other agencies like the Federal Aviation Administration and the Department of Housing an Urban Development. I have cited just some of the extreme examples, but there are many more instances where employees purchase items that were not needed by the agency or where a cheaper alternative would meet the purpose just as well. This occurred because of weak internal controls within the agencies and is something that clearly needs to be addressed agency-wide. Based on oversight from Congress, GAO, and agency inspectors general, the situation has improved in many agencies and I am pleased that the Office of Management and Budget has begun to bring about an improved control environment through direction contained in OMB Circular 123. However, there is more to be done and my experience has convinced me that legislation is necessary.

The Government Credit Card Abuse Prevention Act is largely based on the recommendations by GAO regarding what controls are necessary to prevent the kinds of waste, fraud, and abuse we have uncovered. Since I originally introduced this legislation in Congress, I have collected input and ideas and worked to refine the bill to make it both comprehensive and workable. The provisions in my bill are simply commonsense internal controls that should be present in every Federal agency to prevent improper purchases. These include: performing credit checks for travel cardholders and issuing restricted cards for those with poor or no credit to reduce the potential for misuse; maintaining a record of each cardholder, including single transaction limits and total credit limits so agencies can effectively manage their cardholders; implementing periodic reviews to determine if cardholders have a need for a card; properly recording purchases so that the Government charge cards cannot get away scot-free. In cases of serious misuse or fraud, the bill provides that employees must be dismissed and suspected cases of fraud will also be referred to the appropriate U.S. attorney for prosecution under Federal antifraud laws. Hopefully this will send a clear message that such activity will not be tolerated so as to act as a deterrent for others.

I am proud of the oversight work that I do to uncover waste, fraud, and abuse, and, unlike Sisyphus, doomed to eternally roll a boulder up a hill only to see it fall again. Instead of eternally looking over the shoulder of agencies to find waste that should never have occurred and then poking and prodding them to close the barn door after the horse has gotten out, we need to put the internal controls in place to make sure these problems don’t happen in the first place. This bill will accomplish that for the Government charge cards so that American taxpayers can sleep soundly knowing that their money isn’t being charged away by some bureaucrat. I hope my colleagues will support this commonsense measure and that it will be enacted into law in short order.

By Mr. ENSIGN (for himself and
Mr. LIEBERMAN):

S. 3483—A bill to improve national competitiveness through enhanced education initiatives; to the Committee on Health, Education, Labor, and Pensions.

Mr. LIEBERMAN. Mr. President, I rise today to introduce along with my colleague from Nevada, Senator Ensign, the “National Innovation Education Act”. The intent of this bill is to enhance our science and technology talent base and improve national competitiveness through strengthened education and advanced academic research.

In science, technology, engineering and math—often called the STEM disciplines—through innovative educational programs will stimulate change and growth within elementary, secondary and postsecondary institutions, improve current educational opportunities for all students, allow graduates greater opportunity for economic success and greater ability to successfully compete in the global market.

This bill proposes initiatives spanning the education spectrum that seek to improve quality and access to STEM learning for all students. Recent recommendations from the Council on Competitiveness and The Augustine Commission at the National Academy of Sciences, among others, target national concerns about the content and quality of K–16 in STEM disciplines, particularly with regard to minority and low-income students, the need to stimulate innovation, and the need to enhance teacher preparation and professional development in the STEM fields.

An increasing number of researchers express alarm at the nearly one out of three public high school students who will graduate and may use our systems to adequately prepare high school graduates, and particularly minorities, for success in college and the workplace. Addressing the challenge of successfully thriving in a world of change, the Council on Competitiveness examined the pressing issue of attracting more young Americans to science and engineering fields. Currently, less than 15 percent of U.S. students have the prerequisite skills to target national concerns on science degrees in college. Only 5.5 percent of the 1.1 million high school seniors who took the college entrance exam in 2002 planned to pursue an engineering degree. And there continues to be poor representation of women and minorities in these fields. The National Academies report, “Rising Above the Gathering Storm,” notes that amongst the U.S. science and technology workforce in 2050 only 20 percent of Ph.D.s will be born in America. Changes need to be enacted to not only increase the number of students pursuing math and science degrees but to prepare them to pursue these degrees.

Indeed, numerous national reports in recent years have called for efforts to improve K–12 education, teacher preparation and professional development in the STEM areas. Recommendations include increasing the numbers of postsecondary students pursuing careers in the areas of mathematics, engineering, and technology and increasing the numbers of postsecondary students in the STEM fields who will then pursue concurrent degrees in education. Increasing funding for not only STEM education but also research has received strong recommendations as an important and timely approach to addressing improvements in education and innovation. Finally, a critical factor to ensuring program success is the ability to entice and then hold students’ interests in the various STEM fields enough to encourage them to pursue STEM careers.
Our bill seeks to craft a comprehensive response to many of these issues, and includes the following provisions.

Title I—Improving Pre-kindergarten Through Grade 16, supplies a remedy to the critical issue of the disconnect existing between school and college expectations. Through the formation of partnerships between P-12 and higher education systems in the states—P-16 Commissions—academic success in postsecondary education becomes an accountability agenda item for reform. We anticipate that P-16 Commissions will bring about an increase in the percentage of academically prepared students, particularly low-income and minority students, and a decrease in the percentage of college students requiring remedial coursework, particularly with respect to math, science, and engineering.

Many States across our country have already seen the wisdom of a P-16 Commission and have been working on goals and implementation. The results, although preliminary for many States, are vastly encouraging. Title I will provide support both to States with existing P-16 bodies, or States seeking to establish such commissions. It will give States the tools and the States also seek to establish or enhance data systems. We hope that States will have an opportunity to craft a vision that will reach all students over time so that their educational pathway of access to and graduation will be meaningful.

Magnet schools have the capacity to create learning environments tailored to the interests and needs of its community and can offer a focused curriculum capable of attracting substantial numbers of students of different racial backgrounds. Title II of our bill authorizes the National Science Foundation to award grants to assist in the promotion of innovation and competitiveness through the development and implementation of magnet school programs. These programs would encourage students to meet state academic content standards through the development and design of innovative educational methods, practices and curriculum that promote student achievement in STEM courses and encourage student enrollment in postsecondary institutions.

In addition, Title II authorizes NSF grants to elementary and middle school programs implementing innovation-based experiential learning environments. Innovation-based experiential learning is a teaching model that seeks to seed traditional technical studies with new exposure to methods for creative thinking and translating ideas into practical applications. Such programs would likely involve immersing students in hands-on experimentation that helps students discover new concepts and use those concepts to solve real-world problems.

The interrelated demands that mathematics and science education places upon schools to prepare both teachers and students must be addressed comprehensively. Teachers need to be better prepared to teach STEM topics across the board and students need to have access to teachers who are well versed in their content subjects.

Title III of our bill authorizes funding to increase the number of graduates from postsecondary institutions with concurrent degrees in education and STEM fields. This program is based on the successful UTech model at the University of Texas at Austin. Encouraging science and math majors to concurrently pursue certification in the field of education will help increase the number and quality of teachers in these fields. The model program at the University of Texas has experienced impressive success in attracting and keeping promising young STEM teachers. Our bill also calls for the establishment of Teacher Professional Development Institutes to promote innovative and effective approaches to improving teacher quality by providing professional development support for educators already in the classroom. The Teacher Institute Model encourages collaboration between urban teachers and university faculty to improve student learning by enhancing teacher subject matter. It is based on the model which has been in operation at Yale University in New Haven, CT for over 25 years.

Our Nation recognizes the pressing need to increase funding for STEM research and to boost the number of students in undergraduate and graduate programs pursuing mathematics and science degrees for our country’s continued development, prosperity and security.

Within the final title of our bill, Title IV, NSF basic research funding is doubled. NSF is authorized to expand funding for STEM education through increased fellowships and trainee programs at the undergraduate and graduate school level. A clearinghouse at the National Science Foundation of successful professional science master’s degree program elements will be made available to postsecondary institutions as well as grants for developing pilot programs or improving current programs. In addition the NSF Tech Talent program is reauthorized with increased funding. This program provides competitive grants to undergraduate universities to develop new methods of integrating degrees in science, math, and engineering. Finally, it is in our interest to examine and understand the emerging field of service sciences, a multidisciplinary curriculum partnering science, technology, engineering, and math with management and business disciplines. To this end, the National Science Foundation will conduct a collaborative study with leaders from institutions of higher education to come to an understanding of how best to support this new field.

Our National Innovation Education Act takes a broad and comprehensive approach to addressing national prosperity, security and our ability to compete internationally with recommendations for enhanced education initiatives in order to improve our national competitiveness. Improving current education for all students will allow graduates greater opportunity for economic success and greater ability to successfully compete in the global market. Our very Nation’s future prosperity and security depends upon our willingness as leaders to infuse education with the requisite innovative vision that will inspire our youth to reach for goals that are achievable only beyond the ordinary bounds.

I urge my colleagues to act favorably on this measure. I ask unanimous consent that the text of this bill be printed in the Record. There being no objection, the text of the bill was ordered to be printed in the Record, as follows:

SEC. 1. SHORT TITLE. This Act may be cited as the “National Innovation Education Act”.

SEC. 2. TABLE OF CONTENTS. The table of contents for this Act is as follows:

I. Improving Pre-kindergarten Through Grade 16 Education
   Sec. 101. Short title.
   Sec. 102. Purposes.
   Sec. 103. Definitions.
   Sec. 104. P-16 education stewardship system grants.
   Sec. 105. State application and plan.
   Sec. 106. P-16 education stewardship commission.
   Sec. 107. P-16 education data system.
   Sec. 108. Reports; technical assistance.
   Sec. 109. Authorization of appropriations.

II. National Science Foundation Magnet Schools and Innovation-based Learning
   Sec. 201. General definitions.
   Sec. 203. Innovation-based experiential learning.

III. Teacher Training and Professional Development
   Sec. 301. Baccalaureate degrees in mathematics and science with teacher certification.
   Sec. 302. Teachers professional development institutes.

IV. STEM Education and Research
   Sec. 401. Definitions.
   Sec. 402. Graduate fellowships and graduate traineeships.
   Sec. 403. Professional science master’s degree programs.
   Sec. 404. Increased support for science education through the National Science Foundation.
   Sec. 405. A national commitment to basic research.

TITLE I—IMPROVING PRE-KINDERGARTEN THROUGH GRADE 16 EDUCATION

S. 3483

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.
SEC. 102. PURPOSES.

The purposes of this title are the following:

(1) To broaden the focus of Federal, State, and local higher education programs to promote academic success in postsecondary education, particularly with respect to mathematics, science, engineering, and technology;

(2) To increase the percentage of low-income and minority students who are academically prepared to enter and successfully complete postsecondary-level general education coursework;

(3) To decrease the percentage of students requiring developmental coursework through grants to eligible entities to coordinate the public prekindergarten through grade 12 education system and the postsecondary education system;

(A) to ensure that covered institutions articulate and publicize the prerequisite skills and knowledge expected of incoming postsecondary students attending covered institutions, in order to provide students and other interested parties with accurate information pertaining to the students' necessary preparations for postsecondary education;

(B) to establish and implement middle school and secondary school course enrollment guidelines while ensuring rigorous content standards; and

(i) to ensure that public secondary school students, in all major racial and ethnic groups, and income levels, complete academic coursework linked with academic programs in mathematics, science, engineering, and technology at the postsecondary level; and

(ii) to increase the percentage of students in each major racial group, ethnic group, and income level who graduate from secondary school and enter postsecondary education with the academic preparation necessary to successfully complete postsecondary-level general education coursework, particularly with respect to mathematics, science, engineering, and technology;

(C) to implement programs and policies that increase secondary school graduation rates while ensuring rigorous content standards; and

(D) to collect and analyze disaggregated longitudinal student data throughout P–16 education in order to—

(i) understand and improve students’ progress throughout P–16 education;

(ii) understand problems and needs throughout P–16 education; and

(iii) implement, by grade 12 academic standards and higher education standards so that more students are prepared to successfully complete postsecondary-level general education coursework.

SEC. 103. DEFINITIONS.

In this title:

(1) IN GENERAL.—The terms "local educational agency," "parent," "secondary school," and "State" have the meanings given in the terms in section 901 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(2) ACADEMIC ASSESSMENTS.—The term "academic assessments" means the academic assessments implemented by a State educational agency pursuant to section 1111(b)(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(3)).

(3) ACADEMIC STANDARDS.—The term "academic standards" means the challenging academic content standards and challenging student academic achievement standards adopted by a State pursuant to section 1111(b)(3) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)(3)).

(4) COVERED INSTITUTION.—The term "covered institution" means an institution of higher education that participates in a program under title IV of the Higher Education Act of 1965 (20 U.S.C. 1070 et seq.).

(5) DEVELOPMENTAL COURSEWORK.—The term "developmental coursework" means coursework that a student is required to complete in order to attain prerequisite knowledge and skills necessary for entrance into a postsecondary degree or certification program.

(6) INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given the term in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002).

(7) P–16 EDUCATION.—The term "P–16 education" means the educational system from prekindergarten through the conferring of a baccalaureate degree.

(8) P–16 EDUCATION STEWARDSHIP COMMISSIONS.—The term "P–16 education stewardship commission" means an individual teaching in P–16 education.

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

(10) STUDENT.—The term "student" means any student enrolled in a public school.

SEC. 104. P–16 EDUCATION STEWARDSHIP SYSTEM GRANTS.

(a) PROGRAM AUTHORIZED.—From amounts appropriated under section 109 for a fiscal year, and subject to subsection (b), the Secretary shall award grants to States to establish comprehensive P–16 education stewardship systems, in order to provide students and other interested parties with accurate information pertaining to the students' necessary preparations for postsecondary education:

(1) to establish—

(A) P–16 education stewardship commissions in accordance with section 106; or

(B) P–16 education stewardship systems consisting of—

(i) a P–16 education stewardship commission in accordance with section 106; and

(ii) a P–16 education data system in accordance with section 107; and

(2) to carry out the activities and programs described in this section and plan submitted under section 105.

(b) AWARD BASIS.—In determining the approval and amount of a grant under subsection (a), the Secretary shall give priority to an application from a State that desires the grant to establish a P–16 education stewardship system described in subsection (a)(1)(B).

(c) PERIOD OF GRANTS.—

(1) STATES ESTABLISHING P–16 EDUCATION STEWARDSHIP SYSTEMS.—Each grant made under this section to a State to establish a P–16 education stewardship system described in subsection (a)(1)(B) shall be awarded for a period of 5 years.

(2) STATES ESTABLISHING P–16 EDUCATION STEWARDSHIP COMMISSIONS.—Each grant made under this section to a State to establish a P–16 education stewardship commission described in subsection (a)(1)(A) shall be awarded for a period of 3 years.

SEC. 105. STATE APPLICATION AND PLAN.

(a) IN GENERAL.—A State desiring a grant under section 104 shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may reasonably require.

(b) COMPLETION.—Each application submitted under this section shall include, at a minimum, the following:

(1) A demonstration that the State, not later than 5 months after receiving grant funds under this title, will establish a P–16 education stewardship commission described in section 106.

(2) For a State applying for a grant under section 104(a)(1)(B), a demonstration that the State, not later than 2 years after receiving grant funds under this title, will implement, expand, or improve the P–16 education data system described in section 107.

(3) A demonstration that the State will work with the State P–16 education stewardship commission and others as necessary to examine the relationship among the content of postsecondary education admission and placement exams, the prerequisite skills and knowledge required to successfully take postsecondary-level general education coursework, the prekindergarten through grade 12 academic courses and academic factors associated with academic success at the postsecondary level, particularly with respect to mathematics, science, engineering, and technology, and existing academic standards and aligned academic assessments.

(4) A description of how the State will, using the information from the State P–16 education stewardship commission, increase the percentage of students taking courses that have the highest correlation of academic success at the postsecondary level, for each of the following demographic groups:

(A) Economically disadvantaged students.

(B) Students from each major racial and ethnic group.

(C) Students with disabilities.

(D) Students with limited English proficiency.

(5) A description of how the State will distribute the information in the P–16 education stewardship commission’s report under section 106(c)(4) to the public in the State, including public secondary schools, local educational agencies, school counselors, P–16 education Data System of Higher Education, students, and parents.

(6) An assurance that the State will continue to pursue effective P–16 education alignment strategies at the end of the grant period.

SEC. 106. P–16 EDUCATION STEWARDSHIP COMMISSION.

(a) P–16 EDUCATION STEWARDSHIP COMMISSION.—

(1) IN GENERAL.—Each State receiving a grant under section 104 for a P–16 education stewardship commission that has the policymaking ability to meet the requirements of this section.

(2) EXISTING COMMISSION.—The State may designate an existing coordinating body or commission as the State P–16 education stewardship commission for purposes of this title, if the body or commission meets, or is amended to meet, the basic requirements of this section.

(b) MEMBERSHIP.—

(1) COMPOSITION.—Each P–16 education stewardship commission shall be composed of the Governor of the State, or the designee of the Governor, the stakeholders of the statewide education community, as determined by the Governor or the designee of the Governor, such as—

(A) the chief State official responsible for administering prekindergarten through grade 12 education in the State;

(B) the chief State official of the entity primarily responsible for the supervision of institutions of higher education in the State;

(C) representatives of 2- and 4-year institutions of higher education in the State; and

(D) representatives of the business community.

(2) AT THE DISCRETION OF THE GOVERNOR OR THE DESIGNEE OF THE GOVERNOR.—

(3) DUTIES OF THE COMMISSION.—

(1) MEETINGS OF COVERED INSTITUTIONS.—
SEC. 107. P-16 EDUCATION DATA SYSTEM.

(a) Establishment.—Not later than 2 years after a State receives a grant under section 104(a)(1)(B), the State P-16 education stewardship commission shall establish a statewide longitudinal data system that provides each student, upon enrollment in a public school or in a covered institution in the State, with a unique identifier that is retained throughout the student’s enrollment in postsecondary education in the State.

(b) Valid Data and Compliance With FERPA.—The State, through the implementation of the data system described in subsection (a), shall—

(1) ensure the implementation and use of valid and reliable secondary school dropout data; and

(2) ensure that the data system is compliant with the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g).

(c) REQUIRED ELEMENTS OF A STATEWIDE DATA SYSTEM.—The State shall ensure that the data system described in subsection (a) includes the following elements:

(1) A unique statewide student identifier.

(2) Student-level enrollment, demographic, and program participation information.

(3) Information on students not tested by grade and subject.

(4) Information on students not tested by grade and subject.

(5) A teacher identifier system with the ability to match teachers to students.

(6) Student-level transcript information, including information on courses completed and grades earned.

(7) Student-level college readiness test scores.

(8) Student-level information about the points at which students exit, transfer in, drop out, or graduate P-16 education.

(9) The capacity to communicate with higher education data systems.

(10) A data audit system assessing data quality, validity, and reliability.

(d) FUNCTIONS OF THE STATEWIDE DATA SYSTEM.—In implementing the data system described in subsection (a), the State shall—

(1) identify factors that correlate to students’ ability to successfully engage in and complete postsecondary-level general education coursework; and

(2) identify factors to increase the percentage of low-income and minority students who are academically prepared to enter and successfully complete postsecondary-level general education coursework and programs.

SEC. 108. REPORTS; TECHNICAL ASSISTANCE.

(a) STATE REPORTS.—

(1) ANNUAL REPORT.—Each State that receives a grant under section 104 shall submit an annual report to the Secretary for each year of the grant period that shall include a description of the activities undertaken under the grant to improve academic readiness for postsecondary-level general education and the satisfaction of reporting requirements.

(b) DISSEMINATION.—Each State shall prepare and widely disseminate the report described in paragraph (1) to the public in the State, including—

(1) public secondary schools and local educational agencies;

(2) school counselors;

(3) P-16 educators;

(4) institutions of higher education; and

(5) students and parents, especially students and parents of students listed in clause (1) who are in the academic year that is the subject of paragraph (2)(B) and those entering grade 9 in the next academic year, to assist students and parents in making informed and strategic course enrollment decisions.

SEC. 109. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this title $55,000,000 for fiscal year 2007, and such sums as may be necessary for each of fiscal years 2008 through 2011.

TITLE II—NATIONAL SCIENCE FOUNDATION MAGNET SCHOOLS AND INNOVATION-BASED LEARNING

SEC. 101. GENERAL DEFINITIONS.

Except as otherwise provided, the terms used in this title have the meanings given the terms in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

SEC. 102. MAGNET SCHOOLS.

(a) PURPOSE.—The purpose of this section is to assist in the promotion of innovation and competitiveness by providing financial assistance to eligible local educational agencies for—

(1) the development and implementation of magnet school programs that will assist eligible local educational agencies in achieving systemic reforms and providing all students with an opportunity to meet challenging State academic content standards and student academic achievement standards;

(2) the development and design of innovative curricula and instructional methods to promote student achievement in science, mathematics, and technology courses;

(3) improving the capacity of eligible local educational agencies, including through professional development, to continue operating...
magnet schools after Federal funding for the magnet schools is terminated; and
(4) ensuring that students enrolled in such schools have access to a high quality education, and that such students graduate academically and enroll in postsecondary education at a high level.

(b) Definitions.—In this section:
(1) The term "Director" means the Director of the National Science Foundation.
(2) Eligible local educational agency.—The term "eligible local educational agency" means a local educational agency described in section 5304 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7224).
(3) Magnet school.—The term "magnet school" means a public elementary school or public secondary school that—
(A) offers a curriculum focused on science, mathematics, and technology; and
(B) attracts a substantial number of students from different racial backgrounds.
(c) Program Authorized.—The Director, in accordance with this section, is authorized to award grants to eligible local educational agencies, and consortia of such agencies, in order to carry out the purposes of this section for magnet schools.
(d) Applications and Requirements.—
(1) Applications.—An eligible local educational agency, or consortium of such agencies, desiring to receive a grant under this section shall submit an application to the Secretary at such time, in such manner, and containing such information and assurances as the Secretary may reasonably require.
(2) Information and Assurances.—Each application submitted under paragraph (1) shall include—
(A) a description of—
(i) how a grant awarded under this section will be used to promote instruction in science, mathematics, and technology;
(ii) the manner and extent to which the magnet school program will increase student academic achievement in the instructional areas covered by the school;
(iii) how the applicant will continue the magnet school program after assistance under this section is no longer available; and
(iv) how grant funds under this section will be used to—
(I) improve student academic achievement for all students attending the magnet school program;
(II) to implement services and activities that are consistent with programs under part A of title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311 et seq.); and
(v) the criteria to be used in selecting students to attend the proposed magnet school program; and
(B) assurances that the applicant will—
(i) use grant funds under this section for the purpose specified in subsection (a);
(ii) provide qualified teachers in the courses of instruction assisted under this section; and
(iii) carry out a high-quality education program that will encourage greater parental involvement in decision making.
(e) Priority.—In awarding grants under this section, the Secretary shall give priority to applicants that propose to carry out new magnet school programs or significantly revise existing magnet school programs.
(f) Use of Funds.—
(1) In general.—Grant funds made available under this section may be used by an eligible local educational agency or consortium of such agencies—
(A) for planning and promotional activities directly related to the development, expansion, continuation, or enhancement of academic programs and services offered at magnet schools;
(B) for the acquisition of books, materials, and equipment (including computers), and the materials, equipment, and computers, necessary to conduct programs in magnet schools;
(C) for the compensation, or subdivision of a magnet school program, and secondary school teachers who are highly qualified, and instructional staff where applicable, who are necessary to conduct programs in magnet schools;
(D) for activities, which may include professional development, that will build the capacity of the educational agency, or consortium of such agencies, to operate magnet school programs once the grant period has ended;
(E) to enable the eligible local educational agency, or consortium of such agencies, to have more flexibility in the administration of a magnet school program in order to serve students attending a school who are not enrolled in a magnet school program; and
(F) to enable the eligible local educational agency, or consortium of such agencies, to have flexibility in designing magnet school programs for students in all elementary school and secondary school grades.
(2) Special Rule.—Grant funds under this section may be used for activities described in paragraphs (2) and (3) of subsection (a) only if the activities are directly related to improving—
(A) student academic achievement based on the State’s challenging academic content standards and student academic achievement standards; or
(B) student knowledge of mathematics, science, and technology as well as other core academic subjects.
(g) Priority.—Grants under this section may not be used for transportation or any activity that does not augment academic improvement.
(h) Limitation.—
(1) Duration of Awards.—A grant under this section shall be awarded for a period that shall not exceed 3 fiscal years.
(2) Limitation on Planning Funds.—An eligible local educational agency, or consortium of such agencies, may expend for planning (professional development shall not be considered planning for purposes of this subsection) not more than 15 percent of the grant funds received under this section for the first fiscal year of the program and not more than 15 percent of grant funds for each of the second and third such years.
(i) Amount.—No eligible local educational agency, or consortium of such agencies, may expend for planning, professional development, that will enable such students to succeed in mathematics, science, or engineering and teacher education, that lead to a baccalaureate degree in mathematics, science, or engineering with concurrent teacher certification.
(j) Definition of Eligible Recipient.—In this section, the term "eligible recipient" means an organization of higher education.
(k) Award and Duration.—
(1) Award.—The Secretary shall award a grant under this section to each eligible recipient that collaborates with a teacher preparation program at an institution of higher education to develop undergraduate degrees in mathematics, science, or engineering with pedagogy education and teacher certification.
(2) Duration.—The Secretary shall award a grant under this section to each eligible recipient in an amount that is not more than $1,000,000 per year for a period of 5 years.
(l) Matching Requirement.—Each eligible recipient receiving a grant under this section shall provide, from non-Federal sources (provided in cash or in kind), to carry out the activities supported by the grant, an amount that is not less than 25 percent of the amount of the grant for the first year of the grant, not less than 35 percent of the amount of the grant for the second year of the grant, and not less than 50 percent of the amount of the grant for each succeeding fiscal year of the grant.
(m) Application.—
(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 accompanied by such information as the Secretary may require.
(2) Contents.—Each application submitted pursuant to paragraph (1) shall include—
(A) a description of how the eligible recipient will use grant funds to develop and administer undergraduate degrees in mathematics, science, or engineering with pedagogy or teach teacher certification, including a description of proposed high-quality research and laboratory experiences that will be available to students;

(B) to carry out the activities authorized under this section;

(C) a resource assessment that describes the resources available to the eligible recipient, the intended use of the grant funds, and the commitment of the resources of the eligible recipient to the activities assisted under this section, including financial support, participation, time commitments, and continuation of the activities assisted under the grant when the grant period ends;

(D) an evaluation plan, including measurable objectives and benchmarks for—

(i) improving student retention;

(ii) increasing the percentage of highly qualified mathematics and science teachers;

(iii) improving kindergarten through grade 12 student academic performance in mathematics and science;

(E) a description of the activities the eligible recipient will conduct to ensure graduates of the program keep informed of the latest mathematics and science research and the respective professions;

(F) a description of how the eligible recipient will work with local educational agencies in the area in which the eligible recipient is located and, to the extent practicable, with local educational agencies where graduates of the program authorized under this section are employed, to ensure that the activities required under subsection (g)(3) are carried out; and

(G) a description of efforts to encourage applications to the program from underrepresented groups, including women and minority groups.

(g) AUTHORIZED ACTIVITIES.—An eligible recipient shall use the funds received under this section—

(1) to develop and administer teacher education and certification programs with in-depth content and subject matter expertise in education in pedagogy, leading to baccalaureate degrees in mathematics, science, or engineering with concurrent teacher certification;

(2) to offer high-quality research experiences and training in the use of educational technology; and

(3) to work with local educational agencies in the area in which the eligible recipient is located and, to the extent practicable, with local educational agencies where graduates of the program authorized under this section are employed, to support the new teachers during the initial years of teaching, which may include—

(A) promoting effective teaching skills;

(B) development of skills in educational interventions based on scientifically-based research;

(C) providing opportunities for high-quality teacher mentoring;

(D) providing opportunities for regular professional development;

(E) interdisciplinary collaboration among exemplary teachers, faculty, researchers, and other staff who prepare new teachers; and

(F) allowing time for joint lesson planning and other constructive collaborative activities.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section §30,000,000 for fiscal year 2007 and such sums as may be necessary for each of the fiscal years 2008 through 2013.

SEC. 302. TEACHERS PROFESSIONAL DEVELOPMENT INSTITUTES.

Title II of the Higher Education Act of 1965 (20 U.S.C. 1021 et seq.) is amended by adding at the end the following:

"PART C—TEACHERS PROFESSIONAL DEVELOPMENT INSTITUTES"

"SEC. 241. SHORT TITLE.

"This part may be cited as the 'Teachers Professional Development Institutes Act'."

"SEC. 242. PURPOSE.

"The purpose of this part is to provide Federal assistance to support the establishment and operation of Teachers Professional Development Institutes for local educational agencies that serve significant low-income populations in States throughout the Nation—

(1) to promote innovative and effective approaches to improving teacher quality through the use of the Teacher Institute Model that encourages collaboration between urban school teachers and university faculty;

(2) to improve student learning; and

(3) to enhance the quality of teaching by strengthening the subject matter mastery and pedagogical skills of current teachers through continuing teacher preparation, particularly with respect to mathematics, science, technology, and engineering.

"SEC. 243. DEFINITIONS.

In this part:

(1) POVERTY LINE.—The term 'poverty line' means the poverty line (as defined by the Office of Management and Budget, and revised annually in accordance with section 675(2) of the Community Services Block Grant Act) applicable to a family of the size involved.

(2) SIGNIFICANT LOW-INCOME POPULATION.—The term 'significant low-income population' means a student population of which not less than 25 percent are from families with incomes below the poverty line.

(3) STATE.—The term 'State' means each of the several States of the United States, the District of Columbia, and the Commonwealth of Puerto Rico.

(4) TEACHERS PROFESSIONAL DEVELOPMENT INSTITUTE.—The term 'Teachers Professional Development Institute' means a partnership or joint venture between one or more institutions of higher education, and one or more local educational agencies serving a significant low-income population, which partnership or joint venture—

(A) is entered into for the purpose of improving the quality of teaching and learning through collaborative seminars designed to enhance both the subject matter and the pedagogical resources of the seminar participants, particularly with respect to mathematics, science, technology, and engineering; and

(B) works in collaboration to determine the direction and content of the collaborative seminars.

"SEC. 244. GRANT AUTHORITY.

(a) IN GENERAL.—The Secretary is authorized—

(1) to award grants to Teachers Professional Development Institutes to encourage the establishment and operation of Teachers Professional Development Institutes where not less than 50 percent of collaborative seminars are targeted to the fields of mathematics, science, technology, and engineering; and

(2) to provide technical assistance, either directly or through existing Teachers Professional Development Institutes, to assist local educational agencies and institutions of higher education in preparing to establish and in operating Teachers Professional Development Institutes.

(b) SELECTION CRITERIA.—In selecting a Teachers Professional Development Institute for a grant under this part, the Secretary shall consider—

(1) the extent to which the proposed Teachers Professional Development Institute will serve a community with a significant low-income population;

(2) the extent to which the proposed Teachers Professional Development Institute will follow the Understandings and Necessary Procedures that have been developed following the National Demonstration Project;

(3) the extent to which the local educational agency participating in the proposed Teachers Professional Development Institute has a high percentage of teachers who are unprepared or under prepared to teach the core academic subjects the teachers are assigned to teach, particularly in the areas of mathematics, science, technology, and engineering; and

(4) the extent to which the proposed Teachers Professional Development Institute will receive a level of support from the community and other public sector entities that will ensure the requisite long-term commitment for the success of a Teachers Professional Development Institute.

(c) CONSULTATION.—

(1) IN GENERAL.—In evaluating applications under subsection (b), the Secretary may request the advice and assistance of existing Teachers Professional Development Institutes.

(2) STATE AGENCIES.—If the Secretary receives 2 or more applications for new Teachers Professional Development Institutes that propose serving the same State, the Secretary shall consult with the State educational agency regarding the applications.

(d) FISCAL AGENT.—In the case of this part, an institution of higher education participating in a Teachers Professional Development Institute shall serve as the fiscal agent for the receipt of grant funds under this part.

(e) LIMITATIONS.—A grant under this part—

(1) shall be awarded for a period not to exceed 5 years; and

(2) shall not exceed 50 percent of the total cost of the eligible activities, as determined by the Secretary.

"SEC. 245. ELIGIBLE ACTIVITIES.

(a) IN GENERAL.—A Teachers Professional Development Institute that receives a grant under this part may use the funds to—

(1) for the planning and development of applications for the establishment of Teachers Professional Development Institutes;

(2) to provide assistance to existing Teachers Professional Development Institutes established during the National Demonstration Project to enable the Teachers Professional Development Institutes—

(A) to further develop existing Teachers Professional Development Institutes; or

(B) to support the planning and development of applications for new Teachers Professional Development Institutes;

(3) for the salary and necessary expenses of a full-time director to plan and manage such Teachers Professional Development Institute and to act as liaison between the participating local educational agency and institution of higher education;

(4) to provide staff development, and supplies, and to pay other operating expenses for the development and maintenance of Teachers Professional Development Institutes;

(5) to provide stipends for teachers participating in collaborative seminars in the
sciences and humanities, and to provide renumeration for those members of the higher education faculty who lead the seminars; and

(6) to provide for the dissemination through print and electronic means of curricular units prepared in conjunction with Teachers Professional Development Institutes,

(b) TECHNICAL ASSISTANCE.—The Secretary may use not more than 25 percent of the funds appropriated to carry out this part to provide technical assistance to facilitate the establishment and operation of Teachers Professional Development Institutes. For the purpose of this subsection, the Secretary may contract with existing Teachers Professional Development Institutes to provide all or a part of the technical assistance under this subsection.

SEC. 246. APPLICATION, APPROVAL, AND AGREEMENT.

(a) IN GENERAL.—To receive a grant under this part, a Teachers Professional Development Institute shall submit an application to the Secretary that—

(1) meets the requirement of this part and any regulations under this part;

(2) includes a description of how the Teachers Professional Development Institute intends to use funds provided under the grant;

(3) includes such application as the Secretary may require to apply the criteria described in section 246(b);

(4) includes measurable objectives for the use of the funds provided under the grant; and

(5) contains such other information and assurances as the Secretary may require.

(b) APPROVAL.—The Secretary shall—

(1) upon receipt of an application for a grant under this part, and

(2) notify the applicant within 90 days of the receipt of a completed application of the Secretary’s approval or disapproval of the application.

(c) AGREEMENT.—Upon approval of an application, the Secretary and the Teachers Professional Development Institute shall enter into a comprehensive agreement covering the entire period of the grant.

SEC. 247. REPORTS AND EVALUATION.

(a) REPORTS.—A Teachers Professional Development Institute receiving a grant under this part shall report annually on the progress of the Teachers Professional Development Institute in achieving the purpose of this part and the purposes of the grant.

(b) EVALUATION AND DISSEMINATION.—

(1) EVALUATION.—The Secretary shall evaluate the activities funded under this part and submit an annual report regarding the activities to the Committee on Health, Education, Labor, and Pensions of the Senate and the Committee on Education and the Workforce of the House of Representatives.

(2) DISSEMINATION.—The Secretary shall broadly disseminate successful practices developed by Teachers Professional Development Institutes.

(c) REVOCATION.—If the Secretary determines that a Teachers Professional Development Institute is not making substantial progress in achieving the purpose of this part and the purposes of the grant by the end of the second year of the grant under this part, the Secretary may take appropriate action, including revocation of further payments under the grant, to ensure that the funds available under this part are used in the most effective manner.

SEC. 248. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this part—

(1) $7,000,000 for fiscal year 2007; and

(2) $8,000,000 for fiscal year 2011.

TIITLE IV—STEM EDUCATION AND RESEARCH

SEC. 401. DEFINITIONS.

In this title:

(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) PROFESSIONAL SCIENCE MASTER’S DEGREE PROGRAM.—The term ‘‘professional science master’s degree’’ means a graduate degree program in science and mathematics that extends science training to strategic planning and business management and focuses on industry specialties such as business and information technology (IT), biology and IT (bioinformatics), and computational chemistry.

(3) SERVICE SCIENCE.—The term ‘‘service science’’ means curriculums, research programs, and training regimes, including service sciences, management, and engineering (SSME) programs, that exist or that are being developed to teach individuals to apply technology, organizational process management, and industry-specific knowledge to solve complex problems working in isolation.

(4) SSME.—The term ‘‘SSME’’ means the discipline known as service sciences, management, and engineering that—

(A) applies scientific, engineering, and management disciplines to tasks that one organization performs beneficially for others, generally as part of the services sector of the economy; and

(B) integrates computer science, operations research, industrial engineering, business strategy, management sciences, and social and legal science to encourage innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation.

SEC. 402. GRADUATE FELLOWSHIPS AND GRADUATE TRAINEESHIPS.

(a) GRADUATE RESEARCH FELLOWSHIP PROGRAM.—

(1) IN GENERAL.—During the 5-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 Foundation so that an additional 1250 fellowships are awarded to United States citizens during such period.

(2) EXTENSION OF FELLOWSHIP PERIOD.—The Director of the National Science Foundation shall extend the fellowship period of each fellowships so awarded for the purposes of—

(A) allowing the fellow to complete the requirements for the professional science master’s degree programs.

(3) AUTHORIZATION OF APPROPRIATIONS.—In addition to any other amounts authorized to be appropriated, there are authorized to be appropriated $51,000,000 for each of fiscal years 2008 through 2012.

(b) PILOT PROGRAMS.—

(1) PROGRAM AUTHORIZED.—From amounts appropriated under subsection (c), the Director of the National Science Foundation shall award grants for pilot programs for 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 of the National Science Foundation 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 the 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 use such funding from private industries to support such students.

(3) PREFERENCE FOR ALTERNATIVE FUNDING SOURCES.—The Director of the National Science Foundation shall award grants under this section only to institutions that make awards to 4-year institutions of higher education seeking Federal funding to support professional science master’s degree programs, to those applicants that secure more than ½ 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 of the National Science Foundation 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 a term of 3 years.

(5) EVALUATION AND REPORTS.—

(A) DEVELOPMENT OF PERFORMANCE BENCHMARKS.—Prior to the start of the grant program, in collaboration with 4-year institutions of higher education, the National Science Foundation shall develop performance benchmarks for the purposes of evaluating the effectiveness of the grant program.

(B) ANNUAL REPORT.—The Director of the National Science Foundation shall submit an annual report regarding the grant program to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.
benchmarks to evaluate the pilot programs assisted by grants under this section. 

(B) EVALUATION.—For each year of the grant period, the Director of the National Science Foundation, in consultation with 4-year institutions of higher education, industry, and Federal agencies that employ science-trained personnel, shall complete an evaluation of the pilot programs assisted by grants under this section. Any pilot 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 of the National Science Foundation, in consultation with industries and Federal agencies that employ science-trained personnel, 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) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section $20,000,000 for fiscal year 2007 and such sums as may be necessary for each succeeding fiscal year. 

SEC. 404. INCREASED SUPPORT FOR SCIENCE EDUCATION THROUGH THE NATIONAL SCIENCE FOUNDATION. 

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 107–256, 116 Stat. 3042) the following amounts:

(1) For fiscal year 2007, $35,000,000.

(2) For fiscal year 2008, $50,000,000.

(3) For fiscal year 2009, $90,000,000.

(4) For fiscal year 2010, $150,000,000. 

SEC. 405. A NATIONAL COMMITMENT TO BASIC RESEARCH. 

(a) PLAN FOR INCREASED RESEARCH.—Not later than 180 days after the date of the enactment of this Act, the Director of the National Science Foundation shall submit to Congress a comprehensive, multiyear plan that details how the funds authorized in subsection (b) shall be used. Such plan shall be developed with a focus on utilizing basic research in physical science and engineering to open new directions for the United States economy as a global competitor and leader in productive innovation. 

(b) INCREASED FUNDING FOR NATIONAL SCIENCE FOUNDATION.—There are authorized to be appropriated to the National Science Foundation for the purpose of doubling research funding the following amounts:

(1) $6,410,000,000 for fiscal year 2007.

(2) $7,380,000,000 for fiscal year 2008.

(3) $8,120,000,000 for fiscal year 2009.

(4) $8,960,000,000 for fiscal year 2010.

(5) $9,800,000,000 for fiscal year 2011. 

(c) RECOMMENDATIONS FOR RESEARCH AND DEVELOPMENT FUNDING.—Not later than 1 year after the date of enactment of this Act, the Director of the Office of Science and Technology Policy shall evaluate and, as appropriate, submit to Congress recommendations for increasing funding for research and development in physical sciences and engineering in consultation with agencies and departments of the United States with significant research and development budgets. 

SEC. 406. STUDY ON SERVICE SCIENCE. 

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

(b) STUDY.—Not later than 270 days after the date of the enactment of this Act, the Director of the National Science Foundation shall conduct a study and report to Congress regarding how the Federal Government should engage in partnerships with, education, and training, the new discipline of service science. 

(c) OUTSIDE RESOURCES.—In conducting the study under subsection (b), the Director of the National Science Foundation shall consult with leaders from 2- and 4-year institutions of higher education, leaders from corporations, and other relevant parties. 

By Mr. HARKIN (for himself and Ms. CANTWELL).

S. 3384. A bill to amend the Federal Food, Drug, and Cosmetic Act to extend the food labeling requirements of the Nutrition Labeling and Education Act of 1990 to enable customers to make informed choices about the nutritional content of standard menu items in large chain restaurants; to the Committee on Health, Education, Labor, and Pensions.

Mr. HARKIN. Mr. President, today I am pleased to introduce the Menu Education and Labeling Act, along with my colleague, Senator CANTWELL of Washington. Our bill would extend the successful nutrition labeling that has been on packaged foods since the mid nineties to include foods at chain restaurants. 

There are more than 1 million chain restaurants, and 85 percent of Americans eat out at least once a week. The goal of this bill is to help Americans to take control of their health by giving them the tools that they need to make informed nutrition choices for themselves and their children.

Mr. HARKIN. It is no secret that poor health and the resulting health costs are major problems in the United States. According to the Centers for Medicare and Medicaid Services, total health care spending in the United States in 2004 was $1.8 trillion, and is expected to double by approximately 2014. Furthermore, chronic diseases, which are in many cases preventable, account for approximately 75 percent of health care costs annually.

Poor nutrition, diet-related chronic diseases, overweight, and obesity are public health threats of the first order. Heart disease and stroke are the first and third leading causes of death in the United States and together, they account for nearly 60 percent of all deaths in the United States. In addition, nearly two-thirds of adults are either overweight or obese.

But it is not just adults who are affected by poor diets. Kids are increasingly facing challenges. According to the National Academy of Sciences, over the last three decades, the obesity rate has doubled among preschoolers and adolescents, and tripled for kids between ages 6 and 11. For children born today, it is estimated that 30 percent of boys and girls will develop diabetes. Some scientists are predicting that the current generation of children may well be the first in American history to live shorter lives than their parents, largely because of poor diets and diet-related chronic disease.

The issues are economic as well. The economic impact of chronic disease can be seen in the annual costs associated with various conditions, of which cardiovascular disease and stroke are estimated to cost $352 billion annually. The yearly economic impacts of obesity, cancer, and diabetes are estimated at $177 billion, $78 billion, and $132 billion, respectively. So we need to promote common-sense steps to prevent these conditions. Increasing consumer knowledge is one of them.

This bill will give consumers a much-needed tool to make wiser choices and achieve healthier lifestyles. Will individual steps like this, by themselves, be enough to turn the tide of chronic disease and poor health? Of course not. But we must look for opportunities to give consumers information they can use to take better control of their health.

In 1990, Congress passed the Nutrition Labeling and Education Act, NLEA, required food manufacturers to provide nutrition information on nearly all packaged foods. The impact has been extremely positive. Not only do nearly three-quarters of adults read and use the food labels on packaged foods, but studies indicate that consumers who read labels have healthier diets. It’s time to extend this same opportunity to consumers who want to make smart nutrition choices in restaurants and at vending machines.

And more of Americans’ food dollars are spent in restaurants. Restaurants play an increasingly important role in Americans’ diet and health. But restaurants were excluded from the NLEA.

American adults and children consume a third of their calories at restaurants. Nutrition and health experts say that rising caloric consumption and growing portion sizes are major causes of obesity. We also know that when children eat in restaurants, they consume twice as many calories as when they eat at home. Consumers say that they would like nutrition information provided when they order their food at restaurants. However, while they are fully informed about the nutrition content of food available in supermarkets, consumers at restaurants are almost totally in the dark, left to guess about what is in the foods they are ordering.

This legislation seeks to remedy this so that consumers can make the same informed choices in a restaurant that they are currently able to make in the grocery store.

The legislation requires restaurants to convey only minimal but essential information, including calories, grams of fat and trans fat, and milligrams of sodium for each serving. In addition, it recognizes there may be inadvertent harmful products that affect things such as variations in serving sizes and food preparation, so the bill directs the Secretary of Health and Human Services,