

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. 462, 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.

## SUBCOMMITTEE 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 3 p.m., in open session to receive testimony on Air Force and Navy Aviation in review of the defense authorization request for fiscal year 2008 and the future years defense program.

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

SUBCOMMITTEE ON EMPLOYMENT AND  
WORKPLACE SAFETY

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Subcommittee on Employment and Workplace Safety, be authorized to hold a hearing on OSHA during the session of the Senate on Thursday, April 26, 2007 at 10 a.m. in SD-628.

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

## SUBCOMMITTEE ON NATIONAL PARKS

Mrs. MURRAY. Mr. President, I ask unanimous consent that the Subcommittee on National Parks be authorized to hold a hearing during the session of the Senate on Thursday, April 26th, 2007 at 2:30 p.m. in room SD-

366 of the Dirksen Senate Office Building.

The purpose of the hearing is to receive testimony on the following bills: S. 169, to amend the National Trails System Act to clarify Federal authority relating to land acquisition from willing sellers for the majority of the trails in the System; S. 312/H.R. 497, to authorize the Marion Park Project and Committee of the Palmetto Conservation Foundation to establish a commemorative work on Federal land in the District of Columbia and its environs to honor Brigadier General Francis Marion; S. 580, to amend the National Trails System Act to require the Secretary of the Interior to update the feasibility and suitability studies of four national historic trails; S. 686, to amend the National Trails System Act to designate the Washington-Rochambeau Revolutionary Route National Historic Trail; S. 722, to direct the Secretary of the Interior and the Secretary of Agriculture to jointly conduct a study of certain land adjacent to the Walnut Canyon National Monument in the State of Arizona; S. 783, to adjust the boundary of the Barataria Preserve Unit of the Jean Lafitte National Historical Park and Preserve in the State of Louisiana; S. 890, to provide for certain administrative and support services for the Dwight D. Eisenhower Memorial Commission; and H.R. 1047, to authorize the Secretary of the Interior to conduct a study to determine the suitability and feasibility of designating the Soldiers' Memorial Military Museum located in St. Louis, MO, as a unit of the National Park System.

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

## AMERICA COMPETES ACT

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

S. 761

*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 Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science 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.
- (2) DIVISION B.—Department of Energy.
- (3) DIVISION C.—Education.
- (4) DIVISION D.—National Science Foundation.
- (5) DIVISION E.—General Provisions.

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

Sec. 1. Short title.  
Sec. 2. Organization of Act into divisions;  
table of contents.

## DIVISION A—COMMERCE AND SCIENCE

Sec. 1001. Short title.

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

Sec. 1101. National Science and Technology Summit.

Sec. 1102. Study on barriers to innovation.  
Sec. 1103. National Innovation Medal.  
Sec. 1104. Release of scientific research results.  
Sec. 1105. Semiannual Science, Technology, Engineering, and Mathematics Days.  
Sec. 1106. Study of service science.

## TITLE II—INNOVATION PROMOTION

Sec. 1201. President's Council on Innovation and Competitiveness.  
Sec. 1202. Innovation acceleration research.  
TITLE III—NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
Sec. 1301. NASA's contribution to innovation.  
Sec. 1302. Aeronautics Institute for Research.  
Sec. 1303. Basic research enhancement.  
Sec. 1304. Aging workforce issues program.  
Sec. 1305. Conforming amendments.  
Sec. 1306. Fiscal year 2008 basic science and research funding.

TITLE IV—NATIONAL INSTITUTE OF  
STANDARDS AND TECHNOLOGY

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

TITLE V—OCEAN AND ATMOSPHERIC  
PROGRAMS

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

## DIVISION B—DEPARTMENT OF ENERGY

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

## DIVISION C—EDUCATION

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

## TITLE I—TEACHER ASSISTANCE

Subtitle A—Teachers for a Competitive Tomorrow

Sec. 3111. Purpose.  
Sec. 3112. Definitions.  
Sec. 3113. Programs for baccalaureate degrees in mathematics, science, engineering, or critical foreign languages, with concurrent teacher certification.

Sec. 3114. Programs for master's degrees in mathematics, science, technology, or critical foreign languages education.

Sec. 3115. General provisions.

Sec. 3116. Authorization of appropriations.

Subtitle B—Advanced Placement and International Baccalaureate Programs

Sec. 3121. Purpose.

Sec. 3122. Definitions.

Sec. 3123. Advanced Placement and International Baccalaureate programs.

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

Sec. 3131. Promising practices.

**TITLE II—MATHEMATICS**

Sec. 3201. Math Now for elementary school and middle school students program.

Sec. 3202. Summer term education programs.

Sec. 3203. Math skills for secondary school students.

**TITLE III—FOREIGN LANGUAGE PARTNERSHIP PROGRAM**

Sec. 3301. Findings and purpose.

Sec. 3302. Definitions.

Sec. 3303. Program authorized.

Sec. 3304. Authorization of appropriations.

**TITLE IV—ALIGNMENT OF EDUCATION PROGRAMS**

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

**TITLE V—MATHEMATICS AND SCIENCE PARTNERSHIP BONUS GRANTS**

Sec. 3501. Mathematics and science partnership bonus grants.

Sec. 3502. Authorization of appropriations.

**DIVISION D—NATIONAL SCIENCE FOUNDATION**

Sec. 4001. Authorization of appropriations.

Sec. 4002. Strengthening of education and human resources directorate through equitable distribution of new funds.

Sec. 4003. Graduate fellowships and graduate traineeships.

Sec. 4004. Professional science master's degree programs.

Sec. 4005. Increased support for science education through the National Science Foundation.

Sec. 4006. Meeting critical national science needs.

Sec. 4007. Reaffirmation of the merit-review process of the National Science Foundation.

Sec. 4008. Experimental Program to Stimulate Competitive Research.

Sec. 4009. Encouraging participation.

Sec. 4010. Cyberinfrastructure.

Sec. 4011. Federal information and communications technology research.

Sec. 4012. Robert Noyce Teacher Program.

Sec. 4013. Sense of the Senate regarding the mathematics and science partnership programs of the Department of Education and the National Science Foundation.

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. 5003. Government Accountability Office Review of Activities, Grants, and Programs.

Sec. 5004. Prohibition against funding anti-competitiveness.

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 A—COMMERCE AND 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; GOVERNMENT-WIDE SCIENCE**

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

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the President shall convene a National Science and Technology Summit to examine the health and direction of the United States' science, technology, engineering, and mathematics enterprises. The Summit shall include representatives of industry, small business, labor, academia, State government, Federal research and development agencies, non-profit environmental and energy policy groups concerned with science and technology issues, and other nongovernmental organizations, including representatives of science, technology, and engineering organizations and associations that represent individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b).

(b) REPORT.—Not later than 90 days after the date of the conclusion of the Summit, the President shall issue a report on the results of the Summit. The report shall identify key research and technology challenges and recommendations, including recommendations to increase the representation 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, engineering, and technology enterprises, for areas of investment for Federal research and technology programs to be carried out during the 5-year period beginning on the date the report is issued.

(c) ANNUAL EVALUATION.—Beginning in 2008, the Director of the Office of Science and Technology Policy shall publish and submit to Congress an annual report that contains recommendations for areas of investment for Federal research and technology programs, including a justification for each area identified in the report. Each report submitted during the 5-year period beginning on the date of the conclusion of the Summit shall take into account any recommendations made by the Summit.

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

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

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

(2) methods of voluntary and supplemental disclosure by industry of intellectual capital, innovation performance, and indicators of future valuation;

(3) means by which government could work with industry to enhance the legal and regu-

latory framework to encourage the disclosures described in paragraph (2);

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

(5) costs faced by United States businesses engaging in innovation compared to foreign competitors, including the burden placed on businesses by high and rising health care costs;

(6) means by which industry, trade associations, and universities could collaborate to support research on management practices and methodologies for assessing the value and risks of longer term innovation strategies;

(7) means to encourage new, open, and collaborative dialogue between industry associations, regulatory authorities, management, shareholders, labor, and other concerned interests to encourage appropriate approaches to innovation risk-taking;

(8) incentives to encourage participation among institutions of higher education, especially those in rural and underserved areas, to engage in innovation;

(9) relevant Federal regulations that may discourage or encourage innovation;

(10) all provisions of the Internal Revenue Code of 1986, including tax provisions, compliance costs, and reporting requirements, that discourage innovation;

(11) the extent to which Federal funding promotes or hinders innovation;

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

(A) elementary school and secondary school student academic achievement on the State academic assessments required under section 1111(b)(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311 (b)(3)), especially in mathematics, science, and reading, identified by ethnicity, race, and gender;

(B) the rate of student entrance into institutions of higher education, identified by ethnicity, race, and gender, by type of institution, and barriers to access to institutions of higher education;

(C) the rates of—

(i) students successfully completing post-secondary education programs, identified by ethnicity, race, and gender; and

(ii) certificates, associate degrees, and baccalaureate degrees awarded in the fields of science, technology, engineering, and mathematics, identified by ethnicity, race, and gender; and

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

(13) the projected outcomes of increasing the number 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; and

(14) the identification of strategies to increase 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.

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

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Academy of Sciences \$1,000,000 for fiscal year 2008 for the purpose of carrying out the study required under this section.

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

Section 16 of the Stevenson-Wylder Technology Innovation Act of 1980 (15 U.S.C. 3711) is amended—

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

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

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

(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, in consultation with the Director of the Office of Management and Budget and the heads of all Federal civilian agencies that conduct scientific research, shall develop and issue an overarching set of principles to ensure the communication and 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. The principles shall encourage the open exchange of data and results of research undertaken 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”).

(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 regarding the public release of data and results of research conducted by a scientist employed by such an agency consistent with the principles established under subsection (a). Such policies and procedures shall—

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

(2) be specifically designed for each such agency;

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

(4) be widely communicated and readily accessible to all employees of each such agency and the public.

**SEC. 1105. SEMI-ANNUAL SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS DAYS.**

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

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

(2) initiate a program, in consultation with Federal agencies and departments, to provide support systems, tools (from existing outreach offices), and mechanisms to allow and encourage Federal employees with scientific, technological, engineering, or mathematical responsibilities to reach out to local classrooms on such Science, Technology, Engineering, and Mathematics Days to instruct and inspire school children, focusing on real life science, technology, engineering, and mathematics-related applicable experiences along with hands-on demonstrations in order to demonstrate the advantages and direct applications of studying the science, technology, engineering, and mathematics fields; and

(3) promote Science, Technology, Engineering, and Mathematics Days involvement by private sector and institutions of higher education employees, including partnerships with scientific, engineering, and mathematical professional organizations representing individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b), in a manner similar to the Federal employee involvement described in paragraph (2).

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

(a) **SENSE OF CONGRESS.**—It is the sense of Congress that, in order to strengthen the competitiveness of United States enterprises and institutions and to prepare the people of the United States for high-wage, high-skill employment, the Federal Government should better understand and respond strategically to the emerging management and learning discipline known as service science.

(b) **STUDY.**—Not later than 270 days after the date of enactment of this Act, the Director of the Office of Science and Technology Policy, through the National Academy of Sciences, shall conduct a study and report to Congress regarding how the Federal Government should support, through research, education, and training, the emerging management and learning discipline known as service science.

(c) **OUTSIDE RESOURCES.**—In conducting the study under subsection (b), 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. 1001(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 that integrate elements of computer science, operations research, industrial engineering, business strategy, management sciences, and social and legal sciences, in order to encourage innovation in how organizations create value for customers and shareholders that could not 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) providing advice to 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 impact of existing and proposed policies and rules that affect innovation capabilities in the United States;

(4) identifying opportunities and making recommendations for 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 innova-

tion, 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 or head 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 Securities 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) Any other department or agency 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 a world 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.**—

(A) **RECOMMENDATION.**—Not later than 30 days after the date of enactment of this Act, the National Academy of Sciences, in consultation with the National Academy of Engineering, the Institute of Medicine, and the National Research Council, shall develop and submit to the President a list of 50 individuals that are recommended to serve as advisors to the Council during the development of the comprehensive agenda required by paragraph (1). The list of advisors shall include appropriate representatives from the following:

- (i) The private sector of the economy.
- (ii) Labor.
- (iii) Various fields including information technology, energy, engineering, high-technology manufacturing, health care, and education.
- (iv) Scientific organizations.
- (v) Academic organizations and other nongovernmental organizations working in the area of science or technology.

(vi) Nongovernmental organizations, such as professional organizations, that represent individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in the areas of science, engineering, technology, and mathematics.

(B) DESIGNATION.—Not later than 30 days after the date that the National Academy of Sciences submits the list of recommended individuals to serve as advisors, the President shall designate 50 individuals to serve as advisors to the Council.

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

(4) INITIAL SUBMISSION AND UPDATES.—

(A) INITIAL SUBMISSION.—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 update 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 High-Performance Computing Act of 1991 (15 U.S.C. 5511(b)) is amended by striking “an” in the first sentence and inserting “a distinct”.

(f) OPTIONAL ASSIGNMENT.—Notwithstanding subsection (a) and paragraphs (1) and (2) of subsection (c), the President may designate an existing 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 support and promote innovation in the United States through research projects that can yield results with far-ranging or wide-ranging implications but are considered too novel or span too diverse a range of disciplines to fare 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 multidisciplinary work; and
- (3) involve a high degree of novelty.

(b) DEPARTMENTS AND AGENCIES.—

(1) FUNDING GOALS.—The President shall ensure that 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 Executive agency participating in the Innovation Acceleration Research Program under paragraph (1) shall submit to the Director of the Office of Science and Technology Policy and the Director of the Office of Management and Budget a plan for implementing the research program within

such Executive agency. An implementation plan may incorporate existing initiatives of the Executive agencies that promote research in innovation as described in subsection (a).

(B) REQUIRED METRICS.—

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

(ii) METRICS FOR BASIC RESEARCH.—The metrics developed under clause (i) to assess basic research programs shall assess management of the programs and shall not assess specific scientific outcomes of the research conducted by the programs.

(C) GRANT DURATION AND RENEWALS.—

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

(ii) EVALUATION.—Not later than 90 days prior to the expiration of a grant issued under this section, the Executive agency that approved the grant shall complete an evaluation of the effectiveness of the grant based on the metrics established pursuant to subparagraph (B). In its evaluation, the Executive agency shall consider the extent to which the program funded by the grant met the goals of quality improvement and job creation.

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

(iv) FAILURE TO MEET METRICS.—Any grant that the Executive agency awarding the grant determines has failed to satisfy any of the metrics developed pursuant to subparagraph (B), shall not be eligible for a renewal.

(v) RENEWAL.—A grant issued under this section that satisfies all of the metrics developed pursuant to subparagraph (B), may be renewed once for a period of not more than 3 years. Additional renewals may be considered only if the head of the Executive agency makes a specific finding that the program being funded involves a significant technology or scientific advance that requires a longer time frame to complete critical research, and the research satisfies all the metrics developed pursuant to subparagraph (B).

(vi) WAIVER.—The head of the Executive agency may authorize a waiver of the requirement of clauses (iv) and (v) related to satisfying metric requirements if he or she determines that the grant failed to meet a small number of metrics and the failure was not significant for the overall performance of the grant.

(c) DEFINITIONS.—In this section:

(1) FEDERAL RESEARCH AGENCY.—The term “Federal research agency” means a major organizational component of a department or agency of the Federal Government, or other establishment of the Federal Government operating with appropriated funds, that has as its primary purpose the performance of scientific research.

(2) MAJOR ORGANIZATIONAL COMPONENT.—The term “major organizational component”, with respect to a department, agency, or other establishment of the Federal Government, means a component of the department, agency, or other establishment that is administered by an individual whose rate of basic pay is not less than the rate of basic pay payable under level V of the Executive Schedule under section 5316 of title 5, United States Code.

**TITLE III—NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**SEC. 1301. NASA’S CONTRIBUTION TO INNOVATION.**

(a) PARTICIPATION IN INTERAGENCY ACTIVITIES.—The National Aeronautics and Space Administration shall be a full participant in any interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific research and development 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 Aeronautics and Space Administration shall build on the historic role of the National Aeronautics and Space Administration in stimulating excellence in the advancement of physical science and engineering disciplines and in providing opportunities and incentives for the pursuit of academic studies in science, technology, engineering, and mathematics.

(c) BALANCED SCIENCE PROGRAM AND ROBUST AUTHORIZATION LEVELS.—The balanced science program authorized by section 101(d) of the National Aeronautics and Space Administration Authorization Act of 2005 (42 U.S.C. 16611) shall be an element of the contribution by the National Aeronautics and Space Administration to such interagency programs. It is the sense of Congress that a robust National Aeronautics and Space Administration, funded at the levels authorized for fiscal years 2007 and 2008 under sections 202 and 203 of such Act (42 U.S.C. 16631 and 16632) and at appropriate levels in subsequent fiscal years would enable a fair balance among science, aeronautics, education, exploration, and human space flight programs and allow full participation in any interagency efforts to promote innovation and economic competitiveness.

(d) ANNUAL REPORT.—

(1) REQUIREMENT.—The Administrator shall submit to Congress and the President an annual report describing the activities conducted pursuant to this section, including a description of the goals and the objective metrics upon which funding decisions were made.

(2) CONTENT.—Each report submitted pursuant to paragraph (1) shall include, with regard to science, technology, engineering, and mathematics education programs, at a minimum, the following:

- (A) A description of each program.
- (B) The amount spent on each program.
- (C) The number of students or teachers served by each program.
- (D) Measurement of how each program improved student achievement, including with regard to challenging State achievement standards.

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

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Administrator of the National Aeronautics and Space Administration shall establish within the Administration an Aeronautics Institute for Research for the purpose of managing the aeronautics research carried out by the Administration.

(2) DIRECTOR.—The Institute shall be headed by a Director with appropriate experience in aeronautics research and development.

(b) DUTIES.—The Institute shall implement the programs authorized under title IV of the National Aeronautics and Space Administration Authorization Act of 2005 (42 U.S.C. 16701 et seq.).

(c) COOPERATION WITH OTHER AGENCIES.—

(1) IN GENERAL.—The Institute shall operate in conjunction with relevant programs in

the Department of Transportation, the Department of Defense, the Department of Commerce, and the Department of Homeland Security, including the activities of the Joint Planning and Development Office established under the Vision 100—Century of Aviation Reauthorization Act (Public Law 108-176; 117 Stat. 2490).

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

(3) **OTHER 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 108-176; 49 U.S.C. 40101 note) to coordinate its programs with other Departments and agencies.

(d) **PARTNERSHIPS.**—In developing and carrying out its plans, the Institute shall consult with the public and ensure the participation of experts from 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 Secretary of Commerce shall, to the extent practicable, coordinate basic and fundamental research activities related to physical sciences, technology, engineering and mathematics.

(b) **ESTABLISHMENT OF BASIC RESEARCH EXECUTIVE COUNCIL.**—In order to ensure effective application of resources to basic science activity and to facilitate cooperative basic and fundamental research activities 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 support of basic research activity.

(c) **MEMBERSHIP.**—The membership of the Basic Research Executive Council shall consist of the most senior agency official representing each of the following areas of research:

- (1) Space Science.
- (2) Earth Science.
- (3) Life and Microgravity Sciences.
- (4) Aeronautical Research.

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

(e) **SUPPORTING RESOURCES AND PERSONNEL.**—The Chairman of the Basic Research Executive Council shall be provided with adequate administrative staff support to conduct the activity and functions of the Council.

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

- (1) To establish criteria for the identification of research activity as basic in nature.
- (2) To establish, in consultation with the Office of Science and Technology Policy, the

National Science Foundation, the National Academy of Sciences, the National Institutes of Health, and other appropriate external organizations, a prioritization of fundamental research activity to be conducted by the National Aeronautics and Space Administration, to be reviewed and updated on an annual basis, taking into consideration evolving national research priorities.

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

(4) 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 the research priorities established under this section.

(5) 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 initial 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 work force issues in aerospace that—

(1) documents technical and management experiences before senior people leave the Administration, including—

- (A) documenting lessons learned;
- (B) briefing organizations;
- (C) providing opportunities for archiving lessons in a database; and

(D) providing 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;

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

(3) 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 2005 (42 U.S.C. 16611(d)) is amended—

- (1) by striking “and” after the semicolon in paragraph (2)(B);
- (2) by striking “Act.” in paragraph (2)(C) and inserting “Act; and”;
- (3) by adding at the end of paragraph (2) the following:

“(D) the number and content of science activities which are undertaken in support of science missions described in subparagraph (A), and the number and content of science activities which may be considered as fundamental, or basic research, whether incorporated within specific missions or conducted independently of any specific mission.”; and

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

“(H) How NASA science activities can best be structured to ensure that basic and fundamental research can be effectively maintained and coordinated in response to national goals in competitiveness and innovation, and in contributing to national scientific, technology, engineering and mathematics leadership.”.

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

Notwithstanding any other provision of law, the Administrator of the National Aeronautics and Space Administration shall increase funding for basic science and research, including for the Explorer Program, for fiscal year 2008 by \$160,000,000 by transferring such amount for such purpose from accounts of the National Aeronautics and Space Administration. The transfer shall be contingent upon the availability of unobligated balances to the National Aeronautics and Space Administration.

#### TITLE IV—NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

#### SEC. 1401. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce for the use of the National Institute of Standards and Technology—

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

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

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

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

#### SEC. 1402. AMENDMENTS TO THE STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980.

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

(b) **CONFORMING AMENDMENTS.**—

(1) **TITLE 5, UNITED STATES CODE.**—Section 5314 of title 5, United States Code, is amended by striking “Under Secretary of Commerce for Technology.”.

(2) **DEFINITIONS.**—Section 4 of the Stevenson-Wylder Technology Innovation Act of 1980 (15 U.S.C. 3703) is amended—

- (A) by striking paragraphs (1) and (3); and
- (B) by redesignating paragraphs (2) through (13) as paragraphs (1) through (11), respectively.

(3) **REPEAL OF AUTHORIZATION.**—Section 21(a) of the Stevenson-Wylder Technology Innovation Act of 1980 (15 U.S.C. 3713(a)) is amended—

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

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

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

(5) **ASSISTIVE TECHNOLOGY ACT OF 1998.**—Section 6(b)(4)(B)(v) of the Assistive Technology Act of 1998 (29 U.S.C. 3005(b)(4)(B)(v)) is amended by striking “the Technology Administration of the Department of Commerce,” and inserting “the National Institute of Standards and Technology;”.

#### SEC. 1403. INNOVATION ACCELERATION.

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

- (1) establish a program linked to the goals and objectives of the measurement laboratories, to be known as the “Standards and

Technology Acceleration Research Program”, to support and promote innovation in the United States through high-risk, high-reward research; and

(2) set aside, from 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 used to award competitive, merit-reviewed grants, cooperative agreements, or contracts to public or private entities, including businesses and universities. In selecting entities to receive such assistance, the Director shall ensure that the project proposed by an entity has scientific and technical merit and that any resulting intellectual property shall vest in a United States entity that can commercialize the technology in a timely manner. Each external project shall involve at least one small or medium-sized business and the Director shall give priority to joint ventures between small or medium-sized businesses and educational institutions. Any grant shall be for a period not to exceed 3 years.

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

(d) ANNUAL REPORT.—Each year the Director shall issue an annual report describing the program’s activities, including include a description of the metrics upon which grant funding decisions were made in the previous fiscal year, any proposed changes to those metrics, metrics for evaluating the success of ongoing and completed grants, and an evaluation of ongoing and completed grants. The first annual report shall include best practices for management of programs to stimulate high-risk, high-reward research.

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

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

- (1) has the potential for yielding results with far-ranging or wide-ranging implications;
- (2) addresses critical national needs related to measurement standards and technology; and
- (3) is too novel or spans too diverse a range of disciplines to fare well in the traditional peer review process.

**SEC. 1404. MANUFACTURING EXTENSION.**

(a) MANUFACTURING CENTER EVALUATION.—Section 25(c)(5) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(c)(5)) is amended by inserting “A Center that has not received a positive evaluation by the evaluation panel shall be notified by the panel of the deficiencies in its performance and shall be placed on probation for one year, after which time the panel shall reevaluate the Center. If the Center has not addressed the deficiencies identified by the panel, or shown a significant improvement in its performance, the Director shall conduct a new competition to select an operator for the Center or may close the Center.” after “at declining levels.”.

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

“(d) ACCEPTANCE OF FUNDS.—In addition to such sums as may be appropriated to the Secretary and Director to operate the Centers program, the Secretary and Director also may accept funds from other Federal departments and agencies and under section

2(c)(7) from the private sector for the purpose of strengthening United States manufacturing. Such funds from the private sector, if allocated to a Center or Centers, shall not be considered in the calculation of the Federal share of capital and annual operating and maintenance costs under subsection (c).”.

**SEC. 1405. EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE TECHNOLOGY.**

(a) IN GENERAL.—The Director of the National Institutes of Standards and Technology shall re-establish the Experimental Program to Stimulate Competitive Technology. The purpose of the program shall be to strengthen the 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.—In carrying out the program, the Director shall cooperate with State, regional, or local science and technology-based economic development organization and with representatives of small business firms and other appropriate technology-based businesses.

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

- (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 activities 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 Senate and the Committee on Science 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 management plan for the program;
- (C) a description of the merit-based review process to be used in the program;

(D) milestones for the evaluation of activities to be assisted under the program in fiscal year 2008;

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

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

**SEC. 1406. TECHNICAL AMENDMENTS TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY ACT AND OTHER TECHNICAL AMENDMENTS.**

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

(b) FINANCIAL AGREEMENTS.—

(1) CLARIFICATION.—Section 2(b)(4) of the National Institute of Standards and Technology Act (15 U.S.C. 272(b)(4)) is amended by inserting “and grants and cooperative agreements,” after “arrangements.”.

(2) MEMBERSHIPS.—Section 2(c) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)) is amended—

- (A) by striking “and” after the semicolon in paragraph (21);
- (B) by redesignating paragraph (22) as paragraph (23); and
- (C) by inserting after paragraph (21) the following:

“(22) notwithstanding subsection (b)(4) of this section, sections 6301 through 6308 of title 31, United States Code (commonly known as the ‘Grants and Cooperative Agreements Act’), sections 3551 through 3556 of such title (commonly known as the ‘Competition in Contracting Act’), and the Federal Acquisition Regulations set forth in title 48, Code of Federal Regulations, to expend appropriated funds for National Institute of Standards and Technology memberships in scientific organizations, registration fees for attendance at conferences, and sponsorship of conferences in furtherance of technology transfer; and”.

(c) OUTDATED SPECIFICATIONS.—

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

**“SEC. 2. METRIC SYSTEM DEFINED.**

“The metric system of measurement shall be defined as the International System of Units as established in 1960, and subsequently maintained, by the General Conference of Weights and Measures, and as interpreted or modified for the United States by the Secretary of Commerce.”.

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

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

- (A) in the section heading, by striking “third zone” and inserting “fourth zone”; and
- (B) by striking “third zone” and inserting “fourth zone”.

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

- (A) by inserting “(a) IN GENERAL.—” before “For the purpose”;
- (B) by striking the second sentence and the extra period after it and inserting “Except as provided in section 3(a) of the Uniform Time

Act of 1966 (15 U.S.C. 260a), 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 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

(C) by adding at the end the following:

“(b) COORDINATED UNIVERSAL TIME DEFINED.—In this section, the term ‘Coordinated Universal Time’ means the time scale maintained through the General Conference of Weights and Measures and interpreted or modified for the United States by the Secretary of Commerce in coordination with the Secretary of the Navy.”.

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

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

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

“(3) FINANCIAL SUPPORT.—

“(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 under this subsection, in accordance with the procedures established by the Secretary and published in the Federal Register under paragraph (2).

“(B) CENTER CONTRIBUTIONS.—In order to receive assistance under this section, an applicant for financial assistance under subparagraph (A) shall provide adequate assurances that non-Federal assets obtained from the applicant and the applicant’s partnering organizations will be used as a funding source to meet not less than 50 percent of the costs incurred for the first 3 years and an increasing share for each of the last 3 years. For purposes of the preceding sentence, the costs incurred means the costs incurred in connection with the activities undertaken to improve the management, productivity, and technological performance of small- and medium-sized manufacturing companies.

“(C) AGREEMENTS WITH OTHER ENTITIES.—In meeting the 50 percent requirement, it is anticipated that a Center will enter into agreements with other entities such as private industry, universities, and State governments to accomplish programmatic objectives and access new and existing resources that will further the impact of the Federal investment made on behalf of small- and medium-sized manufacturing companies. All non-Federal costs, contributed by such entities and determined by a Center as programmatic reasonable and allocable are includable as a portion of the Center’s contribution.

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

**TITLE V—OCEAN AND ATMOSPHERIC PROGRAMS**

**SEC. 1501. OCEAN AND ATMOSPHERIC RESEARCH AND DEVELOPMENT PROGRAM.**

The Administrator of the National Oceanic and Atmospheric Administration, in con-

sultation with the Director of the National Science Foundation and the Administrator of the National Aeronautics and Space Administration, shall establish a coordinated program of ocean, coastal, Great Lakes, and atmospheric research and development, in collaboration with academic institutions and other nongovernmental entities, that shall focus on the development of advanced technologies and analytical methods that will promote United States leadership in ocean and atmospheric science and competitiveness in the applied uses of such knowledge.

**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 and atmospheric science and policy careers. In conducting those activities, the Administrator shall build upon the educational programs and activities of the agency.

(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 education 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 438 of the General Education Provisions Act (20 U.S.C. 1232a) or sections 504 and 508 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 be a full participant in any interagency effort to promote innovation and economic competitiveness through near-term and long-term basic scientific research and development 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 stimulating excellence in the advancement of ocean and atmospheric science and engineering disciplines and in providing opportunities and incentives for the pursuit of academic studies in science, 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 routine, independent reviews of 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 con-

ducted 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 officers or employees of the Administration to discuss an ongoing project or training.

(c) PROHIBITION ON CONFLICTS OF INTEREST.—Each person who receives 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 in any other manner to another 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 the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(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. 7132(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 in this subsection 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 on all matters pertaining to mathematics, science, and engineering education at the Department.

“(3) DUTIES.—The Director shall—

“(A) oversee all mathematics, science, and engineering education programs of the Department;

“(B) represent the Department as the principal interagency liaison for all mathematics, science, and engineering education programs, unless otherwise represented by the Secretary or 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 at every level of 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 performance of the mathematics, science, and engineering education programs of the Department.

“(B) CONSIDERATIONS.—An assessment under this paragraph shall be conducted taking into consideration, where applicable, the effect of mathematics, science, and engineering education programs of the Department on student academic achievement in math and science.

“(6) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.”; and

(3) 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) consult with the Secretary of Education regarding activities authorized under subpart B of the Department of Energy Science Education Enhancement Act (as added by subsection (d)(3)) to improve mathematics and science education; and

(2) otherwise make available to the Secretary of Education reports associated with programs authorized under that section.

(c) DEFINITION.—Section 3168 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381d) is amended by adding at the end the following:

“(5) 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. 7381 et seq.) is amended—

(1) by inserting after section 3162 the following:

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

(2) in section 3169, by striking “part” and inserting “subpart”; and

(3) by adding at the end 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 section 2 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 assistance to States 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 mathematics and science (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 subsection (i), 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 appropriate resources of the Department, including the National Laboratories, are available to schools funded under this section in order to—

“(A) increase experiential, hands-on learning opportunities in mathematics, science, engineering, and technology for students attending such schools; and

“(B) provide ongoing professional development opportunities for teachers employed at such schools.

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

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

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

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

“(4) RESTRICTION.—No State shall receive funding for more than 1 specialty school for mathematics and science for a fiscal year.

“(d) FEDERAL AND NON-FEDERAL SHARES.—

“(1) FEDERAL SHARE.—The Federal share of the costs described in subsection (c)(1) shall not exceed 50 percent.

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

“(A) not less than 50 percent; and

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

“(e) APPLICATION.—Each State desiring 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—

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

“(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—

“(A) in accordance with the activities described in subsection (g); and

“(B) that has the capacity to improve the academic achievement of all students in all core academic subjects, and particularly in mathematics and science;

“(3) how the State will measure the extent to which the school increases student academic achievement on State academic achievement standards in mathematics, science, and, to the extent applicable, technology and engineering;

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

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

“(6) how the State will use technical assistance and support from the Department, including the National Laboratories, and other entities with experience and expertise in mathematics, science, technology, and engineering education, including institutions of higher education.

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

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

“(2) provide equal consideration to States without National Laboratories.

“(g) 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 learning and teaching in mathematics, science, technology, and engineering;

“(B) integrate into the curriculum of the school comprehensive mathematics and science education, including instruction and assessments in mathematics, science, and to the extent applicable, technology and engineering that are aligned with the State’s academic content and student academic achievement standards (within the meaning of section 1111 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311)), classroom management, professional development, parental involvement, and school management; and

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

“(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.

“(h) EVALUATION AND REPORT.—

“(1) STATE EVALUATION AND REPORT.—

“(A) EVALUATION.—Each State that receives a grant under this section shall develop and carry out an evaluation and accountability plan for the activities funded through the grant that measures the impact of the activities, including measurable objectives for improved student academic achievement on State mathematics, science, and, to

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 PACE—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.

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

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

“(2) \$30,000,000 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) SELECTION 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 and secondary school students in determining eligibility under this section, in accordance with subsection (1) and (2).

“(c) PRIORITY.—

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

“(d) OUTREACH AND EXPERIENTIAL-BASED PROGRAMS FOR MINORITY STUDENTS.—

“(1) IN GENERAL.—The Secretary, acting through the Director, in cooperation with Hispanic-serving institutions, 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-based learning projects, 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.

“(e) 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.

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

#### “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) DEFINITION OF HIGH-NEED PUBLIC SECONDARY SCHOOL.—In this chapter, the term ‘high-need public secondary school’ means a secondary school—

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

“(2) designated with a school locale code of 6, 7, or 8, as determined by the Secretary of Education.

“(b) ESTABLISHMENT.—The Secretary shall establish at each of the National Laboratories a program to support a Center of Excellence in Mathematics, Science, Technology, and Engineering at 1 high-need public secondary school located in the region of the National Laboratory to provide assistance in accordance with subsection (f).

“(c) PARTNERSHIP.—Each high-need public secondary school selected as a Center of Excellence shall form a partnership with a department that provides training for teachers and principals at an institution of higher education for purposes of compliance with subsection (g).

“(d) SELECTION.—

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

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

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

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

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

“(2) uses National Laboratory scientific equipment in the teaching of the courses.

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

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

“(2) provision of supervision and mentoring for teacher candidates in the teacher preparation program; and

“(3) to the maximum extent practicable, provision of professional development for veteran teachers in the public secondary schools in the region.

“(h) EVALUATION.—The Secretary shall consider the results of performance assessments required under subsection (e) in determining the contract award fee of a National Laboratory management and operations contractor.

“(i) PLAN.—The Director shall—

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

“(2) disseminate information obtained from those measurements.

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

#### “CHAPTER 4—SUMMER INSTITUTES

##### “SEC. 3185. SUMMER INSTITUTES.

“(a) DEFINITIONS.—In this section:

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

“(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 2 weeks;

“(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 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).

“(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 that 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).

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

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

“(ii) uses National Laboratory scientific equipment in the training.

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

“(c) REQUIRED ACTIVITIES.—Each program authorized under subsection (b) shall—

“(1) create opportunities for enhanced and ongoing professional development for teachers that improves the mathematics, science, technology, and engineering content knowledge of such teachers;

“(2) include material pertaining to recent developments in mathematics, science, technology, and engineering pedagogy;

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

“(4) directly relate to the curriculum and academic areas in which the teachers provide instruction;

“(5) enhance the ability of the teachers to understand and use the challenging State academic content standards for mathematics, science, and, to the extent applicable, technology and engineering and to select appropriate curricula;

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

“(A) based on scientific research;

“(B) aligned with challenging State academic content standards; and

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

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

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

“(d) PERMISSIBLE ACTIVITIES.—A program authorized under subsection (b) may include—

“(1) a program that provides teachers with opportunities to work under the guidance of experienced teachers and college faculty;

“(2) instruction in the use and integration of data and assessments to inform and instruct classroom practice; and

“(3) extended master teacher programs.

“(e) PRIORITY.—To the maximum extent practicable, the Director shall ensure that each summer institute program authorized under subsection (b) provides training to—

“(1) teachers from a wide range of school districts;

“(2) teachers from disadvantaged school districts; and

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

“(f) COORDINATION AND CONSULTATION.—The Director shall consult and coordinate with the Secretary of Education and the Director of the National Science Foundation regarding the implementation of the programs authorized under subsection (b).

“(g) EVALUATION AND ACCOUNTABILITY PLAN.—

“(1) IN GENERAL.—The Director shall develop an evaluation and accountability plan for the activities funded under this section that measures the impact of the activities.

“(2) CONTENTS.—The evaluation and accountability plan shall include—

“(A) measurable objectives to increase the number of mathematics, science, and technology teachers who participate in the summer institutes involved; and

“(B) measurable objectives for improved student academic achievement on State

mathematics, science, and to the extent applicable, technology and engineering assessments.

“(3) REPORT TO CONGRESS.—The Secretary shall submit to Congress with the annual budget submission of the Secretary a report on how the activities assisted under this section improve the mathematics, science, technology, and engineering teaching skills of participating teachers.

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

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

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

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

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

**“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 and resources available to nuclear science programs of institutions of higher education; and

“(2) to increase the number of graduates with degrees 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 3 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 awarded 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 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.

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

“(A) recruit and retain new faculty;

“(B) develop core and specialized course content;

“(C) encourage collaboration between faculty and researchers in the nuclear science field; or

“(D) support outreach efforts to recruit students.

“(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 the nuclear sciences who enter into careers in nuclear-related fields.

“(3) DURATION AND AMOUNT.—

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

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

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

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

“(B) enhance the teaching of advanced nuclear technologies;

“(C) aggressively pursue collaboration opportunities with industry and National Laboratories;

“(D) bolster or sustain nuclear infrastructure and research facilities of the institution of higher education, such as research and training reactors or laboratories; and

“(E) provide tuition assistance and stipends to undergraduate and graduate students.

“(f) AUTHORIZATION OF APPROPRIATIONS.—

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

“(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 subsection (e)—

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

“(B) \$16,500,000 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 1, 3, and 4, the Director shall establish a program to recruit and provide mentors for women and underrepresented minorities who are interested in careers in mathematics, science, and engineering. The program shall pair mentors with women and minorities who are in programs of study at specialty schools for mathematics and science, Centers of Excellence, and summer institutes established under chapters 1, 3, and 4, respectively.

“(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 grade-level 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 for students in kindergarten through grade 9 through the implementation of energy education programs and with the support of comprehensive science education initiatives that are based on the best available evidence of effectiveness; and

“(2) providing professional development and instructional leadership activities for teachers and, if appropriate, for administrators and other school staff, on the implementation of comprehensive mathematics initiatives designed—

“(A) to improve the understanding of students of the scientific, economic, and environmental impacts of energy;

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

“(C) to increase the use of effective instructional practices; and

“(D) to reflect science content that is consistent with State academic achievement standards in mathematics described in section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)).

“(b) PROGRAM.—The Secretary (acting through the Director) (referred to in this section as the ‘Secretary’) 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.

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

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

“(e) PROGRAMS.—In carrying out this section, the Secretary shall award grants to establish or expand programs that enhance—

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

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

“(f) FEDERAL AND NON-FEDERAL SHARES.—

“(1) FEDERAL SHARE.—The Federal share of the costs of carrying out a program under this section shall be 50 percent.

“(2) NON-FEDERAL SHARE.—The non-Federal share of the costs of carrying out a program under this section may be provided in the form of cash or in-kind contributions, fairly evaluated, including services.

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

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

“(2) provide equal consideration to States without National Laboratories.

“(h) USES OF FUNDS.—

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

“(A) employ proven strategies and methods for improving student learning and teaching regarding energy;

“(B) integrate into the curriculum of schools comprehensive, science-based, energy education, including instruction and assessments that are aligned with—

“(i) the academic content and student academic achievement standards of the State (within the meaning of section 1111 of the El-

ementary and Secondary Education Act of 1965 (20 U.S.C. 6311));

“(ii) classroom management;

“(iii) professional development;

“(iv) parental involvement; and

“(v) school management; and

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

“(2) REQUIREMENTS.—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 related to—

“(A) the science of energy;

“(B) the sources of energy;

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

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

“(i) 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-CAREER 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 authorized under this section, except 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 accompanied 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 or family responsibilities.

(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.—An eligible early career-researcher who receives a grant under this section shall use the grant funds for basic research in natural sciences, engineering, mathematics, or computer sciences at the Department, particularly the National Laboratories, or other federally-funded research and development center.

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

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

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

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

(D) \$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).

(4) ENERGY TECHNOLOGY.—The term “energy technology” means technology, including carbon-neutral technology, used for—

(A) fossil energy;

(B) carbon sequestration;

(C) nuclear energy;

(D) renewable energy;

(E) energy distribution; or

(F) energy efficiency technology.

(b) 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.

(c) DIRECTOR.—

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

(2) QUALIFICATIONS.—The Director 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.

(3) DUTIES.—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;

(B) serve as the selection official for proposals relating to energy technologies that are solicited within the Department;

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

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

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

(d) ADVISORY BOARD.—

(1) APPOINTMENT.—The Secretary shall, consistent with the Federal Advisory Committee Act (5 U.S.C. App.), establish, and appoint members to, an Advisory Board to make recommendations to the Secretary and the Director on actions necessary to carry out this section.

(2) QUALIFICATIONS.—The Advisory Board shall consist of individuals who, by reason of professional background and experience, are especially qualified to advise the Secretary and the Director on matters pertaining to long-term and high-risk technological barriers in the development of energy technologies.

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

(4) INFORMATION.—Each fiscal year, individuals who carry out energy technology programs of the Department and staff of the Authority shall provide to the Advisory Board written proposals and oral briefings on long-term and high-risk technological barriers that are critical to overcome for the successful development of energy technologies.

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

(A) recommend to the Secretary and the Director—

(i) in order of priority, proposals of energy programs of the Department that are critical to overcoming long-term and high-risk technological barriers to enable the successful development of energy technologies; and

(ii) additional programs not covered in the proposals that are critical to overcoming the barriers described in clause (i); and

(B) based on the metrics described in subsection (c)(3)(C), make recommendations to the Secretary and the Directory concerning whether programs funded under this section are achieving the goals of the programs.

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

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

(2) submit to Congress, the Secretary, and the Director a report describing the results of each review.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2008 through 2011.

**SEC. 2006. AUTHORIZATION OF APPROPRIATIONS FOR THE DEPARTMENT OF ENERGY FOR BASIC RESEARCH.**

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)—

(A) by striking “\$5,200,000,000” and inserting “\$4,800,000,000”; and

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

(3) by adding at the end the following:

“(4) \$4,945,000,000 for fiscal year 2010; and  
“(5) \$5,265,000,000 for fiscal year 2011.”.

**SEC. 2007. DISCOVERY SCIENCE AND ENGINEERING INNOVATION INSTITUTES.**

(a) IN GENERAL.—The Secretary shall establish distributed, multidisciplinary institutes (referred to in this section as “Institutes”) centered at National Laboratories to apply fundamental science and engineering discoveries to technological innovations related to the missions of the Department and the global competitiveness of the United States.

(b) TOPICAL AREAS.—The Institutes shall support scientific and engineering research and education activities on critical emerging technologies determined by the Secretary to be essential to global competitiveness, including activities related to—

- (1) sustainable energy technologies;
- (2) multi-scale materials and processes;
- (3) micro- and nano-engineering;
- (4) computational and information engineering; and
- (5) genomics and proteomics.

(c) PARTNERSHIPS.—In carrying out this section, the Secretary shall establish partnerships between the Institutes and—

- (1) institutions of higher education to—
  - (A) train undergraduate and graduate engineering and science students;
  - (B) develop innovative educational curricula; and
  - (C) conduct research within the topical areas described in subsection (b);
- (2) private industry to develop innovative technologies within the topical areas described in subsection (b);
- (3) State and local governments to promote regionally-based commercialization and entrepreneurship; and
- (4) financing entities to guide successful technology commercialization.

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

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

(f) REVIEW.—The Secretary shall enter into an agreement with the National Academy of Sciences under which the Academy shall, not later than 3 and 6 years after the date of enactment of this Act—

- (1) review the performance of the Institutes under this section; and
- (2) submit to Congress and the Secretary a report describing the results of the review.

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

**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 through a competitive merit review process (involving written and oral interviews) that will result in a wide distribution of awards throughout the United States.

(2) CRITERIA.—The Secretary shall establish selection criteria for awarding fellowships 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 curricula and research at the institution of 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)—

- (1) shall administer the program established under this section; and,
- (2) may enter into a contract with a non-profit entity to administer the program, including the selection and award of fellowships.

(f) AUTHORIZATION OF APPROPRIATIONS.—

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

- (A) \$9,300,000 for 200 fellowships for fiscal year 2008;
- (B) \$14,500,000 for 300 fellowships for fiscal year 2009 (including non-expiring fellowships for prior fiscal years);
- (C) \$25,000,000 for 500 fellowships for fiscal year 2010 (including non-expiring fellowships for prior fiscal years); and
- (D) \$35,500,000 for 700 fellowships for fiscal year 2011 (including non-expiring fellowships for prior fiscal years).

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

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

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

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

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

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

(a) DEFINITION OF HIGH-RISK, HIGH-REWARD RESEARCH.—In this section, the term “high-risk, high reward research” means research that—

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

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

(3) is supportive of the missions of the sponsoring agency.

(b) ESTABLISHMENT OF GRANT PROGRAMS.—

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

(2) GEOLOGICAL GRANT PROGRAM.—The Director of the United States Geological Survey shall establish a grant program to encourage the conduct of high-risk, high-reward research at the United States Geological Survey.

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

(a) PURPOSE.—The purpose of this section is to promote scientific and academic excellence through collaborations between institutions of higher education and the National Laboratories.

(b) ESTABLISHMENT.—The Secretary shall establish a program to support the joint appointment of distinguished scientists by institutions of higher education and National Laboratories.

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

(d) SELECTION.—A distinguished scientist appointed under this section shall be selected through an open, competitive process.

(e) APPOINTMENT.—

(1) INSTITUTION OF HIGHER EDUCATION.—An appointment by an institution of higher education under this section shall be filled within the tenure allotment of the institution of

higher education at a minimum rank of professor.

(2) NATIONAL LABORATORY.—An appointment by a National Laboratory under this section shall be at the rank of the highest grade of distinguished scientist or technical staff of the National Laboratory.

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

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

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

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

(3) research-related equipment;

(4) professional travel; and

(5) such other requirements as the Director determines are necessary to carry out the purpose of the program.

(h) REVIEW.—

(1) IN GENERAL.—The appointment of a distinguished scientist under this section shall be reviewed at the end of the first 3-year allotment for the distinguished scientist through an open peer-review process to determine whether the appointment is meeting the purpose of this section under subsection (a).

(2) FUNDING.—Funding of the appointment of the distinguished scientist for the second 3-year allotment shall be determined based on the review conducted under paragraph (1).

(i) COST SHARING.—To be eligible for assistance under this section, an appointing institution of higher education shall pay at least 50 percent of the total costs of the appointment.

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized 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);

(2) \$60,000,000 for fiscal year 2009 (to support up to 60 such appointments); and

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

### DIVISION C—EDUCATION

#### SEC. 3001. FINDINGS.

Congress makes the following findings:

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

(2) The United States needs to build on and expand the impact of existing programs by taking additional, well-coordinated steps to ensure that all students are able to obtain the knowledge the students need to obtain postsecondary education and participate successfully in the workforce or the Armed Forces.

(3) The next steps must be informed by independent information on the effectiveness of current programs in science, technology, engineering, and mathematics education, and by identification of best practices that can be replicated.

(4) Teacher preparation and elementary school and secondary school programs and activities must be aligned with the requirements of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq.) and the requirements of the Higher Education Act of 1965 (20 U.S.C. 1001 et seq.).

(5) The ever increasing knowledge and skill demands of the 21st century require that secondary school preparation and requirements be better aligned with the knowledge and skills needed to succeed in postsecondary education and the workforce, and States need better data systems to track educational achievement from prekindergarten through baccalaureate degrees.

#### SEC. 3002. DEFINITIONS.

(a) 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 foreign language that the Secretary determines, in 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—Teachers for a 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, technology, or critical foreign language education for teachers in order to enhance the teachers' content knowledge and pedagogical skills; and

(3) to develop programs for 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 1124(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, engineering, science, or a critical foreign language) that includes teacher certification, for use in carrying out activities assisted under this subtitle.

(3) HIGH-NEED LOCAL EDUCATIONAL AGENCY.—The term "high-need local educational agency" means a local educational agency or educational service agency—

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

(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; and

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

(ii) for which there is a high teacher turnover rate or a high percentage of teachers with emergency, provisional, or temporary certification or licensure.

(4) HIGHLY QUALIFIED.—The term "highly qualified" has the meaning given such term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801) and, with respect to special education teachers, in section 602 of the Individuals with Disabilities Education Act (20 U.S.C. 1401).

(5) PARTNERSHIP.—The term "partnership" means a partnership that—

(A) shall include—

(i) an eligible recipient;

(ii)(I)(aa) a department within the eligible recipient that provides a program of study in mathematics, engineering, science, or a critical foreign language; and

(bb) a school or department within the eligible recipient that provides a teacher preparation program, or a 2-year institution of higher education that has a teacher preparation offering or a dual enrollment program with the eligible recipient; or

(II) a department or school within the eligible recipient with a competency-based degree program (in mathematics, engineering, science, 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

(B) 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—

(i) 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 to carry out this section under section 3116(1) and not reserved under section 3115(d) for a fiscal year, the Secretary is authorized to award grants, on a competitive basis, to eligible recipients to enable partnerships served by the eligible recipients to develop and implement programs to provide courses of study in mathematics, science, engineering, or critical foreign languages that—

(1) are integrated with teacher education; and

(2) lead to a baccalaureate degree with concurrent teacher certification.

(b) APPLICATION.—Each eligible recipient desiring 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 participating in the partnership 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 experiences or 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 providing student teaching 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) describe how program 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 program participants; and

(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, the extent to which the program succeeded in—

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

(ii) improving student 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 numbers of elementary school, middle school, and secondary school students enrolled in and continuing in critical foreign language courses;

(H) 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;

(I) provide ongoing activities and services to graduates of the program who teach elementary school, middle school, or secondary school, by—

(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; and

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

(d) **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 employment placement of program participants as teachers in schools determined by the partnership to be most in need;

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

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

(e) **TECHNICAL ASSISTANCE.**—From the funds made available under section 3116(1), the Secretary may provide technical assistance to an eligible recipient developing a baccalaureate degree program with concurrent teacher certification, including technical assistance provided through a grant or contract awarded on a competitive basis to an institution of higher education or a technical assistance center.

**SEC. 3114. PROGRAMS FOR MASTER'S DEGREES IN MATHEMATICS, SCIENCE, TECHNOLOGY, OR CRITICAL FOREIGN LANGUAGES EDUCATION.**

(a) **PROGRAM AUTHORIZED.**—From the amounts made available to carry out this section under section 3116(2) and not reserved under section 3115(d) for a fiscal year, the Secretary is authorized to award grants, on a competitive basis, to eligible recipients to enable the partnerships served by the eligible recipients to develop and implement—

(1) 2- or 3-year part-time master's degree programs in mathematics, science, technology, or critical foreign language education for teachers in order to enhance the teacher's content knowledge and teaching skills; or

(2) programs for professionals in mathematics, science, engineering, or critical foreign language that lead to a 1 year master's degree in teaching that results in teacher certification.

(b) **APPLICATION.**—Each eligible recipient desiring 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 describe—

(1) how a department of mathematics, science, engineering, technology, or a critical foreign language will ensure significant collaboration with a teacher preparation program in the development of the master's degree programs authorized under subsection (a), or how a department or school with a competency-based degree program has ensured, in the development of a master's degree program, the provision of rigorous studies in mathematics, science, or a critical foreign language that enhance the teachers' content knowledge and teaching skills;

(2) the role of the local educational agency in the partnership in developing and administering the program and how feedback from the local educational agency, school, and participants will be used to improve the program;

(3) how the program will help increase the percentage of highly qualified mathematics, science, or critical foreign language teachers, including increasing the percentage of such teachers teaching in schools determined by the partnership to be most in need;

(4) how the program will—

(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;

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

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

(7) how teachers (or mathematics, science, or critical language professionals) who are members of groups that are underrepresented in the teaching of mathematics, science, engineering, technology, or critical foreign languages and teachers from 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) how 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 develop and implement a 2- or 3-year part-time master's degree program in mathematics, science, or critical foreign language education for teachers in order to enhance the teachers' content knowledge and teaching skills, or programs for professionals in mathematics, science, or critical foreign language that lead to a 1-year master's degree in teaching that results in teacher certification. The program shall—

(1) promote effective teaching skills so that program participants become more effective mathematics, science, or critical foreign language teachers;

(2) prepare teachers to assume leadership roles in their schools by participating in activities such as teacher mentoring, development of curricula that integrate state of the

art applications of mathematics, science, technology, and engineering into the classroom, working with school administrators in establishing in-service professional development of teachers, and assisting in evaluating data and assessments to improve student academic achievement;

(3) use high-quality research, laboratory, or internship experiences for program participants that are integrated with coursework;

(4) provide student teaching or clinical classroom experience;

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

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

(7) encourage 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;

(8) offer tuition assistance, 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).

(d) **EVALUATION AND REPORT.**—Each eligible recipient receiving a grant under this section shall evaluate, using measurable objectives and benchmarks, and provide an annual report to the Secretary regarding, the extent to which the program assisted under this section succeeded in the following:

(1) Increasing the number and percentage of mathematics, science, engineering, technology, or critical foreign language teachers who have a master's degree and meet 1 or more of the following requirements:

(A) Are teaching in schools determined by the partnership to be most in need, and taught in such schools prior to participation in the program.

(B) Are teaching in schools determined by the partnership to be most in need, and did not teach in such schools prior to participation in the program.

(C) Are members of a group underrepresented in the teaching of mathematics, science, or a critical foreign language.

(2) Bringing professionals in mathematics, science, engineering, or critical foreign language into the field of teaching.

(3) Retaining teachers who participate in the program.

#### **SEC. 3115. GENERAL PROVISIONS.**

(a) **DURATION OF GRANTS.**—The Secretary shall award each grant under this subtitle for a period of not more than 5 years.

(b) **MATCHING REQUIREMENT.**—Each eligible recipient that receives a grant under this subtitle shall provide, from non-Federal sources, an amount equal to 50 percent of the amount of the grant (which may be provided in cash or in kind) to carry out the activities supported by the grant.

(c) **SUPPLEMENT, NOT SUPPLANT.**—Grant funds provided under this subtitle shall be used to supplement, and not supplant, other Federal or State funds.

(d) **EVALUATION.**—From amounts made available for any fiscal year under section

3116, the Secretary shall reserve such sums as may be necessary—

(1) to provide for the conduct of an annual independent evaluation, by grant or by contract, of the activities assisted under this subtitle, which shall include an assessment of the impact of the activities on student academic achievement; and

(2) to prepare and submit an annual report on the results of the evaluation described in paragraph (1) to the Committee on Health, Education, Labor, and Pensions 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.

#### **SEC. 3116. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated to carry out this section \$210,000,000 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 3113 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.

#### **Subtitle B—Advanced Placement and International Baccalaureate Programs**

##### **SEC. 3121. 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;

(2) to increase, to 700,000 per year, the number of students attending high-need 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) achieve a passing score on an examination 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 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. 3122. 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 administered 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—

(i) a national, regional, or statewide non-profit organization, with expertise and experience in providing Advanced Placement or International Baccalaureate services; and

(ii) a State educational agency or local educational agency.

(3) **LOW-INCOME STUDENT.**—The term “low-income student” has the meaning given the term “low-income individual” in section 1707(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6537(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. 6537(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 3112(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)(i) with a high concentration of low-income students; or

(ii) designated with a school locale code of 6, 7 or 8, as determined by the Secretary.

##### **SEC. 3123. ADVANCED PLACEMENT AND INTERNATIONAL BACCALAUREATE PROGRAMS.**

(a) **PROGRAM AUTHORIZED.**—From the amounts appropriated under subsection (1), the Secretary is authorized to award grants, on a competitive basis, to eligible entities to enable the eligible entities to carry out the authorized activities described in subsection (g).

(b) **DURATION OF GRANTS.**—The Secretary may award grants under this section for a period of not more than 5 years.

(c) **COORDINATION.**—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. 6535).

(d) **PRIORITY.**—In awarding grants under this section, the Secretary shall give priority to eligible entities that—

(1) are part of a statewide 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) make Advanced Placement math, science, and critical foreign language courses available to students who are prepared for such work in earlier grades than traditionally made available.

(e) **EQUITABLE DISTRIBUTION.**—The Secretary, to the extent practicable, shall—

(1) ensure an equitable geographic distribution of grants under this section among the States; and

(2) promote an increase in participation in Advanced Placement or International Baccalaureate mathematics, science, and critical foreign language courses and examinations in all States.

(f) **APPLICATION.**—

(1) **IN GENERAL.**—Each eligible entity 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 reasonably require.

(2) **CONTENTS.**—The application shall, at a minimum, include a description of—

(A) the goals and objectives for the project, including—

(i) increasing the number of teachers serving high-need schools who are qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages;

(ii) increasing the number of qualified teachers serving high-need schools who are teaching Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages to students in the high-need schools;

(iii) increasing the number of Advanced Placement or International Baccalaureate courses in mathematics, science, and critical foreign languages that are available to students attending high-need schools; and

(iv) increasing the number of students attending a high-need school, particularly low-income students, who enroll in and pass—

(I) Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages; and

(II) pre-Advanced Placement or pre-International Baccalaureate courses in such a subject (where provided in accordance with subparagraph (B));

(B) how the eligible entity will ensure that students have access to courses, including pre-Advanced Placement and pre-International Baccalaureate courses, that will prepare the students to enroll and succeed in Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages;

(C) how the eligible entity will provide professional development for teachers assisted under this section;

(D) how the eligible entity will ensure that teachers serving high-need schools are qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages;

(E) how the eligible entity will provide for the involvement of business and community organizations and other entities, including institutions of higher education, in the activities to be assisted; and

(F) how the eligible entity will use funds received under this section, including how the eligible entity will evaluate the success of its project.

(g) AUTHORIZED ACTIVITIES.—

(1) IN GENERAL.—Each eligible entity that receives a grant under this section shall use the grant funds to carry out activities designed to increase—

(A) the number of qualified teachers serving high-need schools who are teaching Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages; and

(B) the number of students attending high-need schools who enroll in, and pass, the examinations for such Advanced Placement or International Baccalaureate courses.

(2) PERMISSIVE ACTIVITIES.—The activities described in paragraph (1) may include—

(A) teacher professional development, in order to expand the pool of teachers in the participating State, local educational agency, or high-need school who are qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages;

(B) pre-Advanced Placement or pre-International Baccalaureate course development and professional development;

(C) coordination and articulation between grade levels to prepare students to enroll and succeed in Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages;

(D) purchase of instructional materials;

(E) activities to increase the availability of, and participation in, online Advanced Placement or International Baccalaureate

courses in mathematics, science, and critical foreign languages;

(F) reimbursing low-income students attending high-need schools for part or all of the cost of Advanced Placement or International Baccalaureate examination fees;

(G) carrying out subsection (j), relating to collecting and reporting data;

(H) in the case of a State educational agency that receives a grant under this section, awarding subgrants to local educational agencies to enable the local educational agencies to carry out authorized activities described in subparagraphs (A) through (G); and

(I) providing salary increments or bonuses to teachers serving high-need schools who—

(i) become qualified to teach, and teach, Advanced Placement or International Baccalaureate courses in mathematics, science, or a critical foreign language; or

(ii) increase the number of low-income students, who take Advanced Placement or International Baccalaureate examinations in mathematics, science, or a critical foreign language with the goal of successfully passing such examinations.

(h) MATCHING REQUIREMENT.—

(1) IN GENERAL.—Subject to paragraph (2), each eligible entity that receives a grant under this section shall provide, toward the cost of the activities assisted under the grant, from non-Federal sources, an amount equal to 200 percent of the amount of the grant, except that an eligible entity that is a high-need local educational agency shall provide an amount equal to not more than 100 percent of the amount of the grant.

(2) WAIVER.—The Secretary may waive all or part of the matching requirement described in paragraph (1) for any fiscal year for an eligible entity described in subparagraph (A) or (B) of section 3122(2), if the Secretary determines that applying the matching requirement to such eligible entity would result in serious hardship or an inability to carry out the authorized activities described in subsection (g).

(i) SUPPLEMENT NOT SUPPLANT.—Grant funds provided under this section shall be used to supplement, not supplant, other Federal and non-Federal funds available to carry out the activities described in subsection (g).

(j) COLLECTING AND REPORTING REQUIREMENTS.—

(1) REPORT.—Each eligible entity receiving a grant under this section shall collect and report to the Secretary annually such data on the results of the grant as the Secretary may reasonably require, including data regarding—

(A) the number of students enrolling in Advanced Placement or International Baccalaureate courses in mathematics, science, or a critical foreign language, and pre-Advanced Placement or pre-International Baccalaureate courses in such a subject, by the grade the student is enrolled in, and the distribution of grades those students receive;

(B) the number of students taking Advanced Placement or International Baccalaureate examinations in mathematics, science, or a critical foreign language, and the distribution of scores on those examinations by the grade the student is enrolled in at the time of the examination;

(C) the number of teachers receiving training in teaching Advanced Placement or International Baccalaureate courses in mathematics, science, or a critical foreign language who will be teaching such courses in the next school year;

(D) the number of teachers becoming qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science, or a critical foreign language; and

(E) the number of qualified teachers who are teaching Advanced Placement or International Baccalaureate courses in mathematics, science, or critical foreign languages to students in a high-need school.

(2) REPORTING OF DATA.—Each eligible entity receiving a grant under this section shall report data required under paragraph (1)—

(A) disaggregated by subject area;

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

(C) to the extent feasible, in a manner that allows comparison of conditions before, during, and after the project.

(k) EVALUATION AND REPORT.—From the amount made available for any fiscal year under subsection (1), the Secretary shall reserve such sums as may be necessary—

(1) to conduct an annual independent evaluation, by grant or by contract, of the program carried out under this section, which shall include an assessment of the impact of the program on student academic achievement; and

(2) to prepare and submit an annual report on the results of the evaluation described in paragraph (1) to the Committee on Health, Education, Labor, and Pensions 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.

(l) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$58,000,000 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years.

**Subtitle C—Promising Practices in Mathematics, Science, Technology, and Engineering 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 identify existing 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 with demonstrated evidence of increasing student academic achievement.

(2) 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 with expertise in education, mathematics, and science. The National Academy of Sciences shall ensure that the panel includes the following:

(A) A majority representation of teachers and principals directly involved in teaching mathematics, science, technology, or engineering in kindergarten through grade 12.

(B) Representation of teachers and principals from all demographic areas, 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 (1) shall be individuals who have substantial knowledge or experience relating to—

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

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

(d) **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.

(e) **DISSEMINATION.**—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.

(f) **MATHEMATICS, SCIENCE, TECHNOLOGY, AND ENGINEERING “PROMISING 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) reviewed 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.

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

## TITLE II—MATHEMATICS

### SEC. 3201. MATH NOW FOR ELEMENTARY SCHOOL AND MIDDLE SCHOOL STUDENTS PROGRAM.

(a) **PURPOSE.**—The purpose of this section is to enable all students to reach or exceed grade-level academic achievement standards and to prepare the students to enroll in and pass algebra courses by—

(1) improving instruction in mathematics for students in kindergarten through grade 9 through the implementation of mathematics programs and the support of comprehensive mathematics initiatives that are research-based and reflect a demonstrated record of effectiveness; and

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

(b) **DEFINITION OF ELIGIBLE LOCAL EDUCATIONAL AGENCY.**—In this section, the term “eligible local educational agency” means a high-need local educational agency (as defined in section 3112(3)) serving 1 or more schools—

(1) with significant numbers or percentages of students whose mathematics skills are below grade level;

(2) that are not making adequate yearly progress in mathematics under section 1111(b)(2) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(2)); or

(3) in which students are receiving instruction in mathematics from teachers who do not have mathematical content knowledge or expertise in the teaching of mathematics.

(c) **PROGRAM AUTHORIZED.**—

(1) **IN GENERAL.**—From the amounts appropriated under subsection (k) for any fiscal year, the Secretary is authorized to award grants, on a competitive basis, for not more than 5 years, to State educational agencies to enable the State educational agencies to award grants to eligible local educational agencies to carry out the activities described in subsection (e).

(2) **PRIORITY.**—In awarding grants under this section, the Secretary shall give priority to applications for projects that will implement statewide strategies for improving mathematics instruction and raising the mathematics achievement of students, particularly students in grades 4 through 8.

(d) **STATE USES OF FUNDS.**—

(1) **IN GENERAL.**—Each State educational agency that receives a grant under this section for a fiscal year—

(A) shall expend not more than a total of 10 percent of the grant funds to carry out the activities described in paragraphs (2) or (3) for the fiscal year; and

(B) shall use not less than 90 percent of the grant funds to award grants, on a competitive basis, to eligible local educational agencies to enable the eligible local educational agencies to carry out the activities described in subsection (e) for the fiscal year.

(2) **MANDATORY USES OF FUNDS.**—A State educational agency shall use the grant funds made available under paragraph (1)(A) to carry out each of the following activities:

(A) **PLANNING AND ADMINISTRATION.**—Planning and administration, including—

(i) evaluating applications from eligible local educational agencies using peer review teams described in subsection (f)(1)(D);

(ii) administering the distribution of grants to eligible local educational agencies; and

(iii) assessing and evaluating, on a regular basis, eligible local educational agency activities assisted under this section, with respect to whether the activities have been effective in increasing the number of children—

(I) making progress toward meeting grade-level mathematics achievement; and

(II) meeting or exceeding grade-level mathematics achievement.

(B) **REPORTING.**—Annually providing the Secretary with a report on the implementation of this section as described in subsection (i).

(3) **PERMISSIVE USE OF FUNDS; TECHNICAL ASSISTANCE.**—

(A) **IN GENERAL.**—A State educational agency may use the grant funds made available under paragraph (1)(A) for 1 or more of the following technical assistance activities that assist an eligible local educational agency, upon request by the eligible local educational agency, in accomplishing the tasks required to design and implement a project under this section, including assistance in—

(i) implementing mathematics programs or comprehensive mathematics initiatives that are research-based and reflect a demonstrated record of effectiveness;

(ii) evaluating and selecting diagnostic and classroom based instructional mathematics assessments; and

(iii) identifying eligible professional development providers to conduct the professional development activities described in subsection (e)(1)(B).

(B) **GUIDANCE.**—The technical assistance described in subparagraph (A) shall be guided by researchers with expertise in the pedagogy of mathematics, mathematicians, and mathematics educators from high-risk, high-achievement schools and eligible local educational agencies.

(e) **LOCAL USES OF FUNDS.**—

(1) **MANDATORY USES OF FUNDS.**—Each eligible local educational agency receiving a grant under this section shall use the grant funds to carry out each of the following activities:

(A) To implement mathematics programs or comprehensive mathematics initiatives—

(i) for students in the grades of a participating school as identified in the application submitted under subsection (f)(2)(A); and

(ii) that are research-based and reflect a demonstrated record of effectiveness.

(B) To provide professional development and instructional leadership activities for teachers and, if appropriate, for administrators and other school staff, on the implementation of comprehensive mathematics initiatives designed—

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

(ii) to improve the mathematical content knowledge of the teachers, administrators, and other school staff;

(iii) to increase the use of effective instructional practices; and

(iv) to monitor student progress.

(C) To conduct continuous progress monitoring, which may include the adoption and use of assessments that—

(i) measure student progress and identify areas in which students need help in learning mathematics; and

(ii) reflect mathematics content that is consistent with State academic achievement standards in mathematics described in section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)).

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

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

(B) implement classroom-based assessments, including diagnostic or formative assessments;

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

(D) provide small groups with individualized instruction in mathematics;

(E) conduct activities designed to improve the content knowledge and expertise of teachers, such as the use of a mathematics coach, enrichment activities, and interdisciplinary methods of mathematics instruction; and

(F) collect and report performance data.

(f) **APPLICATIONS.**—

(1) **STATE EDUCATIONAL AGENCY.**—Each State educational agency desiring 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 include—

(A) an assurance that the core mathematics instructional program, supplemental instructional materials, and intervention programs used by the eligible local educational agencies for the project, are research-based and reflect a demonstrated record of effectiveness and are aligned with State academic achievement standards;

(B) an assurance that eligible local educational agencies will meet the requirements described in paragraph (2);

(C) an assurance that local applications will be evaluated using a peer review process;

(D) a description of the qualifications of the peer review teams, 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; 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 under this title.

(2) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—Each eligible local educational agency desiring a grant 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 such demographic, socioeconomic, and mathematics achievement data as the State educational agency may request;

(D) a description of the core mathematics instructional program, supplemental instructional materials, and intervention 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;

(E) a description of the activities that will be carried out under the grant, including a description of the professional development that will be provided to teachers, and, if appropriate, administrators and other school staff, and a description of how the activities will support achievement of the purpose of this section;

(F) an assurance that the eligible local educational agency will report to the State educational agency all data on student academic achievement that is necessary for the State educational agency's report under subsection (i);

(G) 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.

(g) PROHIBITIONS.—

(1) IN GENERAL.—In implementing this section, the Secretary shall not—

(A) endorse, approve, or sanction any mathematics curriculum designed for use in any school; or

(B) engage in oversight, technical assistance, or activities that will require the adoption of a specific mathematics program or instructional materials by a State, local educational agency, or school.

(2) CONFLICT OF INTEREST.—Any Federal employee, contractor, or subcontractor involved in the administration, implementation, or provision of oversight or technical assistance duties or activities under this section shall—

(A) disclose to the Secretary any financial ties to publishers, entities, private individuals, or organizations that will benefit from funds provided under this section; and

(B) be prohibited from maintaining significant financial interests in areas directly re-

lated to duties or activities under this section, unless granted a waiver by the Secretary.

(3) REPORTING.—The Secretary shall report annually to the Committee on Health, Education, Labor, and Pensions of the Senate and to the Committee on Education and Labor of the House of Representatives on any of the special allowances or waivers granted under paragraph (2)(B).

(4) RULE OF CONSTRUCTION.—Nothing in this title shall be construed to authorize or permit the Department of Education, or a Department of Education contractor, to mandate, direct, control, or suggest the selection of a mathematics curriculum, supplemental instructional materials, or program of instruction by a State, local educational agency, or school.

(h) 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 of such 50 percent may be provided by local educational agencies within the State.

(2) WAIVER.—The Secretary may waive all or a portion of the matching requirement described in paragraph (1) for any fiscal year, if the Secretary determines that—

(A) the application of the matching requirement will result in serious hardship for the State educational agency; or

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

(i) PROGRAM PERFORMANCE AND ACCOUNTABILITY.—

(1) INFORMATION.—Each State educational agency receiving a grant under this section shall collect and report to the Secretary annually such information on the results of the grant as the Secretary may reasonably require, including information on—

(A) mathematics achievement data that show the progress of students participating in projects under this section (including, to the extent practicable, comparable data from students not participating in such projects), based primarily on the results of State, school district wide, or classroom-based, assessments, including—

(i) specific identification of those schools and eligible local educational agencies that report the largest gains in mathematics achievement; and

(ii) evidence on whether the State educational agency and eligible local educational agencies within the State have—

(I) significantly increased the number of students achieving at grade level or above in mathematics;

(II) significantly increased the percentages of students described in section 1111(b)(2)(C)(v)(II) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(2)(C)(v)(II)) who are achieving at grade level or above in mathematics;

(III) significantly increased the number of students making significant progress toward meeting grade-level mathematics achievement standards; and

(IV) successfully implemented this section;

(B) the percentage of students in the schools served by the eligible local educational agency who enroll in algebra courses and the percentage of such students who pass algebra courses; and

(C) the progress made in increasing the quality and accessibility of professional development and leadership activities in mathematics, especially activities resulting in greater content knowledge and expertise of teachers, administrators, and other school staff, except that the Secretary shall not re-

quire such information until after the third year of a grant awarded under this section.

(2) REPORTING AND DISAGGREGATION.—The information required under paragraph (1) shall be—

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

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

(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, which shall include 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 Pensions 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 (3) 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 summer learning opportunities described in subsection (d)(4)(A)(ii) to eligible students; and

(B) is—

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

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

(I) Another 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 enrichment 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” has the meaning given the term 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 means a local educational agency (as defined in section 9101 of the Elementary and Secondary Education Act of 1965)—

(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) with a total of 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 school locale 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) IN GENERAL.—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 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 grant program will be offered and the local 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 with eligible entities that are consortia described in subsection (b)(2)(B)(iii) and that proposes to target services to children in grades K–8.

(B) GEOGRAPHIC DISTRIBUTION.—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 grant 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 more than 50 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 OPPORTUNITY.—

(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 are 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 a summer learning 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 entity shall accept, enroll, and provide the summer learning opportunity of such entity to, any summer scholar assigned to such

summer learning opportunity by a State educational agency pursuant to this subsection.

(4) AGREEMENT WITH ELIGIBLE ENTITY.—

(A) IN GENERAL.—A State educational agency shall enter into an agreement with one or more eligible entities offering a summer learning opportunity, under which—

(i) the State educational agency 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—

(I) provides a total of not less than the equivalent of 30 full days of instruction (or not less than the equivalent of 25 full days of instruction, if the equivalent of an additional 5 days is devoted to field trips or other enrichment opportunities) to the summer scholar;

(II) employs small-group, research-based educational programs, materials, curricula, and practices;

(III) provides a curriculum that—

(aa) emphasizes mathematics, technology, engineering, and problem-solving through experiential learning opportunities;

(bb) is primarily designed to increase the numeracy and problem-solving skills of the summer scholar; and

(cc) is aligned with State academic content standards and goals of the local educational agency serving the summer scholar;

(IV) measures student progress to determine the gains made by summer scholars in the summer learning opportunity, and disaggregates the results of such progress for summer scholars by race and ethnicity, economic status, limited English proficiency status, and disability status, in order to determine the opportunity's impact on each subgroup of summer scholars;

(V) collects daily attendance data on each summer scholar;

(VI) provides professional development opportunities for teachers to improve their practice in teaching numeracy, and in integrating problem-solving techniques into the curriculum; and

(VII) meets all applicable Federal, State, and local civil rights laws.

(B) AMOUNT OF PAYMENT.—

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

(ii) 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.

(5) ADMINISTRATIVE COSTS.—A State educational agency or eligible entity receiving funding under this section may use not more than 5 percent of such funding for administrative costs associated with carrying out this section.

(e) EVALUATIONS; REPORT; WEBSITE.—

(1) EVALUATION AND ASSESSMENT.—For each year that an eligible entity enters into an agreement under subsection (d)(4), the eligible entity shall prepare and submit to the Secretary a report on the activities and outcomes of each summer learning opportunity that enrolled a summer scholar, including—

(A) information on the design of the summer learning opportunity;

(B) the alignment of the summer learning opportunity with State standards; and

(C) data from assessments of student mathematics and problem-solving skills for the summer scholars and on the attendance of

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 prepare and submit 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 in 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 who are struggling with mathematics and whose achievement is significantly below grade level; and

(4) to provide in-service training for mathematics coaches who 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 funds, under part A of 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 teacher, with a demonstrated effectiveness in teaching mathematics to students with specialized needs in mathematics and improving student academic achievement in mathematics, a command of mathematical content knowledge, and the ability to work with classroom teachers to improve the teachers' instructional techniques 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 provide or assess 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) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as be necessary for fiscal year 2008 and each of the 3 succeeding fiscal years.

(d) GRANTS AUTHORIZED.—

(1) IN GENERAL.—From funds appropriated under subsection (c) for a fiscal year, the Secretary shall establish a program, in accordance with the requirements of this section, that will provide grants on a competitive basis to State educational agencies to award grants and subgrants 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 ½ 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 (1)(3) 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 among students in secondary school 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 9302 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, if requested, in any 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 screening, diagnostic, and classroom-based instructional mathematics assessments.

(iii) How the State educational agency will help eligible local educational agencies identify high-quality research-based mathematics materials and programs.

(iv) 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 that professional development funded under this section—

(I) is based on mathematics research;

(II) will effectively improve instructional practices for mathematics for secondary school students;

(III) will improve student academic achievement in mathematics; and

(IV) is coordinated with professional development activities funded through other programs, including section 2113 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6613).

(vi) How funded activities will help teachers and other instructional staff to implement research-based components of mathematics instruction and improve student academic achievement.

(vii) The subgrant process the State educational agency will use to ensure that eligible local educational agencies receiving subgrants implement programs and practices based on mathematics research.

(viii) How the State educational agency will build on and promote coordination among 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 regularly assess 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 or 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 (1); and

(3) use 20 percent of the grant funds received under this section—

(A) to carry out State-level activities described in the application submitted under subsection (g);

(B) to provide—

(i) technical assistance to eligible local educational agencies; and

(ii) high-quality professional development to teachers and mathematics coaches in the State;

(C) to oversee and evaluate subgrant services and activities undertaken by the eligible local educational agencies as described in subsection (1)(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.

(j) PROHIBITIONS.—

(1) IN GENERAL.—In implementing this section, the Secretary shall not—

(A) endorse, approve, or sanction any mathematics curriculum designed for use in any school; or

(B) engage in oversight, technical assistance, or activities that will require the adoption of a specific mathematics program or instructional materials by a State, local educational agency, or school.

(2) CONFLICT OF INTEREST.—Any federal employee, contractor, or subcontractor involved in the administration, implementation, or provision of oversight or technical assistance duties or activities under this section shall—

(A) disclose to the Secretary any financial ties to publishers, entities, private individuals, or organizations that will benefit from funds provided under this section; and

(B) be prohibited from maintaining significant financial interests in areas directly related to duties or activities under this section, unless granted a waiver by the Secretary.

(3) REPORTING.—The Secretary shall report annually to the Committee on Health, Education, Labor, and Pensions of the Senate, 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 a Department of Education contractor, to mandate, direct, control, or suggest the selection of a mathematics curriculum, supplemental instructional materials, or program of instruction by a State, local educational agency, or school.

(k) SUPPLEMENT NOT SUPPLANT.—Each State educational agency receiving a grant under this section shall use the grant funds to supplement, not supplant, State funding for activities authorized under this section or for other educational activities.

(l) SUBGRANTS TO ELIGIBLE LOCAL EDUCATIONAL AGENCIES.—

(1) APPLICATION.—

(A) IN GENERAL.—Each eligible local educational agency desiring a subgrant under this subsection shall submit an application to the State educational agency in the form and according to the schedule established by the State educational agency.

(B) CONTENTS.—In addition to any information required by the State educational agency, each application under paragraph (1) shall demonstrate how the eligible local educational agency will carry out the following required activities:

(i) Development or selection and implementation of research-based mathematics assessments.

(ii) Development or selection and implementation of research-based mathematics programs, including programs for students with disabilities and students with limited English proficiency.

(iii) Selection of instructional materials based on mathematics research.

(iv) High-quality professional development for mathematics coaches and teachers based on mathematics research.

(v) Evaluation and assessment strategies.

(vi) Reporting.

(vii) Providing access to research-based mathematics materials.

(C) CONSORTIA.—Consistent with State law, an eligible local educational agency may apply to the State educational agency for a subgrant as a member of a consortium of local educational agencies if each member of the consortium is an eligible local educational agency.

(2) AWARD BASIS.—

(A) PRIORITY.—A State educational agency awarding subgrants under this subsection shall give priority to eligible local educational agencies that—

(i) are among the local educational agencies in the State with the lowest graduation rates, as described in section 1111(b)(2)(C)(vi) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(2)(C)(vi)); and

(ii) have the highest number or percentage of students who are counted under section 1124(c) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6333(c)).

(B) AMOUNT OF GRANTS.—Subgrants under this subsection shall be of sufficient size and scope to enable eligible local educational agencies to fully implement activities assisted under this subsection.

(3) LOCAL USE OF FUNDS.—Each eligible local educational agency receiving a subgrant under this subsection shall use the subgrant funds to carry out, at the secondary school level, the following services and activities:

(A) Hiring mathematics coaches and providing professional development for mathematics coaches—

(i) at a level to provide effective coaching to classroom teachers;

(ii) to work with classroom teachers to better assess student academic achievement in mathematics;

(iii) to work with classroom teachers to identify students with mathematics problems and, where appropriate, refer students to available programs for remediation and additional services;

(iv) to work with classroom teachers to diagnose and remediate mathematics difficulties of the lowest-performing students, so that those teachers can provide intensive, research-based instruction, including during after-school and summer sessions, geared toward ensuring that those students can access and be successful in rigorous academic coursework; and

(v) to assess and organize student data on mathematics and communicate that data to school administrators to inform school reform efforts.

(B) Reviewing, analyzing, developing, and, where possible, adapting curricula to make sure mathematics skills are taught within other core academic subjects.

(C) Providing mathematics professional development for all relevant teachers in secondary school, as necessary, that addresses both remedial and higher level mathematics skills for students in the applicable curriculum.

(D) Providing professional development for teachers, administrators, and paraprofessionals serving secondary schools to help the teachers, administrators, and paraprofessionals improve student academic achievement in mathematics.

(E) Procuring and implementing programs and instructional materials based on mathematics research, including software and other education technology related to mathematics instruction with demonstrated effective-

ness in improving mathematics instruction and student academic achievement.

(F) Building on and promoting coordination among mathematics programs in the eligible local educational agency to increase overall effectiveness in—

(i) improving mathematics instruction; and

(ii) increasing student academic achievement, including for students with disabilities and students with limited English proficiency.

(G) Evaluating the effectiveness of the instructional strategies, teacher professional development programs, and other interventions that are implemented under the subgrant; and

(H) Measuring improvement in student academic achievement, including through progress monitoring or other assessments.

(4) SUPPLEMENT NOT SUPPLANT.—Each eligible local educational agency receiving a subgrant under this subsection shall use the subgrant funds to supplement, not supplant, the eligible local educational agency's funding for activities authorized under this section or for other educational activities.

(5) NEW SERVICES AND ACTIVITIES.—Subgrant funds provided under this subsection may be used only to provide services and activities authorized under this section that were not provided on the day before the date of enactment of this Act.

(6) EVALUATIONS.—Each eligible local educational agency receiving a grant under this subsection shall participate, as requested by the State educational agency or the Secretary, in reviews and evaluations of the programs of the eligible local educational agency and the effectiveness of such programs, and shall provide such reports as are requested by the State educational agency and the Secretary.

(m) MATCHING REQUIREMENTS.—

(1) STATE EDUCATIONAL AGENCY REQUIREMENTS.—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 of such 50 percent may be provided by local educational agencies within the State.

(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—

(A) the application of the matching requirement will result in serious hardship for the State educational agency; or

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

(n) PROGRAM PERFORMANCE AND ACCOUNTABILITY.—

(1) INFORMATION.—Each State educational agency receiving a grant under this section shall collect and report to the Secretary annually such information on the results of the grant as the Secretary may reasonably require, including information on—

(A) mathematics achievement data that show the progress of students participating in projects under this section (including, to the extent practicable, comparable data from students not participating in such projects), based primarily on the results of State, school districtwide, or classroom-based monitoring reports or assessments, including—

(i) specific identification of those schools and eligible local educational agencies that report the largest gains in mathematics achievement; and

(ii) evidence on whether the State educational agency and eligible local educational agencies within the State have—

(I) significantly increased the number of students achieving at the proficient or advanced level on the State student academic achievement standards in mathematics under section 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 described in section 1111(b)(2)(C)(v)(II) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(2)(C)(v)(II)) who are achieving proficiency or advanced levels on such State academic content standards in mathematics;

(III) significantly increased the number of students making significant progress toward meeting such State academic content and achievement 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, especially activities resulting in greater content knowledge and expertise of teachers, administrators, and other school staff, except that the Secretary shall not require such information until after the third year of a grant awarded under this section.

(2) REPORTING AND DISAGGREGATION.—The information required under paragraph (1) shall be—

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

(B) disaggregated in the same manner as information is disaggregated under section 1111(h)(1)(C)(i) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(h)(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 critical to the Nation's security.

(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 postsecondary education.

(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 level 3, the professional working level, as measured by the Federal Interagency Language Roundtable (ILR) or by other generally recognized measures of superior standards.

**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) how each of the partners will be involved in planning, developing, and implementing—

(I) program curriculum and materials; and (II) teacher professional development;

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

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

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

(C) identify target proficiency levels for students at critical 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 use the results of the assessments to ensure continuous 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 diagnostic assessments for placement purposes, customized and individualized language learning opportunities, and experimental and interdisciplinary language learning; and

(iii) identify and describe how the partnership will work with institutions of higher education outside the partnership to provide participating students with multiple options for postsecondary education consistent with the purposes of this title;

(E) describe how the partnership will support and continue the program after the grant has expired, including how the partnership will seek support from other sources, such as State and local governments, foundations, and the private sector; and

(F) describe what assessments will be used or, if assessments not available, how assessments will be developed.

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

(1) shall be used 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; and

(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 professional development directly related to the purposes of this title at the elementary school through secondary school levels;

(B) development of appropriate assessments;

(C) opportunities for maximum language exposure for students in the program, such as the creation of immersion environments (such as language houses, language tables, immersion classrooms, and weekend and summer experiences) and special tutoring and academic support;

(D) dual language immersion programs;

(E) scholarships and study-abroad opportunities, related to the program, for postsecondary students and newly recruited teachers who have advanced levels of proficiency in a critical foreign language, except that not more than 20 percent of the grant funds provided to an eligible recipient under this section for a fiscal year may be used to carry out this subparagraph;

(F) activities to encourage community involvement to assist in meeting the purposes of this title;

(G) summer institutes for students and teachers;

(H) bridge programs that allow dual enrollment for secondary school students in institutions of higher education;

(I) programs that expand the understanding and knowledge of historic, geographic, and contextual factors within countries with populations who speak critical foreign languages, if such programs are carried out in conjunction with language instruction;

(J) research on, and evaluation of, the teaching of critical foreign languages;

(K) data collection and analysis regarding the results of—

(i) various student recruitment strategies;

(ii) program design; and

(iii) curricular approaches;

(L) the impact of the strategies, program design, and curricular approaches described in subparagraph (K) on increasing—

(i) the number of students studying critical foreign languages; and

(ii) the proficiency of the students in the critical foreign languages; and

(M) distance learning projects for critical foreign language learning.

(d) MATCHING REQUIREMENT.—

(1) IN GENERAL.—An eligible recipient that receives a grant under this title shall provide, toward 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;

(B) 30 percent of the amount of the grant payment for the second such fiscal year;

(C) 40 percent of the amount of the grant payment for the third such fiscal year; and

(D) 50 percent of the amount of the grant payment for each of the fourth and fifth such fiscal years.

(2) **NON-FEDERAL SHARE.**—The non-Federal share required under paragraph (1) may be provided in cash or in-kind.

(3) **WAIVER.**—The Secretary may waive all or part of the matching requirement of paragraph (1), for any fiscal year, if the Secretary determines that—

(A) the application of the matching requirement will result in serious hardship for the partnership; or

(B) the waiver will best serve the purposes of this title.

(e) **SUPPLEMENT NOT SUPPLANT.**—Grant funds provided under this title shall be used to supplement, not supplant, other Federal and non-Federal funds available to carry out the activities described in subsection (c).

(f) **TECHNICAL ASSISTANCE.**—The Secretary shall enter into a contract to establish a technical assistance center to provide technical assistance to partnerships developing critical foreign language programs assisted under this section. The center shall—

(1) assist the partnerships in the development of critical foreign language instructional materials and assessments; and

(2) disseminate promising foreign language instructional practices.

(g) **PROGRAM EVALUATION.**—

(1) **IN GENERAL.**—The Secretary may reserve not more than 5 percent of the total amount appropriated for this title for any fiscal year to annually evaluate the programs under this title.

(2) **REPORT.**—The Secretary shall prepare and annually submit, to the Committee on Health, Education, Labor, and Pensions 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 any program evaluation conducted under this subsection.

**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 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.**

(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 academic 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—

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

(ii) the 21st century workforce; or

(iii) the Armed Forces; and

(3) 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” has the meaning given the term 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 that—

(A) shall include—

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

(ii) the heads of the State systems for public higher education, or, if such a position does not exist, not less than 1 representative of a public degree-granting institution of higher education;

(iii) a representative of the agencies in the State that administer Federal or State-funded early childhood education programs;

(iv) not less than 1 representative of a public community college;

(v) not less than 1 representative of a technical school;

(vi) not less than 1 representative of a public secondary school;

(vii) the chief State school officer;

(viii) the chief executive officer of the State higher education coordinating board;

(ix) not less than 1 public elementary school teacher employed in the State;

(x) not less than 1 early childhood educator in the State;

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

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

(xiii) 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, a dean or 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—

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

(2) to establish or improve a statewide P-16 education data system.

(d) **PERIOD OF GRANTS; NON-RENEWABILITY.**—

(1) **GRANT PERIOD.**—The Secretary shall award a grant under this section for a period of not more than 3 years.

(2) **NON-RENEWABILITY.**—The Secretary shall not award a State more than 1 grant under this section.

(e) **AUTHORIZED ACTIVITIES.**—

(1) **GRANTS FOR P-16 ALIGNMENT.**—Each State receiving a grant under subsection (c)(1)—

(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-

force, and the Armed Forces need to have in order to succeed without any remediation based on detailed requirements obtained from institutions of higher education, employers, and the Armed Forces;

(ii) identifying and making changes that need to be made to a State's secondary school graduation requirements, academic content standards, academic achievement standards, and assessments preceding graduation from 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 in the Armed Forces without the need for remediation;

(iii) 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

(II) transcend any single system of education's ability to address; and

(iv) implementing activities designed to ensure the enrollment of all elementary school and secondary school students in rigorous coursework, which may include—

(I) specifying the courses and performance levels necessary for acceptance into institutions of higher education; and

(II) developing or providing guidance to local educational 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) may 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 standards, and assessments for students 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 addressing teacher certification needs; or

(v) 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—

(i) provides each student, upon enrollment in a public elementary school or secondary school in the State, with a unique identifier, such as a bar code, that—

(I) does not permit a student to be individually identified by users of the system; and

(II) is retained throughout the student's enrollment in P-16 education in the State; and

(ii) meets the requirements of subparagraphs (B) through (E).

(B) IMPROVEMENT OF EXISTING SYSTEM.—Each State that receives a grant under subsection (c)(2) for the improvement of a statewide P-16 education data system may employ, coordinate, or revise an existing statewide data system to establish a statewide longitudinal P-16 education data system that meets the requirements of subparagraph (A), if the statewide longitudinal P-16 education data system produces valid and reliable data.

(C) PRIVACY AND ACCESS TO DATA.—

(i) IN GENERAL.—Each State that receives a grant under subsection (c)(2) shall implement measures to—

(I) limit the State's use of information in the statewide P-16 education data system to the purposes and functions for use of such information set forth in Federal or State law regarding education and allow access to the information in the statewide data system only to those State employees, and only on such terms, as may be necessary to fulfill those purposes and functions;

(II) prohibit the disclosure of information in the statewide P-16 education data system to any other person, agency, institution, or entity, except to the extent necessary to assist the State in fulfilling the purposes and functions for use of such information set forth in Federal or State law regarding education, and only if such party has signed a data use agreement that—

(aa) prohibits the party from further disclosing the information;

(bb) prohibits the party from using the information for any purpose other than the purpose specified in the agreement, which purpose must relate to assisting the State in carrying out the purposes and functions for use of such information set forth in Federal or State law regarding education; and

(cc) requires the party to destroy the information when the purpose for which the disclosure was made is accomplished;

(III) keep an accurate accounting of the date, nature, and purpose of each disclosure of information in the statewide P-16 education data system, and the name and address of the person, agency, institution, or entity to whom the disclosure is made, which accounting shall be made available on request to parents of any student whose information has been disclosed;

(IV) maintain adequate security measures to ensure the confidentiality and integrity of the data system;

(V) ensure that the statewide P-16 education data system meets any further requirements of the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g);

(VI) where rights are provided to parents under this clause, provide those rights to the student instead of the parent if the student has reached the age of 18 or is enrolled in a postsecondary educational institution; and

(VII) ensure adequate enforcement of the requirements of this clause.

(ii) USE OF UNIQUE IDENTIFIERS.—

(I) GOVERNMENTAL USE OF UNIQUE IDENTIFIERS.—It shall be unlawful for any Federal, State, or local governmental agency to use the unique identifiers employed in the statewide P-16 education data systems for any purpose other than as authorized by Federal or State law regarding education, or to deny any individual any right, benefit, or privilege provided by law because of such individual's refusal to disclose the individual's unique identifier.

(II) REGULATIONS.—Not later than 180 days after the date of enactment of this Act, the

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, including, where necessary, regulations requiring States desiring grants for statewide P-16 education data systems under this section to implement specified 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:

(i) PRESCHOOL 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) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs;

(IV) the capacity to communicate with higher education data systems; and

(V) a State data audit system assessing data quality, validity, and reliability.

(ii) PRESCHOOL THROUGH GRADE 12 EDUCATION.—With respect to preschool through grade 12 education—

(I) 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));

(II) information on students not tested by grade and subject;

(III) a teacher identifier system with the ability to match teachers to students;

(IV) student-level transcript information, including information on courses completed and grades earned; and

(V) student-level college readiness test scores.

(iii) POSTSECONDARY EDUCATION.—With respect to postsecondary education, data that provide—

(I) information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; and

(II) other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

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

(i) identify factors that correlate to students' ability to successfully engage in and complete postsecondary-level general education coursework without the need for prior developmental coursework;

(ii) 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

(iii) use the data in the system to otherwise inform education policy and practice in order to better align State academic content standards, and curricula, with the demands of postsecondary education, the 21st century workforce, and the Armed Forces.

(f) APPLICATION.—

(1) IN GENERAL.—Each State desiring a grant under this section shall submit an application to the Secretary at such time, in such manner, and containing such informa-

tion as the Secretary may reasonably require.

(2) APPLICATION CONTENTS.—Each application submitted under this section shall specify whether the State application is for the conduct P-16 education alignment activities, or the establishment or improvement of a statewide P-16 education data system. The application shall include, at a minimum, the following:

(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.

(B) A description of how the concerns and interests of the larger education community, including parents, students, teachers, teacher educators, principals, and preschool 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—

(i) a description of the privacy protection and enforcement measures that the State has implemented or will implement pursuant to subparagraph (C), and assurances that these measures will be in place prior to the establishment or improvement of the statewide P-16 education data system; and

(ii) an assurance that the State will continue to fund the statewide P-16 education data system after the end of the grant period.

(g) SUPPLEMENT NOT SUPPLANT.—Grant funds provided under this section shall be used to supplement, not supplant, other Federal, State, and local funds available to carry out the authorized activities described in subsection (e).

(h) MATCHING REQUIREMENT.—Each State that receives a grant under this section shall provide, from non-Federal sources, an amount equal to 100 percent of the amount of the grant, in cash or in kind, to carry out the activities supported by the grant.

(i) RULE OF CONSTRUCTION.—Nothing in this section shall be construed to require States to provide raw data to the Secretary.

(j) AUTHORIZATION 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. 3501. 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(3)), 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 grant is awarded, as compared to the school year preceding the 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 low income students as defined in section 1707(2) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6537(3)), in each State whose students demonstrate the most 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, as compared to the school year preceding the school year for which the grant is awarded.

(b) GRANT AMOUNT.—The amount of each grant awarded under this section shall be \$50,000.

#### SEC. 3502. AUTHORIZATION OF APPROPRIATIONS.

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

#### DIVISION D—NATIONAL SCIENCE FOUNDATION

#### SEC. 4001. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There are authorized to be appropriated to the National Science Foundation—

- (1) \$6,729,000,000 for fiscal year 2008;
- (2) \$7,738,000,000 for fiscal year 2009;
- (3) \$8,899,000,000 for fiscal year 2010; and
- (4) \$10,234,000,000 for fiscal year 2011.

#### (b) PLAN FOR INCREASED RESEARCH.—

(1) IN 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 Commerce, Science, and Transportation 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, and strengthening innovation by 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) 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 at the National Science Foundation in improving science, technology, engineering, and mathematics education at the elementary, secondary, and postsecondary school levels 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 for the 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 2011, an amount equal to \$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 or nationals 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 during each of the fiscal years 2008 through 2011, the following:

- (A) \$24,000,000 for fiscal year 2008.
- (B) \$36,000,000 for fiscal year 2009.
- (C) \$48,000,000 for fiscal year 2010.
- (D) \$60,000,000 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 grants 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 grants to additional individuals under the Integrative Graduate Education and Research Traineeship program during each of the fiscal years 2008 through 2011, the following:

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

(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) AVAILABILITY.—The Director shall make the clearinghouse of program elements developed under paragraph (1) available to in-

stitutions of higher education that are developing professional science master's degree programs.

(b) PROGRAMS.—

(1) PROGRAMS AUTHORIZED.—The Director shall award grants to 4-year institutions of higher education to facilitate the institutions' creation or improvement 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 at 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;

(B) the 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 all forms of Federal assistance available to such students, including applicable graduate fellowships and student financial assistance under titles IV and VII of the Higher Education Act of 1965 (20 U.S.C. 1070 et seq., 1133 et seq.).

(3) PREFERENCES.—The Director shall give preference in making awards to 4-year institutions of higher education seeking Federal funding to create or improve professional science master's degree programs, to those applicants—

(A) located in States with low percentages of citizens with graduate or professional degrees, as determined by the Bureau of the Census, that demonstrate success in meeting the unique needs of the corporate, non-profit, and government communities in the State, as evidenced by providing internships for professional science master's degree students or similar partnership arrangements; or

(B) that secure more than ⅓ of the funding for such professional science master's degree programs from sources other than the Federal Government.

(4) NUMBER OF GRANTS; TIME PERIOD OF GRANTS.—

(A) NUMBER OF GRANTS.—Subject to the availability of appropriated funds, the Director shall award grants under paragraph (1) to a maximum of 200 4-year institutions of higher education.

(B) TIME PERIOD OF GRANTS.—Grants awarded under this section shall be for one 3-year term. Grants may be renewed only once for a maximum of 2 additional years.

(5) EVALUATION AND REPORTS.—

(A) DEVELOPMENT OF PERFORMANCE BENCHMARKS.—Prior to the start of the grant program, the Director of the National Science Foundation, 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, shall develop performance benchmarks to evaluate the pilot programs assisted by grants under this section.

(B) EVALUATION.—For each year of the grant period, the Director, in consultation with 4-year institutions of higher education (including applicable graduate schools and academic departments), and industries and Federal agencies that employ science-trained personnel, shall complete an evaluation of each program assisted by grants under this section. Any program that fails to satisfy the performance benchmarks developed under subparagraph (A) shall not be eligible for further funding.

(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 the 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” has the meaning given that term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(d) AUTHORIZATION OF APPROPRIATIONS.—Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated to carry out this section—

- (1) \$15,000,000 for fiscal year 2008;
- (2) \$18,000,000 for fiscal year 2009; and
- (3) \$20,000,000 for each of the fiscal years 2010 and 2011.

**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 talent expansion program under section 8(7) of the National Science Foundation Authorization Act of 2002 (Public Law 107-368, 116 Stat. 3042)—

- (1) \$40,000,000 for fiscal year 2008;
- (2) \$45,000,000 for fiscal year 2009;
- (3) \$50,000,000 for fiscal year 2010; and
- (4) \$55,000,000 for fiscal year 2011.

(b) PROMOTING OUTREACH AND HIGH QUALITY.—Section 8(7)(C) of the National Science Foundation Authorization Act of 2002 (Public Law 107-368, 116 Stat. 3042) is amended—

(1) by redesignating clauses (i) through (vi) as subclauses (I) through (VI), respectively, and indenting appropriately;

(2) by striking “include those that promote high quality—” and inserting “include programs that—

- “(i) promote high-quality—”;
- (3) in clause (i) (as inserted by paragraph (2))—

(A) in subclause (III) (as redesignated by paragraph (1)), by striking “for students;” and inserting “for students, especially underrepresented minority and female mathematics, science, engineering, and technology students;”;

(B) in subclause (V) (as redesignated by paragraph (1)), by striking “and” after the semicolon;

(C) in subclause (VI) (as redesignated by paragraph (1)), by striking “students.” and inserting “students; and”;

- (D) by adding at the end the following:
  - “(VII) outreach programs that provide middle and secondary school students and their science, technology, and math teachers opportunities to increase the students’ and teachers’ exposure to engineering and technology;”;

- (4) by adding at the end the following:
  - “(ii) finance summer internships for mathematics, science, engineering, and technology undergraduate students;
  - “(iii) facilitate the hiring of additional mathematics, science, engineering, and technology faculty; and
  - “(iv) serve as bridges to enable underrepresented minority and female secondary school students to obtain extra mathematics, science, engineering, and technology training prior to entering an institution of higher education.”.

**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, competitiveness, the physical and natural sciences, technology, engineering, and mathematics.

(b) PRIORITY TREATMENT.—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 Activities Account, that can be expected to make contributions in physical or natural science, technology, engineering, or mathematics, or that enhance competitiveness or innovation in the United States.

(c) LIMITATION.—Nothing in this section shall be construed to inhibit the grant selection process for funding other areas of research deemed by the National Science Foundation to be consistent with its mandate nor to change the core mission of the National Science Foundation.

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

Nothing in this division or division A, or the amendments made by this division or division A, shall be interpreted to require or recommend that the National Science Foundation—

- (1) alter or modify its merit-review system or peer-review process; or
- (2) exclude the awarding of any proposal by means of the merit-review or peer-review process.

**SEC. 4008. EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH.**

Within the amounts authorized to be appropriated by section 4001, there are authorized to be appropriated to the National Science Foundation for the Experimental Program to Stimulate Competitive Research authorized under section 113 of the National Science Foundation Authorization Act of 1988 (42 U.S.C. 1862g), for fiscal year 2008, \$125,000,000, and, for each of fiscal years 2009 through 2011, an amount equal to \$125,000,000 increased for each such year by an amount equal to the percentage increase in the appropriation for the National Science Foundation for such fiscal year above the total amount appropriated to the National Science Foundation for fiscal year 2008.

**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 in science, technology, engineering, or mathematics programs of study in secondary school, community college, undergraduate or graduate school with mentors who are working in industry.

(b) ADDITIONAL LEARNING PROGRAM.—The Director shall also establish a program to provide grants to community colleges 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) annually and report the findings and conclusions of the evaluations annually to Congress.

**SEC. 4010. CYBERINFRASTRUCTURE.**

In order to continue and expand efforts to ensure that research institutions throughout the Nation can fully participate in research programs of the National Science Foundation and collaborate with colleagues throughout the nation, the Director of the National Science Foundation, within 180 days after the date of enactment of this Act, shall develop and publish a plan that describes the current status of broadband access for scientific research purposes in States located in EPSCoR-eligible jurisdictions and outlines actions which can be taken to ensure that such connections are available to enable participation in those National Science Foundation programs which rely heavily on high-speed networking and collaborations across institutions and regions.

**SEC. 4011. FEDERAL INFORMATION AND COMMUNICATIONS TECHNOLOGY RESEARCH.**

(a) ADVANCED INFORMATION AND COMMUNICATIONS TECHNOLOGY RESEARCH.—

(1) NATIONAL SCIENCE FOUNDATION INFORMATION AND COMMUNICATIONS TECHNOLOGY RESEARCH.—The Director of the National Science Foundation shall establish a program of basic research in advanced information and communications technologies focused on enhancing or facilitating the availability and affordability of advanced communications services to all people of the United States. In developing and carrying out the program, the Director shall consult with the Board established under paragraph (2).

(2) FEDERAL ADVANCED INFORMATION AND COMMUNICATIONS TECHNOLOGY RESEARCH BOARD.—There is established within the National Science Foundation a Federal Advanced Information and Communications Technology Research Board (referred to in this subsection as “the Board”) which shall advise the Director of the National Science Foundation in carrying out the program authorized under paragraph (1). The Board shall be composed of individuals with expertise in information and communications technologies, including representatives from the National Telecommunications and Information Administration, the Federal Communications Commission, the National Institute of Standards and Technology, and the Department of Defense, and representatives from industry and educational institutions.

(3) GRANT PROGRAM.—The Director of the National Science Foundation, in consultation with the Board, shall award grants for basic research into advanced information and communications technologies that will contribute to enhancing or facilitating the availability and affordability of advanced communications services to all people of the United States. Areas of research to be supported through the grants include—

- (A) affordable broadband access, including wireless technologies;
- (B) network security and reliability;
- (C) communications interoperability;
- (D) networking protocols and architectures, including resilience to outages or attacks;
- (E) trusted software;
- (F) privacy;
- (G) nanoelectronics for communications applications;
- (H) low-power communications electronics;
- (I) implementation of equitable access to national advanced fiber optic research and educational networks in noncontiguous States; and
- (J) such other related areas as the Director, in consultation with the Board, finds appropriate.

(4) CENTERS.—The Director shall award multiyear grants, subject to the availability of appropriations, to institutions of higher

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, or consortia thereof to establish multidisciplinary 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 such grants may partner with 1 or more government laboratories or for-profit entities, or other institutions of higher education or nonprofit research institutions.

(5) **APPLICATIONS.**—The Director of the National Science Foundation, 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 communications 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.**—Section 10 of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n-1) is amended—

(1) in the section heading, by striking “**SCHOLARSHIP**” and inserting “**TEACHER**”;

(2) in subsection (a)—

(A) in paragraph (1)—

(i) by striking “(or consortia of such institutions)” and inserting “, consortia of such institutions, or partnerships”;

(ii) by striking “to provide scholarships, stipends, and programming designed”;

(iii) by inserting “and to provide scholarships, stipends, or fellowships to individuals participating in the program” after “science teachers”; and

(iv) by striking “Scholarship” and inserting “Teacher”;

(B) in paragraph (3)—

(i) in the matter preceding subparagraph (A), by striking “or consortia” and inserting “consortia, or partnerships”;

(ii) in subparagraph (A)—

(I) in the matter preceding clause (i)—

(aa) by striking “encourage top college juniors and seniors majoring in” and inserting “recruit and prepare undergraduate students to pursue degrees in”; and

(bb) by striking “to become” and inserting “and become qualified as”;

(II) in clause (ii)—

(aa) by striking “programs to help scholarship recipients” and inserting “academic courses and clinical teaching experiences designed to prepare students participating in the program”;

(bb) by striking “programs that will result in” and inserting “such preparation as is necessary to meet requirements for”; and

(cc) by striking “licensing; and” and inserting “licensing”;

(III) in clause (iii)—

(aa) by striking “scholarship recipients” and inserting “students participating in the program”;

(bb) by striking “enable the recipients” and inserting “enable the students”; and

(cc) by striking “; or” and inserting “; and”;

(IV) by adding at the end the following:

“(iv) providing summer internships for freshman and sophomore students participating in the program”;

(iii) in subparagraph (B)—

(I) in the matter preceding clause (i)—

(aa) by striking “encourage” and inserting “recruit and prepare”; and

(bb) by inserting “qualified as” after “to become”;

(II) by striking clause (ii) and inserting the following:

“(i) offering academic courses and clinical teaching experiences designed to prepare stipend recipients to teach in elementary schools and secondary schools, including such preparation as is necessary to meet requirements for teacher certification or licensing; and”;

(III) in clause (iii), by striking the period at the end and inserting “; or”;

(iv) by adding at the end the following:

“(C) to develop and implement a program to recruit and prepare mathematics, science, or engineering professionals to become NSF Teaching Fellows, and to recruit existing teachers to become NSF Master Teaching Fellows, through—

“(i) administering fellowships in accordance with subsection (e);

“(ii) offering academic courses and clinical teaching experiences that are designed to prepare students participating in the program to teach in secondary schools and that, in the case of NSF Teaching Fellows, result in a master's degree in teaching and teacher certification or licensing; and

“(iii) offering programs to participants to assist in the fulfillment of the participants' responsibilities under this section, including mentoring, training, mentoring training, and induction and professional development programs.”;

(C) by adding at the end the following:

“(4) **ELIGIBILITY REQUIREMENT.**—To be eligible for an award under this section, an institution of higher education, a consortium of such institutions, or a partnership shall ensure that specific faculty members and staff from the mathematics, science, or engineering department of the institution (or a participating institution of the consortium or partnership) and specific education faculty members of the institution (or such participating institution) are designated to carry out the development and implementation of the program. An institution of higher education and consortium may also include teachers to participate in developing the pedagogical content of the program and to supervise students participating in the program in the students' field teaching experiences. No institution of higher education, consortium, or partnership shall be eligible for an award unless faculty from the mathematics, science, or engineering department of the institution (or such participating institution) are active participants in the program.

“(5) **MATCHING REQUIREMENT.**—An institution of higher education, consortium of institutions of higher education, or partnership receiving a grant under this section shall provide, from non-Federal sources, an amount equal to 50 percent of the amount of the grant (which may be provided in cash or in-kind) to carry out the activities supported by the grant.

“(6) **SUPPLEMENT, NOT SUPPLANT.**—Grant funds provided under this section shall be used to supplement, and not supplant, other Federal or State funds available for the type of activities supported by the grant.”;

(3) in subsection (b)—

(A) in paragraph (1)—

(i) in the matter preceding subparagraph (A), by striking “or consortium” and inserting “consortium, or partnership”;

(ii) by striking subparagraph (A) and inserting the following:

“(A) a description of the program that the applicant intends to operate, including—

“(i) the number of scholarships and summer internships or the size and number of stipends or fellowships the applicant intends to award;

“(ii) the type of activities proposed for the recruitment of students to the program; and

“(iii) the selection process that will be used in awarding the scholarships, stipends, or fellowships.”;

(iii) in subparagraph (B)—

(I) by striking “scholarship or stipend”;

and

(II) by striking “; and” and inserting “, which may include a description of any existing programs at the applicant's institution that are targeted to the education of mathematics and science teachers and the number of teachers graduated annually from such programs”;

(iv) by striking subparagraph (C) and inserting the following:

“(C) a description of the academic courses and clinical teaching experiences required under subparagraph (A)(ii), (B)(ii), or (C)(ii) of subsection (a)(3), as applicable, including—

“(i)(I) a description of the undergraduate program under subsection (a)(3)(A)(i) that will enable a student to graduate in 4 years with a major in mathematics, science, or engineering and to obtain teacher certification or licensing; or

“(II) a description of the master's degree programs offered under subsection (a)(3)(C)(ii);

“(ii) a description of clinical teaching experiences proposed; and

“(iii) evidence of agreements between the applicant and the schools or school districts that are identified as the locations at which clinical teaching experiences will occur;

“(D) a description of the programs required under subparagraph (A)(iii), (B)(iii), or (C)(iii) of subsection (a)(3), as applicable, including activities to assist new teachers in fulfilling their service requirements under this section; and

“(E) an identification of the applicant's mathematics, science, or engineering faculty and its education faculty who will carry out the development and implementation of the program as required under subsection (a)(4).”;

(B) in paragraph (2)—

(i) by redesignating subparagraphs (B) through (E) as subparagraphs (C) through (F), respectively;

(ii) by inserting after subparagraph (A) the following:

“(B) the extent to which the applicant's 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 (3)—

(i) by striking "\$7,500" and inserting "\$10,000"; and

(ii) by striking "of scholarship support" and inserting "of scholarship 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";

(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, such 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 (1), 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 grant 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 subsection shall award such fellowships only to—

"(A) mathematics, science, or engineering professionals who enroll in 1-year master's degree programs 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 Fellows, demonstrated success 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 salary 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 local educational 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, developing curricula, and assisting in the development and implementation of professional development activities.";

(8) 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 (e); and

"(B) the terms regarding the failure to complete a service obligation required for the scholarship, stipend, or fellowship pursuant to subsection (h);"; and

(B) in paragraph (3)—

(i) by striking "scholarship" and inserting "scholarship, stipend, or fellowship"; and

(ii) by striking "subsection (g)" and inserting "subsection (h)";

(9) 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";

(10) 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"; and

(ii) in subparagraph (C), by striking "baccalaureate 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 circumstance described in subparagraph (D) or

(E) of paragraph (1) occurs after the completion of 1 year of a service obligation under this section, an amount equal to ½ 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 ", consortia, or partnerships";

(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, or 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 retention of participants in the teaching profession beyond the service obligation required under this section.";

(13) in subsection (1) (as redesignated by paragraph (6))—

(A) by redesignating paragraphs (1), (2), (3), (4), and (5) as paragraphs (2), (5), (7), (9), and (10), respectively;

(B) by inserting before paragraph (2) (as redesignated by subparagraph (A)) the following:

"(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 redesignated by subparagraph (A)) the following:

"(3) the term 'fellowship' means an award under subsection (e);

"(4) 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)—

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

"(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

"(B)(i) for which there is a higher percentage of teachers providing instruction in academic subject areas or grade levels for which the teachers are not highly qualified; or

"(ii) for which there is a high teacher turnover rate or a high percentage of teachers with emergency, provisional, or temporary certification or licensure";

(D) in paragraph (5) (as redesignated by 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”; and

(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)(i) a school or department within an institution of higher education participating in the partnership that provides a master teacher’s preparation program; or

“(ii) a 2-year institution of higher education that has a teacher preparation offering or a dual enrollment program with 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; and

“(E) 1 or more nonprofit organizations that have the capacity to provide expertise or support to meet the purposes of this section;”;

(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 clauses (ii) and (iii) 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 \$24,000,000 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 \$105,000,000, the amount of funding 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 preceding paragraph (1) by striking “In this Act:” and inserting “Except as otherwise provided, in this Act:”.

(2) SECTION 8.—Section 8(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”.

**SEC. 4013. SENSE OF THE SENATE REGARDING THE MATHEMATICS AND SCIENCE PARTNERSHIP PROGRAMS OF THE DEPARTMENT OF EDUCATION AND THE NATIONAL SCIENCE FOUNDATION.**

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 partnership 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 by dissemination through the Department of Education partnership programs; and

(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) \$84,000,000 for fiscal year 2008;

(2) \$94,000,000 for fiscal year 2009;

(3) \$106,000,000 for fiscal year 2010; and

(4) \$140,000,000 for fiscal year 2011.

(b) TEACHER INSTITUTES FOR THE 21ST CENTURY.—Section 9(a) of the National Science Foundation Authorization Act of 2002 (42 U.S.C. 1862n(a)) is amended—

(1) in paragraph (3)(B), by striking “summer or” and inserting “teacher institutes for the 21st century, as described in paragraph (7),”;

(2) by redesignating paragraph (7) as paragraph (8); and

(3) by inserting after paragraph (6) the following:

“(7) 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) be science, technology, engineering, and mathematics focused institutes that provide professional development to elementary school and secondary school teachers;

“(iii) 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 1114(a)(1) of the Elementary and Secondary Education Act of 1965);

“(iv) focus on the 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;

“(vi) ensure that the pedagogy component is designed around specific strategies that are relevant to teaching the subject and content on which teachers are being trained, which may include training teachers in the essential components of reading instruction for adolescents in order to improve student reading skills within the subject areas of science, 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) have 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 during the academic year for teacher institute participants to apply the knowledge and skills gained at the teacher institute.

“(B) 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)(B).”.

**SEC. 4015. PARTNERSHIPS FOR ACCESS TO LABORATORY SCIENCE.**

(a) GRANT PROGRAM.—Section 8(8) 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 indenting appropriately;

(2) by moving the flush language at the end 2 ems to the right;

(3) in the flush language at the end, by striking “paragraph” and inserting “subparagraph”;

(4) by striking “INITIATIVE.—A program of” and inserting “INITIATIVE.—

“(A) IN GENERAL.—A program of”; and

(5) by inserting at the end the following:

“(B) PILOT PROGRAM.—

“(i) IN GENERAL.—In accordance with subparagraph (A)(v), the Director shall establish a pilot program designated as ‘Partnerships for Access to Laboratory Science’ to award grants to partnerships to pay the Federal share of the costs of improving laboratories and providing instrumentation as part of a comprehensive program to enhance the quality of mathematics, science, engineering, and technology instruction at the secondary school level. Grants under this subparagraph may be used for—

“(I) purchase, rental, or leasing of equipment, instrumentation, and other scientific educational materials;

“(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, and to the extent applicable, technology and engineering, academic achievement standards;

“(V) training in laboratory safety for relevant school personnel;

“(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.

“(ii) PARTNERSHIP.—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) may include a State educational agency, other public agency, National Laboratory, or community-based organization.

“(iii) 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) REPORT.—The Director 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 this section and the amendments 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 TRADE IN SERVICES.

(a) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Secretary of Commerce shall establish 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, the Secretary shall annually—

(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 initiatives in 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—

(1) the United States has the most fair, most transparent, and most efficient capital markets in the world, in part due to its strong securities statutory and regulatory scheme;

(2) 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;

(3) small businesses are vital participants in United States capital markets, and play a critical role in future economic growth and high-wage job creation;

(4) section 404 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;

(5) 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;

(6) 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

(7) 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 the implementation of the law that has caused the excessive burden, not the law itself. That's an important distinction. I don't believe these important investor protections, 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 the Commission and the PCAOB should complete promulgation of the final rules implementing section 404 of the Sarbanes-Oxley Act of 2002 (15 U.S.C. 7262).

##### 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 carried out under this Act (including any amendment made by this Act); and

(3) includes any recommendations as the Comptroller General determines are appropriate to improve the effectiveness of such activities, grants, and programs.

##### SEC. 5004. PROHIBITION AGAINST FUNDING ANTI-COMPETITIVENESS.

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 of 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 and complete 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. The study shall look at the need for a free college degree program as well as the feasibility of—

(1) developing online course content;

(2) developing sufficiently rigorous tests to determine mastery of a field of study; and

(3) sustaining the program through private funding.

(b) STUDY.—The study described in subsection (a) shall also include a review of existing online education programs to determine the extent to which these programs offer a rigorous curriculum in areas like mathematics and science and the National Academy of Sciences shall make recommendations for how online degree programs can be assessed and accredited.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$500,000 for fiscal year 2008.

##### SEC. 5006. SENSE OF THE SENATE REGARDING DEEMED EXPORTS.

It is the sense of Senate that—

(1) United States government policies related to deemed exports should safeguard United States national security and protect fundamental research.

(2) The Department of Commerce has established the Deemed Export Advisory Committee to develop recommendations for improving current 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 CAPITAL 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 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—it is clear that the declining position of the US goes beyond this natural market evolution to more controllable, intrinsic issues of US competitiveness. As market effectiveness, liquidity and safety 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 illustration of the change in 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 of which are key competitive factors for financial centers. Dealers and investors increasingly see derivatives and cash markets as interchangeable and are therefore combining trading operations 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) conference delegates examined the impact of the United States regulatory structure and philosophy, the legal and corporate governance environment, and the auditing profession and financial reporting on United States capital markets competitiveness;

(5) the foundation of any competitive capital market is investor confidence, and since 1930, 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 entrepreneurship, competition, and innovation, and too little regulation creates excessive risk to industry, investors, and the overall system.

(b) SENSE 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 reclaim 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 innovativeness 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 regulation 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 nominations 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 Marshall 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 624:

##### 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 12203:

##### To be major 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 major general

Brig. Gen. William C. Kirkland, 0000

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 ARMY

The following named officer for appointment in the United States Army 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 officers for appointment in the Reserve of the Army to the grade indicated under title 10, U.S.C., Section 12203:

##### To be major general

Brigadier General Mari K. Eder, 0000  
 Brigadier General William H. Gerety, 0000  
 Brigadier General Paul F. Hamm, 0000  
 Brigadier General George R. Harris, 0000  
 Brigadier General Steven J. Hashem, 0000  
 Brigadier General Adolph McQueen, Jr., 0000  
 Brigadier General David A. Morris, 0000  
 Brigadier General Maynard J. Sanders, 0000  
 Brigadier General Gregory A. Schumacher, 0000  
 Brigadier General Michael J. Schweiger, 0000  
 Brigadier General Richard J. Sherlock, Jr., 0000  
 Brigadier General Dean G. Sienko, 0000

##### To be brigadier general

Colonel Marcia M. Anderson, 0000  
 Colonel Douglas P. Anson, 0000  
 Colonel William G. Beard, 0000  
 Colonel William M. Buckler, 0000  
 Colonel Alfred B. Carlton, 0000  
 Colonel Robert G. Catalanotti, 0000  
 Colonel Michele G. Compton, 0000  
 Colonel John C. Hanley, 0000  
 Colonel Katherine P. Kasun, 0000  
 Colonel Robert W. Kenyon, 0000  
 Colonel Karen E. Ledoux, 0000  
 Colonel Peter S. Lennon, 0000  
 Colonel Charles D. Martin, 0000  
 Colonel Gary A. Medvigy, 0000  
 Colonel Samuel T. Nichols, Jr., 0000  
 Colonel James D. Owens, Jr., 0000  
 Colonel Jeffrey E. Phillips, 0000  
 Colonel Leslie A. Purser, 0000  
 Colonel David W. Puster, 0000  
 Colonel Daniel I. Schultz, 0000  
 Colonel Michael R. Smith, 0000  
 Colonel Jeffrey W. Talley, 0000  
 Colonel Megan P. Tatu, 0000  
 Colonel Nickolas P. Tooliatos, 0000  
 Colonel James T. Walton, 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

Maj. Gen. George J. Trautman, III, 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. Harold D. Starling, II, 0000

#### IN THE ARMY

The following named officer for appointment in the United States Army to the grade