CONSULTATION.—The Secretary shall enter into a contract with the National Academy of Sciences to establish a panel to identify existing promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education.

(2) NATIONAL PANEL ON PROMISING PRACTICES IN TEACHING MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING.—The Secretary is authorized to contract with the National Academy of Sciences to convene, not later than 1 year after the date of enactment of this Act, a national panel to establish evidence of increasing student academic achievement.

(3) SELECTION.—The National Academy of Sciences shall ensure that the panel established under paragraph (1) broadly represents scientists, practitioners, teachers, principals, and representatives from entities, including urban, suburban, and rural schools.
(C) Representation of teachers from public and private schools.

(3) QUALIFICATIONS OF MEMBERS.—The members of the panel established under paragraph (2) shall be individuals who have substantial knowledge or experience relating to—

(A) mathematics, science, technology, or engineering programs; and

(B) mathematics, science, technology, or engineering curricula content development.

(4) AUTHORIZED ACTIVITIES OF NATIONAL PANEL.—The panel shall—

(1) identify promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education;

(2) identify techniques proven to help teachers increase their skills and expertise in improving student achievement in mathematics, science, technology, and engineering; and

(3) identify areas of need for promising practices in mathematics, science, technology, and engineering.

(5) RELIABILITY AND MEASUREMENT.—The promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education collected under this section shall be—

(A) reliable, valid, and grounded in scientific theory and research;

(B) viewed regularly to assess effectiveness; and

(C) reviewed in the context of State academic assessments and student academic achievement standards.

(6) STUDENTS WITH DIVERSE LEARNING NEEDS.—In identifying promising practices under this section, the panel established under subsection (c) shall take into account the needs of students with diverse learning needs, particularly for students with disabilities and students who are limited English proficient.

(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to—

(1) for grants under this section, $111,000,000 for fiscal year 2008; and

(2) for the program authorized by this section, $30,000,000 for fiscal year 2008.

(8) GUIDANCE.—The technical assistance described in paragraph (4) shall be guided by—

(A) research-based and reflect a demonstrated record of effectiveness; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.

(9) LOCAL USES OF FUNDS.—(1) MANDATORY USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) implement comprehensive mathematics instructional programs, supplemental instructional materials, and intervention programs used by the eligible local educational agency in accomplishing the tasks required to design and implement a project under this section, including assistance in—

(I) preparing the students to enroll in and pass algebra courses by—

(1) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(2) providing targeted help to low-income students who are struggling with mathematics and whose achievement is significantly below grade level;

(II) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(III) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics;

(ii) reflect mathematics content that is research-based and reflect a demonstrated record of effectiveness;

(iii) improve student achievement in mathematics; and

(iv) to monitor student progress in mathematics.

(2) PERMISSIVE USE OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) provide small groups with individual assistance and other school staff;

(ii) assess and evaluate, on a regular basis, the needs of students with disabilities and students who are limited English proficient;

(iii) provide remedial coursework and intervention under this section; and

(iv) conduct activities designed to improve the content knowledge of the teachers, administrators, and other school staff.

(3) PERMISSIVE USES OF FUNDS.—An eligible local educational agency may use the grant under this section to—

(A) adopt and use mathematics instructional materials and assessments; and

(B) provide remedial coursework and interventions for students, which may be provided before or after school.

(4) LOCAL USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) improve the achievement of students performing significantly below grade level; and

(ii) improve student achievement in mathematics; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.

(5) STATE EDUCATIONAL AGENCY.—The Secretary shall disseminate information collected pursuant to this section to the public, State educational agencies, and local educational agencies, and shall publish appropriate and relevant information on the promising practices on the website of the Department in an easy to understand format.

(6) MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING PRACTICES.—

(1) RELIABILITY AND MEASUREMENT.—The promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education collected under this section shall be—

(A) reliable, valid, and grounded in scientific theory and research;

(B) viewed regularly to assess effectiveness; and

(C) reviewed in the context of State academic assessments and student academic achievement standards.

(2) STUDENTS WITH DIVERSE LEARNING NEEDS.—In identifying promising practices under this section, the panel established under subsection (c) shall take into account the needs of students with diverse learning needs, particularly for students with disabilities and students who are limited English proficient.

(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to—

(1) for grants under this section, $111,000,000 for fiscal year 2008; and

(2) for the program authorized by this section, $30,000,000 for fiscal year 2008.

(8) GUIDANCE.—The technical assistance described in paragraph (4) shall be guided by—

(A) research-based and reflect a demonstrated record of effectiveness; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.

(9) LOCAL USES OF FUNDS.—(1) MANDATORY USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) implement comprehensive mathematics instructional programs, supplemental instructional materials, and intervention programs used by the eligible local educational agency in accomplishing the tasks required to design and implement a project under this section, including assistance in—

(I) preparing the students to enroll in and pass algebra courses by—

(1) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(2) providing targeted help to low-income students who are struggling with mathematics and whose achievement is significantly below grade level;

(II) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(III) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics;

(ii) reflect mathematics content that is research-based and reflect a demonstrated record of effectiveness;

(iii) improve student achievement in mathematics; and

(iv) to monitor student progress in mathematics.

(2) PERMISSIVE USE OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) provide small groups with individual assistance and other school staff;

(ii) assess and evaluate, on a regular basis, the needs of students with disabilities and students who are limited English proficient;

(iii) provide remedial coursework and intervention under this section; and

(iv) conduct activities designed to improve the content knowledge of the teachers, administrators, and other school staff.

(3) PERMISSIVE USES OF FUNDS.—An eligible local educational agency may use the grant under this section to—

(A) adopt and use mathematics instructional materials and assessments; and

(B) provide remedial coursework and interventions for students, which may be provided before or after school.

(4) LOCAL USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) improve the achievement of students performing significantly below grade level; and

(ii) improve student achievement in mathematics; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.

(5) STATE EDUCATIONAL AGENCY.—The Secretary shall disseminate information collected pursuant to this section to the public, State educational agencies, and local educational agencies, and shall publish appropriate and relevant information on the promising practices on the website of the Department in an easy to understand format.

(6) MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING PRACTICES.—

(1) RELIABILITY AND MEASUREMENT.—The promising practices in the teaching of mathematics, science, technology, and engineering in elementary and secondary education collected under this section shall be—

(A) reliable, valid, and grounded in scientific theory and research;

(B) viewed regularly to assess effectiveness; and

(C) reviewed in the context of State academic assessments and student academic achievement standards.

(2) STUDENTS WITH DIVERSE LEARNING NEEDS.—In identifying promising practices under this section, the panel established under subsection (c) shall take into account the needs of students with diverse learning needs, particularly for students with disabilities and students who are limited English proficient.

(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to—

(1) for grants under this section, $111,000,000 for fiscal year 2008; and

(2) for the program authorized by this section, $30,000,000 for fiscal year 2008.

(8) GUIDANCE.—The technical assistance described in paragraph (4) shall be guided by—

(A) research-based and reflect a demonstrated record of effectiveness; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.

(9) LOCAL USES OF FUNDS.—(1) MANDATORY USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) implement comprehensive mathematics instructional programs, supplemental instructional materials, and intervention programs used by the eligible local educational agency in accomplishing the tasks required to design and implement a project under this section, including assistance in—

(I) preparing the students to enroll in and pass algebra courses by—

(1) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(2) providing targeted help to low-income students who are struggling with mathematics and whose achievement is significantly below grade level;

(II) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics; and

(III) improving instruction in mathematics from teachers who do not have mathematics content knowledge or expertise in the teaching of mathematics;

(ii) reflect mathematics content that is research-based and reflect a demonstrated record of effectiveness;

(iii) improve student achievement in mathematics; and

(iv) to monitor student progress in mathematics.

(2) PERMISSIVE USE OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) provide small groups with individual assistance and other school staff;

(ii) assess and evaluate, on a regular basis, the needs of students with disabilities and students who are limited English proficient;

(iii) provide remedial coursework and intervention under this section; and

(iv) conduct activities designed to improve the content knowledge of the teachers, administrators, and other school staff.

(3) PERMISSIVE USES OF FUNDS.—An eligible local educational agency may use the grant under this section to—

(A) adopt and use mathematics instructional materials and assessments; and

(B) provide remedial coursework and interventions for students, which may be provided before or after school.

(4) LOCAL USES OF FUNDS.—(A) An eligible local educational agency may use the grant under this section to—

(i) improve the achievement of students performing significantly below grade level; and

(ii) improve student achievement in mathematics; and

(B) support the implementation of comprehensive mathematics initiatives in State educational agencies.
(i) researchers with expertise in the pedagogy of mathematics; 
(ii) mathematicians; and 
(iii) mathematics educators serving high-risk, low-achieving schools and eligible local educational agencies; and

(E) an assurance that the State will establish a process to safeguard against conflicts of interest consistent with subsection (g)(2), for individuals providing technical assistance on behalf of the State educational agency or participating in the State peer review process described in subsection (b). 

(2) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—Each eligible local educational agency desiring to participate in a summer learning grant program under this section shall submit an application to the State educational agency at such time and in such manner as the State educational agency may require. Each application shall include—

(A) an assurance that the eligible local educational agency will provide assistance to 1 or more schools that are—

(i) served by the eligible local educational agency; and

(ii) described in section 3201(b); 

(B) a description of the grades kindergarten through grade 9, and of the schools, that will be served; 

(C) information, on an aggregate basis, on each school to be served by the project, including an assurance that the programs or strategies that will be used for the project, including an assurance that the programs or strategies are research-based and reflect a demonstrated record of effectiveness and are aligned with State academic achievement standards; 

(D) a description of the eligible entity’s plans for evaluating the impact of professional development and leadership activities in mathematics on the content knowledge and expertise of teachers, administrators, or other school staff; and 

(H) any other information the State educational agency may reasonably require. 

(2) E LIGIBLE ENTITY.—The term "eligible entity" means an entity that—

(A) desires to participate in a summer learning grant program under this section by providing students with access to summer learning in mathematics, technology, and problem-solving to ensure that students do not experience learning losses over the summer and to remedy, reinforce, and accelerate the learning of mathematics and problem-solving.

(B) operations, activities, or programs of the Federal Government contractor, to manage, direct, control, or suggest the selection or arrangement of a grant program, instructional materials, or program of instruction by a State, local educational agency, or school.

(b) MATCHING REQUIREMENTS.—

(1) STATE EDUCATIONAL AGENCY.—A State educational agency that receives a grant under this section shall provide, from non-Federal sources, an amount equal to 50 percent of the amount of the grant, in cash or in kind, to carry out the activities supported by the grant, of which not more than 20 percent may be provided by local educational agencies within the State. 

(2) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—The eligible local educational agency that receives a grant under this section shall provide, from non-Federal sources, an amount equal to 50 percent of the amount of the grant, in cash or in kind, to participate in the State peer review process described in subsection (b). 

(3) PRIVACY PROTECTION.—The data in the report shall be reported in a manner that—

(A) protects the privacy of individuals; and 

(B) complies with the requirements of the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g). 

(j) EVALUATION AND TECHNICAL ASSISTANCE.—

(1) EVALUATION.—

(A) IN GENERAL.—The Secretary shall conduct an annual independent evaluation, by grant or by contract, of the program assisted under this section, on the basis of an assessment of the impact of the program on student academic achievement and teacher performance, and may use funds available to carry out this section to conduct the evaluation. 

(B) REPORT.—The Secretary shall annually submit, to the Committee on Health, Education, Labor, and Pension of the Senate, the Committee on Education and the Workforce of the House of Representatives, and the Committees on Appropriations of the Senate and House of Representatives, a report on the results of the evaluation. 

(2) TECHNICAL ASSISTANCE.—The Secretary may use funds made available under paragraph (a) to provide technical assistance to prospective applicants and to eligible local educational agencies receiving a grant under this section.

(3) RESERVATION OF FUNDS.—The Secretary may reserve not more than 2.5 percent of funds appropriated under subsection (k) for a fiscal year to carry out this subsection.

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $146,700,000 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years.

SEC. 3202. SUMMER TERM EDUCATION PROGRAMS. 

(a) PURPOSE.—The purpose of this section is to create opportunities for summer learning by providing students with access to summer learning in mathematics, technology, and problem-solving to ensure that students do not experience learning losses over the summer and to remedy, reinforce, and accelerate the learning of mathematics and problem-solving.

(b) DEFINITIONS.—In this section—

(1) EDUCATIONAL SERVICE AGENCY.—The term ‘‘educational service agency’’ has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(2) ELIGIBLE ENTITY.—The term ‘‘eligible entity’’ means an entity that—

(A) desires to participate in a summer learning grant program under this section by providing students with access to summer learning opportunities described in subsection (d); or

(B) is—

(i) a high-need local educational agency; or

(ii) a consortium of a high-need local educational agency and 1 or more of the following entities:

(A) a local educational agency;
(II) A community-based youth development organization with a demonstrated record of effectiveness in helping students learn;

(III) An institution of higher education;

(IV) An educational service agency; or

(V) A for-profit educational provider, non-profit organization, science center, museum, or summer learning camp, that has been approved by the State educational agency to provide the summer learning opportunity described in subsection (d)(4)(A)(ii).

(3) ELIGIBLE STUDENT. —The term "eligible student" means a student who—

(A) is eligible for a free lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.); and

(B) is served by a local educational agency identified by the State educational agency in the application described in subsection (c)(2).

(4) INSTITUTION OF HIGHER EDUCATION. —The term "institution of higher education" has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(5) LOCAL EDUCATIONAL AGENCY. —The term "local educational agency" means the term described in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(6) HIGH-NEED LOCAL EDUCATIONAL AGENCY. —The term "high-need local educational agency" has the meaning described in subsection (d)(4)(A)(ii).

(A) that serves not less than 10,000 children from low-income families;

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

(C) that serves not less than 600 students in average daily attendance at the schools that are served by the agency, and all of whose schools are designated with a code of 6, 7, or 8 as determined by the Secretary of Education.

(7) SECRETARY. —The term "Secretary" means the Secretary of Education.

(8) STATE.—The term "State" means each of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau.

(9) STATE EDUCATIONAL AGENCY. —The term "State educational agency" has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(c) DEMONSTRATION GRANT PROGRAM. —

(1) PROGRAM AUTHORIZED. —

(A) From the funds appropriated under subsection (f) for a fiscal year, the Secretary shall carry out a demonstration grant program in which the Secretary awards grants on a competitive basis to qualified State educational agencies to enable the State educational agencies to pay the Federal share of summer learning grants for eligible students.

(B) NUMBER OF GRANTS. —For each fiscal year, the Secretary shall award not more than 5 grants under this section.

(2) APPLICATION.—A State educational agency that desires to receive a grant under this section shall submit an application to the Secretary at such time, in such manner, and accompanied by such information as the Secretary may require. Such application shall identify the areas in the State where the summer learning program will be offered by the educational agencies that serve such areas.

(3) AWARD BASIS. —

(A) SPECIAL CONSIDERATION. —In awarding grants under this section, the Secretary shall give special consideration to a State educational agency that agrees, to the extent possible, to enter into agreements identified by the Secretary to target services to children in grades K–8.

(B) HIGHER EDUCATION.—In awarding grants under this section, the Secretary shall take into consideration an equitable geographic distribution of the grants.

(d) SUMMER LEARNING GRANTS.—

(1) USE OF GRANTS FOR SUMMER LEARNING GRANTS. —

(A) IN GENERAL. —Each State educational agency that receives a grant under subsection (c) for a fiscal year shall use the funds to provide summer learning grants for the fiscal year to eligible students in the State who desire to attend a summer learning opportunity offered by an eligible entity that enters into an agreement with the State educational agency under paragraph (4)(A).

(B) AMOUNT; FEDERAL AND NON-FEDERAL SHARES. —

(i) AMOUNT.—The amount of a summer learning grant provided under this section shall be—

(I) for each of the fiscal years 2008 through 2011, $1,600; and

(II) for fiscal year 2012, $1,800.

(ii) FEDERAL SHARE.—The Federal share of each summer learning grant shall be not less than 5 percent of the amount of the summer learning grant determined under clause (i).

(iii) NON-FEDERAL SHARE.—The non-Federal share of each summer learning grant shall be not less than 50 percent of the amount of the summer learning grant determined under clause (i), and shall be provided from non-Federal sources.

(2) DESIGNATION OF SUMMER SCHOLARS.—Eligible students who receive summer learning grants under this section shall be known as "summer scholars".

(3) SELECTION OF SUMMER LEARNING OPPORTUNITIES.—

(A) DISSEMINATION OF INFORMATION. —A State educational agency that receives a grant under subsection (c) shall disseminate information about summer learning opportunities and summer learning grants to the families of eligible students in the State.

(B) APPLICATION.—The parents of an eligible student who is interested in having their child participate in a summer learning opportunity and receive a summer learning grant shall submit an application to the State educational agency that includes a ranked list of preferred summer learning opportunities.

(C) PROCESS.—A State educational agency that receives an application under subparagraph (B) shall—

(i) process such application;

(ii) determine whether the eligible student shall receive the grant;

(iii) coordinate the assignment of eligible students receiving summer learning grants with summer learning opportunities; and

(iv) if demand for a summer learning opportunity exceeds capacity, the State educational agency shall prioritize applications to low-achieving eligible students.

(D) FLEXIBILITY.—A State educational agency may assign a summer scholar to a summer learning opportunity program that is offered in an area served by a local educational agency that is not the local educational agency serving the area where such scholar resides.

(E) REQUIREMENT OF ACCEPTANCE.—An eligible student, or such student’s parent or legal representative, and the State educational agency serving the area where such scholar resides, or such scholar, shall accept the opportunity provided by the State educational agency.

(F) AGREEMENT WITH ELIGIBLE ENTITY.—A State educational agency shall enter into an agreement with one or more eligible entities offering a summer learning opportunity, under which—

(i) the eligible entity shall agree to make payments to the eligible entity, in accordance with subparagraph (B), for a summer scholar; and

(ii) the eligible entity shall agree to provide the summer scholar with a summer learning opportunity that—

(C) meets the requirements prescribed in subparagraph (B).

(G) ADMINISTRATIVE COSTS.—A State educational agency shall reduce the amount provided to the eligible entity pursuant to clause (i) by a percentage that is equal to the percentage of the summer learning opportunity not attended by such scholar.

(h) FEDERAL AND NON-FEDERAL FUNDS.—

(1) GENERAL.—Except as provided in clause (i), a State educational agency shall make a payment to an eligible entity for a summer scholar that is equal to the amount determined under paragraph (1)(B)(i).

(2) ADJUSTMENT.—In the case in which a summer scholar does not attend the full summer learning opportunity, the State educational agency shall reduce the amount provided to the eligible entity pursuant to clause (i) by a percentage that is equal to the percentage of the summer learning opportunity not attended by such scholar.

(i) ADMINISTRATIVE COSTS.—A State educational agency or eligible entity receiving a grant under this section may use not more than 5 percent of such funding for administrative costs associated with carrying out this section.
the scholars, disaggregated by the subgroups described in subsection (d)(4)(A)(i)(IV).

(2) REPORT.—For each year funds are appropriated under subsection (f) for this section, the Secretary shall make accessible to the public a report to the HELP Committee of the Senate and the Education and Labor Committee of the House on the summer learning grant programs, including the effectiveness of the summer learning opportunities in improving student achievement and learning.

(3) SUMMER LEARNING GRANTS WEBSITE.—The Secretary shall make accessible on the Department of Education website, information for parents and school personnel on successful programs and curricula, and best practices, for summer learning opportunities.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary for fiscal year 2008 through fiscal year 2012.

SEC. 3203. MATH SKILLS FOR SECONDARY SCHOOL STUDENTS.

(a) The purposes of this section are—

(1) to provide assistance to State educational agencies and local educational agencies implementing effective research-based mathematics programs for students in secondary schools, including students with disabilities and students with limited English proficiency;

(2) to improve instruction in mathematics for students in secondary school through the implementation of mathematics programs and the support of comprehensive mathematics initiatives that are based on the best available evidence of effectiveness;

(3) to provide targeted help to low-income students struggling with mathematics and whose achievement is significantly below grade level; and

(4) to provide in-service training for mathematics can assist secondary school teachers to utilize research-based mathematics instruction to develop and improve students' mathematical abilities and knowledge, and assist teachers in assessing and improving student academic achievement.

(b) DEFINITIONS.—In this section:

(1) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—The term 'eligible local educational agency' means a local educational agency that is eligible to receive funds, and that is receiving or developing a program under title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311 et seq.).

(2) MATHEMATICS COACH.—The term 'mathematics coach' means a certified or licensed mathematics teacher, with a demonstrated effectiveness in teaching mathematics to students with specialized needs in mathematics and improving academic achievement in mathematics, a command of mathematical content knowledge, and the ability to work with classroom teachers to improve the teaching and learning of mathematics and, if appropriate, to support mathematics improvement, who works on site at a school—

(A) to train teachers to better assess student learning in mathematics;

(B) to train teachers to assess students' mathematics skills and identify students who need remediation; and

(C) to develop and implement remedial mathematics instruction, including for—

(i) students in after-school and summer school programs;

(ii) students requiring additional instruction;

(iii) students with disabilities; and

(iv) students with limited English proficiency.

(3) SECONDARY SCHOOL.—The term 'secondary school' means a school that provides secondary education, as determined under State law.

(4) SECRETARY.—The term 'Secretary' means the Secretary of Education.

(c) APPLICATIONS.—There are authorized to be appropriated to carry out this section such sums as may be necessary for fiscal year 2008 and each of the 3 succeeding calendar years.

(d) GRANTS AUTHORIZED.—

(1) IN GENERAL.—From funds appropriated under subsection (c) for a fiscal year, the Secretary shall award grants, in accordance with the requirements of this section, that will provide grants on a competitive basis to State educational agencies to award grants to eligible local educational agencies for the purpose of establishing mathematics programs to improve the overall mathematics performance of secondary school students in the State.

(2) LENGTH OF GRANT.—A grant to a State educational agency under this section shall be awarded for a period of 4 years.

(e) RESERVATION OF FUNDS BY THE SECRETARY.—From amounts appropriated under subsection (c) for a fiscal year, the Secretary may reserve—

(1) not more than 3 percent of such amounts to fund national activities in support of the programs assisted under this section, such as research and dissemination of best practices, except that the Secretary may not use the reserved funds to award grants directly to local educational agencies; and

(2) not more than 1⁄2 of 1 percent of such amounts for the Bureau of Indian Education of the Department of the Interior to carry out the services and activities described in subsection (b) for Indian children.

(f) GRANT FORMULAS.—

(1) COMPETITIVE GRANTS TO STATE EDUCATIONAL AGENCIES.—From amounts appropriated under subsection (c) and not reserved under subsection (e), the Secretary shall award grants, on a competitive basis, to State educational agencies to enable the State educational agencies to provide subgrants to eligible local educational agencies to establish mathematics programs for the purpose of improving overall mathematics performance of secondary students in the State.

(2) MINIMUM GRANT.—The Secretary shall ensure that the minimum grant made to any state educational agency under this section shall be not less than $500,000.

(g) APPLICATIONS.—

(1) IN GENERAL.—In order to receive a grant under this section, a State educational agency shall submit an application to the Secretary at such time, in such manner, and accompanied by such information as the Secretary may require. Each such application shall meet the following conditions:

(A) A State educational agency shall not include the application for assistance under this section in a consolidated application submitted under section 6092 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7842).

(B) The State educational agency's application shall include assurances that such application and any technical assistance provided by the State will be guided by a peer review team, which shall consist of—

(i) researchers with expertise in the pedagogy of mathematics;

(ii) mathematicians; and

(iii) mathematics educators serving high-risk, high-achievement schools and eligible local educational agencies.

(C) The State educational agency will participate in the evaluation of the State educational agency's program under this section.

(D) The State educational agency's application shall include a program plan that contains a description of the following:

(i) How the State educational agency will assist eligible local educational agencies in implementing subgrants, including providing ongoing professional development for mathematics coaches, teachers, paraprofessionals, and administrators;

(ii) How the State educational agency will help eligible local educational agencies identify high-quality research-based instructional mathematics assessments;

(iii) How the State educational agency will help eligible local educational agencies identify appropriate and effective materials, programs, and assessments for students with disabilities and students with limited English proficiency.

(v) How the State educational agency will ensure mathematics programs in the State to increase overall effectiveness in improving mathematics instruction and student academic achievement, including for students with disabilities and students with limited English proficiency.

(ix) How the State educational agency will report results and evaluate the effectiveness of the eligible local educational agency activities funded under this section.

(h) STATE USE OF FUNDS.—Each State educational agency receiving a grant under this section shall—

(1) establish a peer review team comprised of researchers with expertise in the pedagogy of mathematics, mathematicians, and mathematics educators from high-risk, high-achievement schools, to provide guidance to eligible local educational agencies in selecting and developing and implementing appropriate, research-based mathematics programs for secondary school students;

(2) use 80 percent of the grant funds received under this section for a fiscal year to fund high-quality applications for subgrants to eligible local educational agencies having applications approved under subsection (j); and

(3) use 20 percent of the grant funds received under this section for activities described in subsection (g).
(ii) high-quality professional development to teachers and mathematics coaches in the State;

(C) to oversee and evaluate subgrant services and activities undertaken by each eligible local educational agency as described in subsection (i)(3); and

(D) for administrative costs, of which not more than 5 percent of the grant funds may be used for planning, administration, and reporting.

(i) NOTICE TO ELIGIBLE LOCAL EDUCATIONAL AGENCIES.—Each State educational agency receiving a grant under this section shall provide notice to all eligible local educational agencies in the State about the availability of subgrants under this section.

(ii) PROHIBITIONS.—

(A) the application of the matching requirements described in paragraph (3) to a grant applicant; and

(B) providing a waiver best serves the purposes of the application to the Secretary.

(2) WAIVER.—The Secretary may waive all or a portion of the matching requirements described in paragraph (1) for any fiscal year, if the Secretary determines that the application to the matching requirement will result in serious hardship for the State educational agency; or

(B) providing a waiver best serves the purposes of the program assisted under this section.

(3) INFORMATION.—Each State educational agency receiving a grant under this section shall provide the Secretary, each eligible local educational agency receiving a grant under this section, each eligible local educational agency receiving a subgrant under this subsection, and the Committee on Education and Labor of the House of Representatives, on each of the waivers granted under paragraph (2)(B).

(4) RULE OF CONSTRUCTION.—Nothing in this section shall be construed to authorize or permit the Secretary, Department of Education, or the Committee on Education and Labor of the House of Representatives, on the waivers granted under paragraph (2)(B).

(5) NEW SERVICES AND ACTIVITIES.—

(A) the implementation of research-based mathematics programs in the State; and

(B) the implementation of research-based mathematics programs in the State.
(I) significantly increased the number of students achieving at the proficient or advanced level on the State student academic achievement standards in mathematics under §1111(b)(1)(D)(ii) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(1)(D)(ii));

(II) significantly increased the percentages of students achieving at the proficient or advanced levels on such State academic content standards in mathematics;

(III) significantly increased the number of students making significant progress toward meeting or exceeding academic content standards in mathematics; and

(IV) successfully implemented this section;

(B) the percentage of students in the schools served by the eligible local educational agency who enroll in advanced mathematics courses in grades 9 through 12, including the percentage of such students who pass such courses; and

(C) the progress made in increasing the quality and accessibility of professional development and leadership activities in mathematics, resulting in greater content knowledge and expertise of teachers, administrators, and other school staff, except that the Secretary shall not require or insist until after the third year of a grant awarded under this section.

(2) REPORTING AND DISAGREGATION.—The information required under paragraph (1) shall include—

(A) reported in a manner that allows for a comparison of aggregated score differentials of student academic achievement before (to the extent required by the Secretary) and after implementation of the project assisted under this section; and

(B) disaggregated in the same manner as information is disaggregated under section 1111(b)(1)(C)(i) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(1)(C)(i)).

TITLE III—FOREIGN LANGUAGE PARTNERSHIP PROGRAM

SEC. 3301. FINDINGS AND PURPOSE.

(a) FINDINGS. — Congress makes the following findings:

(1) The United States faces a shortage of skilled professionals with higher levels of proficiency in foreign languages and area knowledge.

(2) Given the Nation's economic competitiveness interests, it is crucial that our Nation expand the number of Americans who are able to function effectively in the environments in which critical foreign languages are spoken.

(3) Students' ability to become proficient in foreign languages can be addressed by starting language learning at a younger age and expanding opportunities for continuous foreign language education from elementary school through secondary school.

(b) PURPOSE. — The purpose of this title is to significantly increase—

(1) the opportunities to study critical foreign languages and the context in which the critical foreign languages are spoken; and

(2) the number of American students who achieve the highest level of proficiency in critical foreign languages.

SEC. 3302. DEFINITIONS.

In this title:

(1) ELIGIBLE RECIPIENT.—The term “eligible recipient” means an institution of higher education that receives grant funds under this title on behalf of a partnership for use in carrying out the activities assisted under this title.

(2) PARTNERSHIP.—The term “partnership” means a partnership that—

(A) shall include—

(i) an institution of higher education; and

(ii) 1 or more local educational agencies; and

(B) may include 1 or more entities that support the purposes of this title.

(3) SUPERIOR LEVEL OF PROFICIENCY.—The term “superior level of proficiency” means the professional working level, as measured by the Federal Interagency Language Roundtable (ILR) or by other generally recognized measures of superior standard.

SEC. 3303. PROGRAM AUTHORIZED.

(a) PROGRAM AUTHORIZED.—

(1) IN GENERAL. — The Secretary is authorized to award grants to eligible recipients to enable partnerships served by the eligible recipients to establish articulated programs of study in critical foreign languages that will enable students to advance successfully from elementary school through postsecondary education and achieve higher levels of proficiency in a critical foreign language.

(2) DURATION. — A grant awarded under paragraph (1) shall be for a period of not more than 5 years. A grant may be renewed for not more than 2 additional 5-year periods, if the Secretary determines that the partnership's program is effective and the renewal will best serve the purposes of this title.

(b) APPLICATIONS.—

(1) IN GENERAL. — Each eligible recipient desiring a grant under this section shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require.

(2) CONTENTS.—Each application shall—

(A) identify each local educational agency partner, including contact information and letters of commitment, and describe the responsibilities of each member of the partnership, including—

(i) the role of each of the partners will be involved in planning, developing, and implementing—

(I) program curriculum and materials; and

(II) teacher professional development; and

(ii) what resources each of the partners will provide; and

(b) the partners will contribute to ensuring continuity of student progress from elementary school through the postsecondary level;

(B) describe how an articulated curriculum for students to be developed and implemented, which may include the use and integration of technology into such curriculum;

(C) identify target proficiency levels for students at all benchmarks (such as grades 4, 8, and 12), and describe how progress toward those proficiency levels will be assessed at the benchmarks, and how the program will ensure the results of the assessments to continue progress toward achieving a superior level of proficiency at the postsecondary level;

(D) describe how the partnership will—

(i) ensure that students from a program assisted under this title who are beginning postsecondary education will be assessed and enabled to progress to a superior level of proficiency;

(ii) address the needs of students already at, or near, the superior level of proficiency, which may include assessment for placement purposes, customized and individualized language learning opportunities, and experimental and interdisciplinary language programs; and

(E) describe how the partnership will work with institutions of higher education outside the partnership to provide postbaccalaureate options for postsecondary education consistent with the purposes of this title;

(F) describe the partnership's role in implementing programs of study that contribute to the purposes of this title; and

(G) describe the partnership's role in implementing programs of study that contribute to the purposes of this title.

(c) USES OF FUNDS.—Grant funds awarded under this title shall be used—

(1) to develop and implement programs at the elementary school level through postsecondary education, consistent with the purpose of this title, including—

(A) the development of curriculum and instructional materials;

(B) recruitment of students; and

(2) may be used for—

(A) teacher recruitment (including recruitment from other professions and recruitment of native-language speakers in the community); and

(B) development of appropriate assessments;

(c) MATCHING REQUIREMENT.—

(1) IN GENERAL. — An eligible recipient that receives a grant under this title shall provide, towards the cost of carrying out the activities supported by the grant, from non-Federal sources, an amount equal to—

(A) 20 percent of the amount of the grant payment for the first fiscal year for which a grant payment is made; and

(B) 30 percent of the amount of the grant payment for the second fiscal year for which a grant payment is made.
SEC. 3304. AUTHORIZATION OF APPROPRIATIONS.

For the purpose of carrying out this title, there are authorized to be appropriated $22,000,000 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years.

TITLE IV—ALIGNMENT OF EDUCATION DATA SYSTEMS

SEC. 4001. ALIGNMENT OF SECONDARY SCHOOL GRADUATION REQUIREMENTS WITH THE DEMANDS OF 21ST CENTURY WORKFORCE, AND SUPPORT FOR P–16 EDUCATION DATA SYSTEMS.

(a) Purpose.—It is the purpose of this section—

(1) to promote more accountability with respect to preparation for higher education, the 21st century workforce, and the Armed Forces, by aligning—

(A) student knowledge, student skills, State content standards and assessments, and curricula, in elementary and secondary education, especially with respect to mathematics, science, reading, and, where applicable, engineering and technology; with

(B) the demands of higher education, the 21st century workforce, and the Armed Forces;

(2) to support the establishment or improvement of statewide P–16 education data systems that—

(A) assist States in improving the rigor and quality of State academic content standards and assessments;

(B) ensure students are prepared to succeed in—

(i) academic credit-bearing coursework in higher education without the need for remediation;

(ii) the 21st century workforce; or

(iii) the Armed Forces; and

(3) to enable States to have valid and reliable information to inform education policy and practice.

(b) Definitions.—In this section:

(1) INSTITUTION OF HIGHER EDUCATION.—The term “institution of higher education” means the meaning given in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(2) P–16 EDUCATION.—The term “P–16 education” means the educational system from preschool through the conferring of a baccalaureate degree.

(3) STATEWIDE PARTNERSHIP.—The term “statewide partnership” means a partnership—

(A) that shall include—

(i) the Governor of the State or the designee of the Governor;

(ii) the State Board of Education or similar representative of the State educational agency serving, other States; and

(iii) the State official responsible for economic development, postsecondary education, the 21st century workforce, and the Armed Forces without the need for remediation;

(B) the waiver will best serve the purposes

(C) the activities described in subsection (c).

SEC. 4002. GRANTS AUTHORIZED—The Secretary is authorized to award grants to each State to enable each such State to establish or improve a statewide P–16 education data system that—

(1) involve preschool through grade 12 education, postsecondary education, the 21st century workforce, and the Armed Forces; and

(2) transcends any single system of education's ability to address; and

(i) identifying and describing the content

(ii) setting and standards, and assessments for students in

(iii) the Armed Forces; or

(iv) not less than 1 representative of a public elementary school teacher employed in the State; and

(v) not less than 1 public secondary school teacher employed in the State;

(vi) not less than 1 representative of the business community in the State; and

(vii) not less than 1 member of the Armed Forces; and

(i) the curriculum and assessments designed to ensure the enrollment of all elementary school and secondary school students in rigorous coursework, which may include—

(ii) developing and making available specific opportunities for extensive professional development for teachers, paraprofessionals, principals, and school administrators, including collection and dissemination of effective teaching practices to improve instruction and instructional support mechanisms;

(iii) identifying changes in State academic content standards, academic achievement data, and assessments in grades preceding secondary school in order to ensure such standards and assessments are appropriately aligned and adequately reflect the content needed to prepare students to enter secondary school;

(iv) developing a plan to provide remediation and additional learning opportunities for students who are performing below grade level to ensure that all students will have the opportunity to meet secondary school graduation requirements;

(v) not less than 1 member of the State official responsible for economic development; and

(vi) incorporating 21st century learning skills into the State plan, which skills shall include critical thinking, problem solving, communication, collaboration, global awareness, and business and financial literacy.

(2) GRANTS FOR STATEWIDE P–16 EDUCATION DATA SYSTEMS—

(A) Establishment of system.—Each State that receives a grant under subsection (c)(2) shall establish a statewide P–16 education longitudinal data system that—

(B) may include other individuals or representatives of other organizations, such as a school administrator; a faculty member at an institution of higher education, a member of a civic or community organization, a representative from a private institution of higher education, more than one similar representative of a school of education at an institution of higher education or a similar teacher certification or licensure program, or the State official responsible for economic development;

(C) GRANTS AUTHORIZED.—The Secretary is authorized to award grants, on a competitive basis, to States to enable each such State to work with a statewide partnership—

(i) to promote better alignment of content knowledge requirements for secondary school education with the knowledge and skills needed to succeed in postsecondary education, the 21st century workforce, or the Armed Forces; and

(ii) to establish or improve a statewide P–16 education data system.

(3) Period of grants.—Non-Renewable grant.

(A) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Non-Renewable grants.—The Secretary shall not award a State more than 1 grant under this section.

(C) Authorized activities.—

(i) Grants for P–16 Alignment.—Each State receiving a grant under subsection (c)(1) shall—

(A) shall use the grant funds for—

(i) identifying and describing the content knowledge and skills students who enter institutions of higher education, the work

(ii) and the Armed Forces need to have in order to succeed without any remediation based on detailed requirements obtained from institutions of higher education, employment, and the Armed Forces.

(i) identifying and making changes that need to be made to a State's secondary school graduation requirements, academic content standards, and assessments in grades preceding secondary school in order to align the requirements, standards, and assessments with the knowledge and skills necessary for success in academic credit-bearing coursework in postsecondary education, in the 21st century workforce, and the Armed Forces without the need for remediation;

(ii) convening stakeholders within the State and creating a forum for identifying and deliberating on education issues that—

(i) involve preschool through grade 12 education, postsecondary education, the 21st century workforce, and the Armed Forces; and

(i) developing or providing guidance to local education agencies within the State on the adoption of curricula and assessments aligned with State academic content standards, which assessments may be used as measures of student academic achievement in secondary school as well as for entrance or placement at institutions of higher education, including through collaboration with institutions of higher education in, or State educational agencies serving, other States; and

(B) use the grant funds for—

(i) developing and making available specific opportunities for extensive professional development for teachers, paraprofessionals, principals, and school administrators, including collection and dissemination of effective teaching practices to improve instruction and instructional support mechanisms;

(ii) identifying changes in State academic content standards, academic achievement data, and assessments in grades preceding secondary school in order to ensure such standards and assessments are appropriately aligned and adequately reflect the content needed to prepare students to enter secondary school;

(iii) developing a plan to provide remediation and additional learning opportunities for students who are performing below grade level to ensure that all students will have the opportunity to meet secondary school graduation requirements;

(iv) identifying and describing the content knowledge needs to succeed in postsecondary education, the 21st century workforce, or the Armed Forces;

(v) not less than 1 representative of a public elementary school teacher employed in the State; and

(vi) not less than 1 representative of the business community in the State; and

(vii) not less than 1 member of the Armed Forces; and

(B) may include other individuals or representatives of other organizations, such as a school administrator; a faculty member at an institution of higher education, a member of a civic or community organization, a representative from a private institution of higher education, more than one similar representative of a school of education at an institution of higher education or a similar teacher certification or licensure program, or the State official responsible for economic development; and

(c) Terms of grants.—Non-Renewable grant.

(A) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(ii) Period of grants.—Non-Renewable grants.

(A) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.

(i) Grant period.—The Secretary shall award a grant under this section for a period of not more than 3 years.

(B) Period of grants.—Non-Renewable grants.
Secretary of Education shall promulgate regulations governing the use by governmental and non-governmental entities of the unique identifiers employed in statewide P–16 education data systems, in order, where necessary, regulations requiring States desiring grants for statewide P–16 education data systems under this section to implement specific measures, with the goal of safeguarding individual privacy to the maximum extent practicable consistent with the uses of the information authorized in this Act or other Federal or State law regarding education.

(D) REQUIRED ELEMENTS OF A STATEWIDE P–16 EDUCATION DATA SYSTEM.—The State shall ensure that the statewide P–16 education data system includes the following elements:

1. Pre-School Through Grade 12 Education and Postsecondary Education.—With respect to preschool through grade 12 education and postsecondary education—
   (I) a unique statewide student identifier that does not permit a student to be individually identified by users of the system;
   (II) student-level enrollment, demographic, and program participation information;
   (III) information about the points at which students exit, transfer in, transfer out, drop out, or complete P–16 education programs;
   (IV) the ability to communicate with higher education data systems; and
   (V) a data audit system assessing data quality, validity, and reliability.

2. Recognition of Credit.—With respect to postsecondary education, data that provide—
   (a) yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b));
   (b) information on students not tested by grade and subject;
   (c) a teacher identifier system with the ability to match teachers to students;
   (d) student-level transcript information, including information on courses completed and grades earned; and
   (e) student-level college readiness test scores.

3. Postsecondary Education.—With respect to postsecondary education, data that provide—
   (a) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial courses;
   (b) other information determined necessary to align the system to other education data systems; and
   (c) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial courses.

(E) FUNCTIONS OF THE STATEWIDE P–16 EDUCATION DATA SYSTEM.—In implementing the statewide P–16 education data system, the State shall—

1. Identify factors that correlate to students’ ability to successfully engage in and complete the supervising school general education coursework without the need for prior developmental coursework;
2. Identify factors to increase the percentage of low-income and minority students who are academically prepared to enter and successfully complete postsecondary-level general education coursework; and
3. Use the data in the system to otherwise inform education policy and practice in order to better align State academic content standards, curricula, and the demands of postsecondary education in the 21st century workforce, and the Armed Forces.

(F) APPLICATION.—

1. In General.—Each State desiring a grant under this subsection shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may reasonably require.

2. Application Contents.—Each application submitted under this section shall specify—

(a) a description of the activities and programs to be carried out with the grant funds and a comprehensive plan for carrying out the activities; and

(b) a description of how the concerns and interests of the larger education community, including parents, students, teachers, teacher educators, principals, and pre-school administrators will be represented in carrying out the authorized activities described in subsection (e).

(C) In the case of a State applying for funding for P–16 education alignment, a description of how the State will provide assistance to local educational agencies in implementing rigorous State academic content standards, substantive curricula, remediation, and acceleration opportunities for students, as well as other changes determined necessary by the State.

(D) In the case of a State applying for funding to establish or improve a statewide P–16 education data system, a description of the privacy protection and enforcement measures that the State has implemented or will implement pursuant to section 1111(b)(1) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)); and

(E) Assurance of Appropriations.—There are authorized to be appropriated to carry out this section $100,000,000 for fiscal year 2008 and such sums as may be necessary for fiscal year 2009.

TITLE V—MATHEMATICS AND SCIENCE PARTNERSHIP BONUS GRANTS

SEC. 5501. MATHEMATICS AND SCIENCE PARTNERSHIP BONUS GRANTS.

(a) In General.—From amounts appropriated under subsection (d), the Secretary of Education shall award a grant—

1. for each of the school years 2007–2008 through 2010–2011, to each of the 3 elementary schools and each of the 3 secondary schools each of which has a high concentration of low income students as defined in section 1707(2) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6537(2)), in each State whose students demonstrate the most improvement in mathematics, as measured by the improvement in the students’ average score on the State’s assessments in mathematics for the school year for which the award is made, as compared to the prior school year for which the grant is awarded, and
(2) for each of the school years 2008–2009 through 2010–2011, to each of the 3 elementary schools and each of the 3 secondary schools each of which has a high concentration of students who demonstrate the highest improvement in science, as measured by the improvement in the students’ average score on the State’s assessments in science for the school year for which the grant is awarded, for each of such fiscal years, and an amount of $1,050,000,000 increased for each such fiscal year by an amount equal to the percentage increase in the appropriation for the National Science Foundation for such fiscal year above the amount appropriated to the National Science Foundation for fiscal year 2008.

SEC. 4003. GRADUATE FELLOWSHIPS AND GRADUATE TRAINEESHIPS.

(a) GRADUATE RESEARCH FELLOWSHIP PROGRAM.—

(1) IN GENERAL.—During the 4-year period beginning on the date of the enactment of this Act, the Director of the National Science Foundation shall expand the Graduate Research Fellowship Program of the National Science Foundation so that an additional 1,250 fellowships are awarded to citizens of the United States or eligible lawful permanent residents.

(b) INTEGRATIVE GRADUATE EDUCATION AND RESEARCH TRAINEESHIP PROGRAM.—

(1) IN GENERAL.—During the 4-year period beginning on the date of the enactment of this Act, the Director shall expand the Integrative Graduate Education and Research Traineeship Program of the National Science Foundation so that an additional 1,250 individuals who are citizens or nationals of the United States or eligible lawful permanent residents are awarded traineeships under the Program during that period.

(2) EXTENSION OF FELLOWSHIP PERIOD.—The Director is authorized to award fellowships under the Graduate Research Fellowship Program for a period of up to 5 years.

(3) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated, to provide additional fellowships under the Graduate Research Fellowship Program of the fiscal years 2008 through 2011, the following:

(A) $24,000,000,000 for fiscal year 2008.
(B) $36,000,000,000 for fiscal year 2009.
(C) $48,000,000,000 for fiscal year 2010.
(D) $60,000,000,000 for fiscal year 2011.

SEC. 4004. PROFESSIONAL SCIENCE MASTER’S DEGREE PROGRAMS.

(a) CLEARGINGHOUSE.—

(1) DEVELOPMENT.—The Director of the National Science Foundation shall establish a clearinghouse, in collaboration with 4-year institutions of higher education (including applicable graduate schools and academic departments, and industries and Federal agencies that employ science-trained personnel, to share program elements used in successful professional science master’s degree programs and other advanced degree programs related to science, mathematics, technology, and engineering.

(2) AVALABILITY.—The Director shall make the clearinghouse of program elements developed under paragraph (1) available to institutions of higher education that are developing professional science master’s degree programs.

(b) PROGRAMS AUTHORIZED.—The Director shall award grants to 4-year institutions of higher education to develop and enhance the development of professional science master’s degree programs.

(2) APPLICATION.—A 4-year institution of higher education desiring a grant under this section shall submit an application such time, in such manner, and accompanied by such information as the Director may require. The application shall include—

(A) a description of the professional science master’s degree program that the institution of higher education will implement; and

(B) an amount of funding from non-Federal sources, including from private industries, that the institution of higher education shall use to support the professional science master’s degree program; and

(C) an assurance that the institution of higher education shall encourage students in the professional science master’s degree program to apply for Federal assistance available to such students, including applicable graduate fellowships and student financial assistance.

SEC. 3502. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this section such sums for fiscal years 2008 through 2011.

SEC. 4001. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There are authorized to be appropriated—

(1) $6,729,000,000 for fiscal year 2008;
(2) $8,899,000,000 for fiscal year 2010; and
(3) $10,234,000,000 for fiscal year 2011.

(b) PLAN FOR INCREASED RESEARCH.—

(1) GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Director of the National Science Foundation, in consultation with the National Science Board, shall submit a comprehensive, multiyear plan that describes how the funds authorized in subsection (a) would be used, if appropriated, to the Committee on Appropriations of the Senate, the Committee on Health, Education, Labor, and Pensions of the Senate, and the Committee on Science of the House of Representatives.

(2) PLAN REQUIREMENTS.—The Director shall—

(A) develop the plan with a focus on strengthening the Nation’s lead in physical science and technology, increasing overall workforce skills in physical science, technology, engineering, and mathematics at all levels of education and industry, and in expanding the focus of competitiveness and innovation policy at the regional and local level; and

(B) emphasize spending increased research funds appropriated pursuant to subsection (a) in areas of investment for Federal research and technology programs identified under section 1101(c)(3) of this Act.

SEC. 4002. STRENGTHENING OF EDUCATION AND HUMAN RESOURCES DIRECTORATE THROUGH EQUITABLE DISTRIBUTION OF NEW FUNDS.

(a) PURPOSE.—The purpose of this section is to ensure the continued involvement of experts from the National Science Foundation in improving science, technology, engineering, and mathematics education at the elementary, secondary, and postsecondary level by providing annual funding increases for the education and human resources programs of the National Science Foundation that are proportional to the funding increases provided to the Foundation overall.

(b) EQUITABLE DISTRIBUTION OF NEW FUNDS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated, to fund enhanced education and human resources programs of the National Science Foundation for fiscal year 2008, $1,050,000,000, and, for each of the fiscal years 2009 through 2010, $1,050,000,000 increased for each such fiscal year by an amount equal to the percentage increase in the appropriation for the National Science Foundation for such fiscal year above the amount appropriated to the National Science Foundation for fiscal year 2008.

SEC. 4003. GRADUATE FELLOWSHIPS AND GRADUATE TRAINEESHIP PROGRAMS.

(a) GRADUATE RESEARCH FELLOWSHIP PROGRAM.—

(1) IN GENERAL.—During the 4-year period beginning on the date of the enactment of this Act, the Director of the National Science Foundation shall expand the Graduate Research Fellowship Program of the National Science Foundation so that an additional 1,250 fellowships are awarded to citizens of the United States or eligible lawful permanent residents under the Program during that period.

(2) EXTENSION OF FELLOWSHIP PERIOD.—The Director is authorized to award fellowships under the Graduate Research Fellowship Program for a period of up to 5 years.

(3) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated, to provide additional fellowships under the Graduate Research Fellowship Program of the fiscal years 2008 through 2011, the following:

(A) $24,000,000,000 for fiscal year 2008.
(B) $36,000,000,000 for fiscal year 2009.
(C) $48,000,000,000 for fiscal year 2010.
(D) $60,000,000,000 for fiscal year 2011.

(b) INTEGRATIVE GRADUATE EDUCATION AND RESEARCH TRAINEESHIP PROGRAM.—

(1) IN GENERAL.—During the 4-year period beginning on the date of the enactment of this Act, the Director shall expand the Integrative Graduate Education and Research Traineeship Program of the National Science Foundation so that an additional 1,250 individuals who are citizens or nationals of the United States or eligible lawful permanent residents are awarded traineeships under the Program during that period.

(2) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated, to provide additional individuals under the Integrative Graduate Education and Research Traineeship Program of the National Science Foundation for fiscal years 2008 through 2011, the following:

(A) $22,000,000,000 for fiscal year 2008.
(B) $33,000,000,000 for fiscal year 2009.
(C) $44,000,000,000 for fiscal year 2010.
(D) $55,000,000,000 for fiscal year 2011.

(c) DEFINITION OF ELIGIBLE LAWFUL PERMANENT RESIDENT.—In this section, the term ‘eligible lawful permanent resident’ means a lawful permanent resident of the United States who declares an intent—

(1) to apply for United States citizenship; or

(2) to reside in the United States for not less than 5 years after the completion of a graduate fellowship or traineeship awarded under this section.

SEC. 4004. PROFESSIONAL SCIENCE MASTER’S DEGREE PROGRAMS.

(a) CLEARGINGHOUSE.—

(1) DEVELOPMENT.—The Director of the National Science Foundation shall establish a clearinghouse, in collaboration with 4-year institutions of higher education (including applicable graduate schools and academic departments), and industries and Federal agencies that employ science-trained personnel, to share program elements used in successful professional science master’s degree programs and other advanced degree programs related to science, mathematics, technology, and engineering.

(2) AVALABILITY.—The Director shall make the clearinghouse of program elements developed under paragraph (1) available to institutions of higher education that are developing professional science master’s degree programs.

(b) PROGRAMS AUTHORIZED.—The Director shall award grants to 4-year institutions of higher education to develop and enhance the development of professional science master’s degree programs.

(2) APPLICATION.—A 4-year institution of higher education desiring a grant under this section shall submit an application such time, in such manner, and accompanied by such information as the Director may require. The application shall include—

(A) a description of the professional science master’s degree program that the institution of higher education will implement; and

(B) an amount of funding from non-Federal sources, including from private industries, that the institution of higher education shall use to support the professional science master’s degree program; and

(C) an assurance that the institution of higher education shall encourage students in the professional science master’s degree program to apply for Federal assistance available to such students, including applicable graduate fellowships and student financial assistance.

SEC. 3502. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this section such sums for fiscal years 2008 through 2011.
(C) REPORT.—Not later than 180 days after the completion of an evaluation described in subparagraph (B), the Director shall submit a report to Congress that includes—
(i) the results of each evaluation described in subparagraph (B); and
(ii) recommendations for administrative and legislative action that could optimize the effectiveness of the pilot programs as the Director determines to be appropriate.

(c) INSTITUTION OF HIGHER EDUCATION DEFINED.—In this section, the term ‘‘institution of higher education’’ includes the National Science Foundation.

(d) APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated—

SEC. 4005. INCREASED SUPPORT FOR SCIENCE EDUCATION THROUGH THE NATIONAL SCIENCE FOUNDATION.

(a) IN GENERAL.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated to carry out the science, mathematics, engineering, and technology (S.M.E.T.) education, training, and research under section 94 of the Higher Education Act of 1965 (20 U.S.C. 1066), to be used for grants for the purpose of carrying out this section—

SEC. 4006. MEETING CRITICAL NATIONAL SCIENCE NEEDS.

(a) IN GENERAL.—In addition to any other criteria, the Director of the National Science Foundation shall include consideration of the degree to which awards and research activities that otherwise qualify for support by the National Science Foundation may assist in meeting critical national needs in innovation in the United States; and

SEC. 4007. REAFFIRMATION OF THE MERIT-REVIEW PROCESS OF THE NATIONAL SCIENCE FOUNDATION.

(a) AWARD.—The Director shall give priority in the selection of awards and the allocation of National Science Foundation resources to proposed research activities, and grants funded under the National Science Foundation's Research and Related High Activities Account, that can be expected to make contributions in physical or natural science, technology, engineering, or mathematics, or contribute to enhancing or facilitating the availability and affordability of advanced communications services to all people of the United States; and

SEC. 4008. EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH.

SEC. 4009. ENCOURAGING PARTICIPATION.

(a) MENTORING PROGRAM.—The Director of the National Science Foundation shall establish a program to recruit and provide mentors for women who are interested in careers in science, technology, engineering, and mathematics by pairing such women who are desiring a grant under this section shall submit an application to such at time, in such manner, and accompanied by such information as the Director may require.

(b) ADDITIONAL LEARNING PROGRAM.—The Director shall also establish a program to provide additional learning and other appropriate training to allow women to enter higher-paying technical jobs in fields related to science, technology, engineering, or mathematics.

(c) APPLICATIONS.—An institution of higher education, including a community college, desiring a grant under this section shall submit an application at such time, in such manner, and accompanied by such information as the Director may require.

(d) PROGRAM EVALUATION.—The Director shall establish metrics to evaluate the success of the programs established under subsections (a) and (b); and support the findings and conclusions of the evaluations annually to Congress.
education (as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)), nonprofit research institutions affiliated with institutions of higher education, organizations of college and university presidents, national or regional bodies of educational institutions, professional associations, and interdisciplinary centers for communications research. The purpose of the Centers shall be to generate innovative approaches to problems in communications and information technology research, including the research areas described in paragraph (3). Institutions of higher education, nonprofit research institutions affiliated with institutions of higher education, or consortia receiving grants may partner with 1 or more for-profit entities, or other institutions of higher education or nonprofit research institutions.

(5) APPLICATIONS.—The Director of the National Institute of Standards and Technology, in consultation with the Board, shall establish criteria for the award of grants under paragraphs (3) and (4). Such grants shall be awarded under the programs on a merit-reviewed competitive basis. The Director shall give priority to grants that offer the potential for revolutionary rather than evolutionary breakthroughs.

(6) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated to the National Science Foundation to carry out this subsection—

(A) $45,000,000 for fiscal year 2008;
(B) $50,000,000 for fiscal year 2009;
(C) $55,000,000 for fiscal year 2010; and
(D) $60,000,000 for fiscal year 2011.

(b) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY RESPONSIBILITIES.—The Director of the National Institute of Standards and Technology shall continue to support research and support standards development in advanced information and communication technologies focused on enhancing or facilitating the availability and affordability of advanced communications services to all people of the United States, in order to implement the Institute's responsibilities under section 2(c)(12) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)(12)). The Director shall support intramural research and cooperative research with institutions of higher education (as defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)) and industry.

SEC. 4012. ROBERT NOYCE TEACHER PROGRAM.

(a) In general. The National Science Foundation, in consultation with the Board, shall establish criteria for the award of grants under subsection (a) that are targeted to the education of mathematics, science, or engineering faculty and its education faculty have worked or will work collaboratively to design new or
revised curricula that recognize the specialized pedagogy required to teach mathematics and science effectively in elementary schools and secondary schools; and

(iii) in subparagraph (D) (as redesignated by clause (i)), by striking “or stipend” and inserting “, stipend, or fellowship”;

(4) in subsection (c)—

(A) in paragraph (1)—

(i) by striking “$7,500” and inserting “$10,000”; and

(ii) by striking “of scholarship support” and inserting “scholarship, stipend, and fellowship support”, unless the Director establishes a policy by which part-time students may receive additional years of support; and

(B) in paragraph (4), by inserting “with a maximum service requirement of 4 years” after “scholarship was received”; and

(5) in subsection (d)—

(A) by striking paragraph (1) and inserting the following:

“(1) In General.—Stipends under this section shall be available only to—

(A) teachers enrolled in a master’s degree program in science, technology, engineering, or mathematics; and

(B) mathematics, science, or engineering professionals who, while receiving the stipend, are enrolled in a program to receive certification or licensing to teach.”;

(B) in paragraph (3), by inserting “, except that if an individual is enrolled in a part-time program, stipend shall be prorated according to the length of the program” after “stipend support”; and

(C) in paragraph (4), by striking “for each year a stipend was received”;

(6) by redesignating subsections (e) through (h) and subsection (i) as subsections (f) through (i) and subsection (i), respectively;

(7) by inserting after subsection (d) the following:

“(e) National Science Foundation Teaching Fellowships.—

(1) Purpose.—The purpose of the fellowships under this subsection is to promote and recognize high-level achievement in advanced mathematics and science teaching.

(2) Partnership Requirements.—In order to receive a fellowship under this section to carry out this subsection, the recipient of such grant shall be a partnership and the only local educational agencies that shall be members of the partnership shall be local educational agencies that agree not to reduce the base salary normally paid to an individual solely because such individual receives a salary supplement under this subsection.

(3) General Criteria.—A partnership receiving a grant to carry out a fellowship program under this section shall award such fellowships only to—

(A) mathematics, science, or engineering professionals who, while enrolled in a 1-year master’s degree program in teaching that result in teacher certification or licensing and who shall be referred to as ‘NSF Teaching Fellows’; and

(B) mathematics and science teachers who possess a master’s degree in their field and who shall be referred to as ‘NSF Master Teaching Fellows’.

(4) Selection.—Individuals shall be selected to receive fellowships under this section primarily on the basis of—

(A) professional achievement;

(B) academic merit;

(C) demonstrated advanced content knowledge; and

(D) in the case of NSF Master Teaching Fellowships, excellence in improving student academic achievement in mathematics, science, technology, or engineering.

(5) Use of Funds.—Each partnership receiving a grant under this section to award fellowships under this subsection shall—

(A) provide a stipend to each NSF Teaching Fellow for the duration of the Fellow’s enrollment in the master’s degree program, to be used to offset the cost of tuition, fees, and living expenses; and

(B) provide supplements to each NSF Teaching Fellow and NSF Master Teaching Fellow during the period of the Fellow’s service obligation under paragraph (4).

(6) Service Obligation.—If an individual is awarded a fellowship under this subsection, that individual shall be required to serve in a high-need local educational agency for—

(A) in the case of a NSF Teaching Fellow, 4 years; and

(B) in the case of a NSF Master Teaching Fellow, 5 years.

(7) Duties.—A recipient of a fellowship under this section, during the service obligation required under paragraph (6) and in addition to regular classroom activities, shall take on a leadership role within the school or educational service agency in which the recipient is employed, as defined by the partnership according to the recipient’s expertise, including serving as a mentor or master teacher, and assisting in the development and implementation of professional development activities; and

(B) in subsection (f) (as redesignated by paragraph (6))—

(A) by striking paragraph (1) and inserting the following:

“(1) accepting—

(A) the terms of the scholarship pursuant to subsection (c), the stipend pursuant to subsection (d), or the fellowship pursuant to subsection (i); and

(B) the terms regarding the failure to complete a service obligation required for the scholarship, stipend, or fellowship pursuant to subsection (i); and

(B) by striking “scholarship and stipend” and inserting “scholarship, stipend, and fellowship”;

(2) in subsection (g)(1) (as redesignated by paragraph (6))—

(A) by striking “(or consortium thereof)” and inserting “, consortium, or partnership”; and

(B) by striking “scholarship and stipend” and inserting “scholarship, stipend, and fellowship”;

(3) in subsection (h) (as redesignated by paragraph (6))—

(A) in paragraph (1)—

(i) in the matter preceding subparagraph (A), by inserting “, stipend, or fellowship” after “scholarship”;

(ii) in subparagraph (C), by striking “bac-

calaureate degree”; and

(B) by striking paragraph (2) and inserting the following:

“(2) Repayment for Failure to Complete Service.—

(A) Less Than 1 Year of Service.—If a circumstance described in paragraph (1) occurs before the completion of 1 year of a service obligation under this section, the sum of the total amount of awards received by the individual under this section shall be treated as a loan payable to the Federal Government, consistent with the provisions of part B or D of title IV of the Higher Education Act of 1965, and shall be subject to repayment in accordance with terms and conditions specified by the Secretary of Education in regulations promulgated to carry out this paragraph.

(B) 1 Year or More of Service.—If a circum-

stance described in paragraph (D) or (E) of paragraph (1) occurs after the completion of 1 year of a service obligation under this section, an amount equal to 1⁄2 of the sum of the total amount of awards received by the individual under this section shall be treated as a loan payable to the Federal Government, consistent with the provisions of part B or D of title IV of the Higher Education Act of 1965, and shall be subject to repayment in accordance with terms and conditions specified by the Secretary of Education in regulations promulgated to carry out this paragraph.

(11) in subsection (i) (as redesignated by paragraph (6))—

(A) by striking “or consortia” and inserting “, consortium, or partnership”;

(B) by striking “scholarship recipients and stipend recipients” and inserting “scholarship, stipend, and fellowship recipients”; and

(C) by striking “subsection (e)” and inserting “subsection (f)”;

(12) by inserting after subsection (i) (as redesignated by paragraph (6)) the following:

“(j) Science and Mathematics Scholarship Gift Fund.—In accordance with section 11(f) of the National Science Foundation Act of 1950, the Director is authorized to accept donations from the private sector to supplement, but not supplant, scholarships, stipends, internships, and fellowships associated with the programs under this section.

“(k) Assessment of Teacher Retention.—Not later than 4 years after the date of enactment of the America COMPETES Act, the Director shall transmit to Congress a report on the effectiveness of the program carried out under this section regarding the reten-

tion of participants in the teaching profes-

sion beyond the service obligation required under this section.”;

(13) in subsection (i) (as redesignated by paragraph (6))—

(A) by redesigning paragraphs (1), (2), (3), (4), and (5) as paragraphs (2), (5), (7), (9), and (10), respectively;

(B) by inserting before paragraph (2) (as re-

designated by subparagraph (A)) the fol-

lowing:

“(1) the term ‘advanced content knowledge’ means demonstrated mathematics or science content knowledge as measured by a rigorous, valid assessment tool that has been approved by the Director;”;

(C) by inserting after paragraph (2) (as re-

designated by subparagraph (A)) the fol-

lowing:

“(3) the term ‘fellowship’ means an award under subsection (e); the term ‘high-need local educational agency’ means a local educational agency or educational service agency (as defined in section 9101 of the Elementary and Secondary Education Act of 1965) that serves not less than 10,000 children from low-income families; and

“(iii) with a total of less than 600 students in average daily attendance at the schools that are served by the agency, and all of whose schools are designated with a school locale code of 6, 7, or 8, as determined by the Secretary of Education; and

(14) in paragraph (2) (as redesignated by subparagraph (A)) the following:

“(A) that serves not less than 10,000 children from low-income families; and

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

(iii) with a total of less than 600 students in average daily attendance at the schools that are served by the agency, and all of whose schools are designated with a school locale code of 6, 7, or 8, as determined by the Secretary of Education; and

(E) in subparagraph (A), by inserting “engineering,” after “mathematics, science,”;
(E) by inserting after paragraph (5) (as redesignated by subparagraph (A)) the following:

“(6) the term ‘mathematics and science teaching’ means mathematics, science, engineering, or technology teaching at the elementary or secondary school level;”;

(F) in paragraph (7) (as redesignated by subparagraph (A)) by inserting “or had a career” after “is working”;

(G) by inserting after paragraph (7) (as redesignated by subparagraph (A)) the following:

“(8) the term ‘partnership’ means a partnership that shall include—

“(A) an institution of higher education or a consortium of such institutions;

“(B) a Department within an institution of higher education participating in the partnership that provides an advanced program of study in mathematics and science;

“(C) an institution of higher education participating in the partnership;

“(D) not less than 1 high-need local educational agency and a public school or a consortium of public schools served by the agency;

“(E) 1 or more nonprofit organizations that have the capacity to provide expertise or support to meet the purposes of this section;” and

(14) by adding at the end the following:

“(m) AUTHORIZATION OF APPROPRIATIONS.—

“(1) IN GENERAL.—Within the amounts authorized to be appropriated by section 4001 of the America COMPETES Act and except as provided in paragraph (2), there are authorized to be appropriated to the Director for the Robert Noyce Teacher Program under this section—

“(A) $117,000,000 for fiscal year 2008, of which at least $18,000,000 shall be used for capacity building activities described in clause (i) of subsection (a)(3)(A), clauses (ii) and (iii) of subsection (a)(3)(B), and clauses (ii) and (iii) of subsection (a)(3)(C);

“(B) $130,000,000 for fiscal year 2009, of which at least $21,000,000 shall be used for such capacity building activities;

“(C) $148,000,000 for fiscal year 2010, of which at least $23,000,000 shall be used for such capacity building activities; and

“(D) $200,000,000 for fiscal year 2011, of which at least $27,000,000 shall be used for such capacity building activities.

“(2) EXCEPTION.—For any fiscal year for which the funding allocated for activities under this section is less than $165,000,000, the amount that is available for capacity building activities described in subparagraphs (A) through (D) of paragraph (1) shall not exceed 15 percent of the allocated funds.

(b) CONFORMING AMENDMENTS.—

(1) SECTION 4.—Section 4 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n note) is amended in the matter of subparagraph (A) by inserting “In this Act” and inserting “Except as otherwise provided, in this Act:’.’.

(2) SECTION 8.—Section 8(a)(6) of the National Science Foundation Authorization Act of 2002 (Public Law 107–368) is amended—

(A) in the paragraph heading, by striking “Scholarship” and inserting “Teacher”, and

(B) by striking “Scholarship” and inserting “Teacher”.


It is the sense of the Senate that—

“(1) although the mathematics and science education partnership program at the National Science Foundation and the mathematics and science education program at the Department of Education practically share the same name, the 2 programs are intended to be complementary, not duplicative;

“(2) the National Science Foundation partnership programs are innovative, model reform initiatives that move promising ideas in education from research into practice to improve teacher quality, develop challenging curricula, and increase student achievement in mathematics and science, and Congress intends that the National Science Foundation peer-reviewed partnership programs found to be effective should be put into wider practice;

“(3) the Director of the National Science Foundation and the Secretary of Education should have ongoing collaboration to ensure that the 2 components of this priority effort for mathematics and science education continue to work in concert for the benefit of States and local practitioners nationwide.

SEC. 4014. NATIONAL SCIENCE FOUNDATION TEACHER INSTITUTES FOR THE 21ST CENTURY.

(a) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated to carry out the teacher institutes for the 21st century under paragraphs (3) and (7) of section 9(a) of the National Science Foundation Authorization Act of 2002 (as amended by subsection (b)) (42 U.S.C. 1862n(a))—

“(1) $81,000,000 for fiscal year 2009;

“(2) $94,000,000 for fiscal year 2010; and

“(3) $106,000,000 for fiscal year 2011.

(b) TEACHER INSTITUTES FOR THE 21ST CENTURY.—

“(1) IN GENERAL.—Within the amounts authorized to be appropriated by paragraph (1), there are authorized to be appropriated to the Director—

“(i) $1,000,000 for the 21st century; and

“(ii) the amount appropriated to the Director for the 21st century to carry out a pilot program designated as ‘Partnerships for Access to Laboratory Science’ to award grants to partnerships to develop a theme and structure for the teacher institutes for the 21st century supported under paragraph (3) that are relevant to teaching the subject and content on which teachers are being trained, which may include training in the essential components of reading instruction for adolescents in order to improve student reading skills within the subject areas of mathematics, technology, engineering, and mathematics;

“(vii) be a multiyear program that is conducted for a period of not less than 2 weeks per year;

“(viii) provide for direct interaction between participants in and faculty of the teacher institute;

“(ix) be a component that includes the use of the Internet;

“(x) provide for followup training in the classroom during the academic year for a period of not less than 3 days, which may or may not be consecutive, for participants in the teacher institute, except that for teachers in rural local educational agencies, the followup training may be provided through the Internet;

“(xi) provide teachers participating in the teacher institute with travel expense reimbursement and classroom materials related to the teacher institute, and may include providing stipends as necessary; and

“(xii) establish a mechanism to provide supplemental support for the academic year for teacher institute participants to apply the knowledge and skills gained at the teacher institute.

(c) OPTIONAL MEMBERS OF THE PARTNERSHIP.—In addition to the partnership requirement under paragraph (2), an institution of higher education or eligible nonprofit organization (or consortium) desiring a grant for a teacher institute for the 21st century may also partner with a teacher organization, museum, or educational partnership organization.

“(C) THEME AND STRUCTURE.—Each year, not later than 180 days before the application deadline for a grant under this section, the Director, shall, in consultation with a broad group of relevant education organizations, develop a theme and structure for the teacher institutes of the 21st century supported under paragraph (3).

SEC. 4015. PARTNERSHIPS FOR ACCESS TO LABORATORY SCIENCE.

(a) GRANT PROGRAM.—Section 8(b) of the National Science Foundation Authorization Act of 2002 (Public Law 107–368) is amended—

“(1) by redesignating subparagraphs (A) through (F) as clauses (i) through (vi), respectively, and inserting appropriately;

“(2) by moving the flush language at the end of the line 2 ems to the right;

“(3) in the flush language at the end of the line, by striking ‘paragraph’ and inserting ‘subparagraph’;

“(4) by striking ‘INITIATIVE.—A program of’ and inserting ‘the program of’;

“(A) IN GENERAL.—A program of;

“(B) PILOT PROGRAM.—

“(1) TEACHER INSTITUTES FOR THE 21ST CENTURY.—

“(A) IN GENERAL.—Teacher institutes for the 21st century carried out in accordance with paragraph (3)(B) shall—

“(i) be carried out in conjunction with a school served by the local educational agency in the partnership;

“(ii) serve teachers who are considered highly qualified (as defined in section 9101 of the Elementary and Secondary Education Act of 1965), teach high-need subjects, and teach in high-need schools (as described in section 1111(a)(1) of the Elementary and Secondary Education Act of 1965);

“(iii) serve teachers who are not considered highly qualified and who teach in high-need schools (as described in section 1111(a)(1) of the Elementary and Secondary Education Act of 1965);

“(iv) develop a theme and structure developed by the Director under subparagraph (C);

“(v) be content-based and build on school year curricula that are experiment-oriented, content-based, and grounded in current research;
(II) acquire appropriate nanotechnology equipment and software designed for teaching students about nanotechnology in the classroom;

(III) professional development and training for teachers aligned with activities supported under section 2123 of the ESEA of 1965;

(IV) development of instructional programs designed to integrate the laboratory experience with classroom instruction and to be consistent with State mathematics and science standards, to the extent applicable, in technology and engineering, academic achievement standards;

(V) training in laboratory safety for relevant staff;

(VI) design and implementation of hands-on laboratory experiences to encourage the interest of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in mathematics, science, engineering, and technology and help prepare such individuals to pursue postsecondary studies in these fields; and

(VII) assessment of the activities funded under this subparagraph.

(iii) Development Grants awarded under clause (i) shall be to a partnership that—

(I) includes an institution of higher education or a community college;

(II) includes a high-need local educational agency;

(III) includes a business or eligible nonprofit organization; and

(IV) the entity is a State educational agency, other public agency, National Laboratory, or community-based organization.

(iv) FEDERAL SHARE.—The Federal share of the cost of activities carried out using amounts from a grant under clause (i) shall not exceed 30 percent.

(b) the President of the National Science Foundation shall evaluate the effectiveness of activities carried out under the pilot projects funded by the grant program established pursuant to the amendment made by subsection (b) in improving student performance in mathematics, science, engineering, and technology and recommend whether such activities should continue. A report documenting the results of that evaluation shall be submitted to the Committee on Commerce, Science, and Transportation and the Committee on Health, Education, Labor, and Pensions of the Senate and the Committee on Science and Technology of the House of Representatives not later than 3 years after the date of enactment of this Act. The report shall identify best practices and materials for the classroom developed and demonstrated by grant awardees.

(c) SUNSET.—The provisions of this section shall cease to have force or effect at the beginning of fiscal year 2012.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation to carry out the amendment made by this section such sums for fiscal year 2008 and each of the 3 succeeding fiscal years.

DIVISION E—GENERAL PROVISIONS

SEC. 5001. COLLECTION OF DATA RELATING TO TRADING YEAR 2012.

(a) In general.—Not later than 90 days after the date of enactment of this Act, the Secretary shall establish and carry out a program within the Bureau of Economic Analysis to collect and study data relating to export and import of services. As part of the program established under this section, the Secretary shall—

(1) provide data collection and analysis relating to export and import of services;

(2) collect and analyze data for service imports and exports in not less than 40 service industry categories, on a state-by-state basis;

(3) include data collection and analysis of the employment effects of exports and imports on the service industry; and

(4) integrate ongoing and planned data collection and analysis in support of research and development and innovation.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Department of Commerce such sums for each of the fiscal years 2008, 2009, 2010, 2011, 2012, to carry out the provisions of this section.

SEC. 5002. SENSE OF THE SENATE REGARDING SMALL BUSINESS GROWTH AND CAPITAL MARKETS.

(a) FINDINGS.—The Congress finds that—

(I) the United States has the most fair, most transparent, and most efficient capital markets in the world due to its strong securities statutory and regulatory scheme;

(II) it is of paramount importance for the continued growth of our Nation’s economy that our capital markets retain their leading position in the world;

(III) small businesses are vital participants in United States capital markets, and play a critical role in future economic growth and high-wage job creation;

(IV) section 409 of the Sarbanes-Oxley Act of 2002, has greatly enhanced the quality of corporate governance and financial reporting for public companies and increased investor confidence;

(V) the Securities and Exchange Commission (in this section referred to as the ‘‘Commission’’) and the Public Company Accounting Oversight Board (in this section referred to as the ‘‘PCAOB’’) have both determined that the current auditing standard implementing section 404 of the Sarbanes-Oxley Act of 2002 has imposed unnecessary and unintended cost burdens on small and mid-sized public companies;

(VI) the Commission and PCAOB are now near completion of a 2-year process intended to revise the standard in order to provide more efficient and effective regulation; and

(VII) the chairman of the Commission recently has said, with respect to section 404 of the Sarbanes-Oxley Act of 2002, that, ‘‘We don’t need to change the law, we need to change the way the law is implemented. It is not the law that has caused the excessive burden, not the law itself. That’s an important distinction. I have not been in support of an exemption or other type of protection, which are even now only a few years old, should be opened up for amendment, or that they need to be.’’;

(b) SENSE OF THE SENATE.—It is the sense of the Senate that and the PCAOB should complete promulgation of the final rules implementing section 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7292).

SEC. 5003. GOVERNMENT ACCOUNTABILITY OFFICE REVIEW OF ACTIVITIES, GRANTS, AND PROGRAMS.

Not later than 3 years after the date of enactment of this Act, the Comptroller General of the United States shall submit a report to Congress that—

(1) examines each annual and interim report required to be submitted to Congress under this Act (including any amendment made by this Act);

(2) assesses or evaluates assessments of the effectiveness of the new or expended activities, grants, and programs under this Act (including any amendment made by this Act); and

(3) includes any recommendations as the Comptroller General determines appropriate to improve the effectiveness of such activities, grants, and programs.

SEC. 5004. PROHIBITION AGAINST FUNDING ANTI- TRUST ACTIVITIES.

Notwithstanding any other provision of the Law, no federal funds shall be provided to any organization or entity that advocates against tax competition or United States tax competitiveness.

Provided, however, that advocating for effective tax information exchange, advocating for effective transfer pricing, and advocating for income tax treaties is not considered to be advocating against tax competition or United States tax competitiveness.

SEC. 5005. FEASIBILITY STUDY ON FREE ONLINE COLLEGE DEGREE PROGRAM.

(a) In general.—Not later than 90 days after the date of enactment of this Act, the Secretary of Commerce shall enter into a contract with the National Academy of Sciences to conduct a feasibility study on creating a national, free online college degree program that would be available to all individuals described under section 484(a)(5) of the Higher Education Act of 1965 (20 U.S.C. 1091(a)(5)) who wish to pursue a degree in a field of strategic importance to the United States and where expertise is in demand, such as mathematics, sciences, and foreign languages.

SEC. 5006. SENSE OF THE SENATE REGARDING DEEMED EXPORTS.

It is the sense of the Senate that—

(1) United States government policies related to deemed exports should safeguard United States national security and protect financial stability; and

(2) the Department of Commerce has established the Deemed Export Advisory Committee to develop recommendations for improved upstream controls on deemed exports.

(3) The Administration and Congress should consider the recommendations of the Deemed Export Advisory Committee in its development and implementation of export control policies.

SEC. 5007. SENSE OF THE SENATE REGARDING CAPITOL MARKETS.

(a) FINDINGS.—The Senate finds that—

(1) United States capital markets are losing their competitive edge in the face of intensifying global competition, posing a risk to the US's economic growth, a problem that is well-documented in initial public offerings (IPO), over-the-counter (OTC) derivatives, securitization, and traditional lending;

(2) according to the Senator Charles E. Schumer and Mayor Michael R. Bloomberg report, entitled ‘‘Sustaining New York’s and the US’s Global Financial Services Leadership’’, ‘‘in looking at several of the critical contested investment banking and sales and trading markets—initial public offerings (IPOs), over-the-counter (OTC) derivatives, and debt securitization—the US’s Global Financial Services Leadership position of the US goes beyond this natural market evolution to more controllable, intrinsic issues of US competitiveness. As market effects, foreign regulatory frameworks become more prevalent in the world’s financial markets, the competitive arena for financial
services is shifting toward a new set of factors—like availability of skilled people and a balanced and effective legal and regulatory environment—where the US is moving in the wrong direction.

(3) further, the report referred to in paragraph (2) stated that—

(A) ‘‘The IPO market also offers the most dramatic feature of the changes in the capital-raising needs around the world, and US exchanges are rapidly losing ground to foreign rivals. When looking at all IPOs that took place globally in 2006, the share of IPO volume attracted by US exchanges is barely one-third of that captured in 2001. By contrast, the global share of IPO volume captured by European exchanges has expanded by more than 30 percent over the same period, while non-Japan Asian markets have doubled their equivalent market share since 2001. When one considers mega-IPOs—those over $1 billion—US exchanges attracted 57 percent of such transactions in 2001, compared with just 16 percent during the first ten months of 2006.’’; and

(B) ‘‘London already enjoys clear leadership in the fast-growing and innovative over-the-counter (OTC) derivatives market. This is significant because of the trading flow that surrounds derivatives markets and because of the innovation these markets drive, both each other and competitive factors for financial centers. Dealers and investors increasingly see derivatives and cash markets as interchangeable and are performing bundling and option strategies for both products. Indeed, the derivatives markets can be more liquid than the underlying cash markets. Therefore, as London takes the global lead in derivatives, America’s competitiveness in both cash and derivatives flow trading is at risk, as is its position as a center for financial innovation.’’

(4) on March 13, 2007, the Department of the Treasury convened a conference on United States capital markets competitiveness, where:

(A) key policymakers, consumer advocates, members of the international community, business representatives, and academic experts, each with different perspectives, discussed ways to keep United States capital markets the strongest and most innovative in the world; and

(b) conclude that regulators examined the impact of the United States regulatory structure and philosophy, the legal and corporate governance environment, and the auditing professional reporting and oversight of United States capital markets competitiveness;

(5) the foundation of any competitive capital market is investor confidence, and since1990, the United States has required some of the most extensive financial disclosures, supported by one of the most robust enforcement regimes in the world;

(6) a balanced regulatory system is essential to protecting investors and the efficient functioning of capital markets; and

(7) too much regulation stifles entrepreneurialism, innovation, and too little regulation creates excessive risk to industry, investors, and the overall system.

a. Senate of the Senate—It is the sense of the Senate that—

(1) Congress, the President, regulators, industry leaders, and other stakeholders should take the necessary steps to retain the preeminent position of the United States in the global financial services marketplace;

(2) the Federal and State financial regulatory agencies should to the maximum extent possible, coordinate activities on significant policy matters, so as not to impose regulations that may have adverse unintended consequences on innovative activities with respect to financial products, instruments, and services, or that impose regulatory costs that are disproportionate to their benefits, and, at the same time, ensure that the regulatory framework overseeing the United States capital markets continues to promote and protect the interests of investors in those markets; and

(3) given the complexity of the financial services marketplace today, Congress should exercise vigorous oversight over Federal regulatory and statutory requirements affecting the financial services industry and consumers, with the goal of eliminating excessive and problematic implementation of existing laws and regulations, while ensuring that necessary investor protections are not compromised.

EXECUTIVE SESSION

EXECUTIVE CALENDAR

Mr. REID. Mr. President, I ask unanimous consent that the Senate proceed to executive session to consider Executive Calendar Nos. 86 through 102 and all matters incident thereto placed on the Secretary’s desk; that the nominations be confirmed, the motions to reconsider be laid upon the table, the President be immediately notified of the Senate’s action, and the Senate then return to legislative session.

The PRESIDING OFFICER. Without objection, it is so ordered.

The nominations considered and confirmed are as follows:

DEPARTMENT OF JUSTICE

John Roberts Hackman, of Virginia, to be United States Marshal for the Eastern District of Virginia for the term of four years.

Robert Gideon Howard, Jr., of Arkansas, to be United States Marshal for the Eastern District of Arkansas for the term of four years.

IN THE AIR FORCE

The following Air National Guard of the United States officer for appointment in the Reserve of the Air Force to the grade indicated under title 10, U.S.C., section 12203:

To be brigadier general

Colonel Travis D. Balch, 0000

IN THE ARMY

The following named officer for appointment in the United States Army to the grade indicated under title 10, U.S.C., section 12203:

To be brigadier general

Col. Stephen L. Jones, 0000

IN THE AIR FORCE

The following named officer for appointment in the United States Air Force to the grade indicated under title 10, U.S.C., section 624:

To be brigadier general

Col. Thomas J. Masiello, 0000

The following Air National Guard of the United States officer for appointment in the Reserve of the Air Force to the grade indicated under title 10, U.S.C., section 624:

To be brigadier general

Brig. Gen. Thaddeus J. Martin, 0000

IN THE ARMY

The following named officer for appointment in the Reserve of the Army to the grade indicated under title 10, U.S.C., section 12203:

To be brigadier general

Col. Gregory E. Couch, 0000

IN THE NAVY

The following named officer for appointment in the United States Navy to the grade indicated while assigned to a position of importance and responsibility under title 10, U.S.C., section 601:

To be vice admiral

Rear Adm. Jeffrey L. Fowler, 0000

IN THE MARINE CORPS

The following named officer for appointment in the United States Marine Corps to the grade indicated while assigned to a position of importance and responsibility under title 10, U.S.C., section 601:

To be lieutenant general

Lt. Gen. Martin E. Dempsey, 0000

The following named officer for appointment in the Reserve of the Army to the grade indicated under title 10, U.S.C., Sec-