

I appreciate the tireless efforts of the gentleman from Illinois (Mr. KIRK) to keep this case alive. I hope, together with him and his constituents, and my own constituents, for a safe return for these men.

Ms. SCHAKOWSKY. Mr. Speaker, I rise in strong support of a House Resolution 191. House Resolution 191 is of importance to my constituents and to the state of Israel and, as a cosponsor of this legislation, I urge its immediate passage.

House Resolution 191 expresses the sense of the Congress that the United Nations should immediately transfer to the Israeli Government an unedited and uncensored videotape. That videotape contains images which could assist those investigating the October 7, 2000, kidnapping of 3 Israeli Defense Force soldiers, Adi Avitan, Binyamin Avraham, and Omar Souad.

Nine months after the kidnapping, Hezbollah has released no information as to the whereabouts and conditions of these soldiers. While events leading up to the kidnapping remain unknown, the United Nations has admitted to possession of a videotape that contains images which could provide evidence for the investigation into the incident.

It is hard to imagine the level of concern that must be felt by the family members of the three kidnapped soldiers. The fact that the United Nations may have information that could help resolve this situation is also troubling. The United Nations should not be making it more difficult for Israeli authorities and the family members of Adi Avitan, Binyamin Avraham, and Omar Souad. Instead, it should be actively assisting Israeli authorities to secure information about these three individuals. I join my colleagues in strong support of this resolution.

Mr. LANTOS. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. BALLENGER. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore (Mr. MILLER of Florida). The question is on the motion offered by the gentleman from North Carolina (Mr. BALLENGER) that the House suspend the rules and agree to the resolution, House Resolution 191.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds of those present have voted in the affirmative.

Mr. LANTOS. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX and the Chair's prior announcement, further proceedings on this motion will be postponed.

NATIONAL MATHEMATICS AND SCIENCE PARTNERSHIPS ACT

Mr. BOEHLERT. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 1858) to make improvements in mathematics and science education, and for other purposes, as amended.

The Clerk read as follows:

H.R. 1858

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 "National Mathematics and Science Partnerships Act".

SEC. 2. FINDINGS.

The Congress finds the following:

(1) 12 years ago the President of the United States convened the Nation's Governors to establish common goals for the improvement of elementary and secondary education.

(2) Among the National Education Goals established was the goal that by the year 2000 United States students would be first in the world in mathematics and science achievement.

(3) Despite these goals, 8th graders in the United States showed just average performance in mathematics and science in the Third International Mathematics and Science Study-Repeat and demonstrated lower relative performance than the cohort of 4th graders 4 years earlier.

(4) The United States must redouble its efforts to provide all of its students with a world-class education in mathematics, science, engineering, and technology.

(5) The American economy has become the most robust in the world, not through state planning and government intervention, but through the hard work and innovation of its citizens. This success is founded in our constitutional tradition of respect for individual liberty to pursue personal career objectives.

SEC. 3. DEFINITIONS.

In this Act—

(1) the term "Director" means the Director of the National Science Foundation;

(2) the term "institution of higher education" has the meaning given such term by section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001);

(3) the term "eligible nonprofit organization" means a nonprofit research institute or a nonprofit professional association with demonstrated experience delivering mathematics or science education as determined by the Director;

(4) the term "local educational agency" has the meaning given such term by section 14101(19) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(19));

(5) the term "State educational agency" has the meaning given such term by section 14101(29) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(29));

(6) the term "elementary school" has the meaning given that term by section 14101(14) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(14)); and

(7) the term "secondary school" has the meaning given that term by section 14101(26) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801(26)).

SEC. 4. DUPLICATION OF PROGRAMS.

(a) IN GENERAL.—The Director of the National Science Foundation shall review the education programs of the National Science Foundation that are in operation as of the date of enactment of this Act to determine whether any of such programs duplicate the programs authorized in this Act.

(b) IMPLEMENTATION.—(1) As programs authorized in this Act are implemented, the Director shall terminate any existing duplicative program or merge the duplicative program into a program authorized in this Act.

(2) The Director shall not establish any new program that duplicates a program that has been implemented pursuant to this Act.

(c) REPORT.—(1) The Director of the Office of Science and Technology Policy shall review the education programs of the National Science Foundation to ensure compliance with the provisions of this section.

(2) Not later than one year after the date of the enactment of this Act, the Director of the Office of Science and Technology Policy shall complete a report on the review carried out under this subsection and shall submit the report to the Committee on Science, the Committee on Education and the Workforce, and the Committee on Appropriations of the House of Representatives.

(3) Beginning one year after the date of enactment of this Act, the Director of the Office of Science and Technology Policy, shall, as part of the annual budget submission to Congress, submit an updated version of the report required by paragraph (2).

SEC. 5. MATCHING REQUIREMENTS.

The Director may establish matching fund requirements for any programs authorized by this Act except those established in title IV.

SEC. 6. COORDINATION.

In carrying out the activities authorized by this Act, the Director of the National Science Foundation shall consult and coordinate with the Secretary of Education to ensure close cooperation with programs authorized under the Elementary and Secondary Education Act of 1965 (Public Law 89-10).

TITLE I—MATHEMATICS AND SCIENCE EDUCATION PARTNERSHIPS

Subtitle A—Mathematics and Science Education Partnerships

SEC. 101. PROGRAM AUTHORIZED.

(a) IN GENERAL.—(1) The Director shall establish a program to award grants to institutions of higher education or eligible nonprofit organizations (or consortia thereof) to establish mathematics and science education partnership programs to improve the instruction of elementary and secondary science education.

(2) Grants shall be awarded under this section on a merit-reviewed competitive basis.

(b) PARTNERSHIPS.—(1) In order to be eligible to receive a grant under this section, an institution of higher education or eligible nonprofit organization (or consortium thereof) shall enter into a partnership with one or more local educational agencies that may also include a State educational agency or one or more businesses, or both.

(2) A participating institution of higher education shall include mathematics, science, or engineering departments in the programs carried out through a partnership under this subsection.

(c) USES OF FUNDS.—Grants awarded under this section shall be used for activities that draw upon the expertise of the partners to improve elementary or secondary education, or both, in mathematics or science, or both. Such activities may include—

(1) recruiting and preparing students for careers in elementary or secondary mathematics or science education;

(2) offering professional development programs, including summer or academic year institutes or workshops, designed to strengthen the capabilities of existing mathematics and science teachers;

(3) offering innovative programs that instruct teachers on using technology more effectively in teaching mathematics and science, including programs that recruit and train undergraduate and graduate students to provide technical support to teachers;

(4) developing distance learning programs for teachers or students, including developing courses, curricular materials and other

resources for the in-service professional development of teachers that are made available to teachers through the Internet;

(5) offering teacher preparation and certification programs for professional mathematicians, scientists, and engineers who wish to begin a career in teaching;

(6) developing assessment tools to measure student mastery of content and cognitive skills;

(7) developing or adapting elementary and secondary school curricular materials, aligned to State standards, that incorporate contemporary research on the science of learning;

(8) developing undergraduate mathematics and science courses for education majors;

(9) using mathematicians, scientists, and engineers employed by private businesses to help recruit and train mathematics and science teachers;

(10) developing a cadre of master teachers who will promote reform and improvement in schools;

(11) developing and offering mathematics or science enrichment programs for students, including after-school and summer programs;

(12) providing research opportunities in business or academia for students and teachers;

(13) bringing mathematicians, scientists, and engineers from business and academia into elementary and secondary school classrooms; and

(14) any other activities the Director determines will accomplish the goals of this section.

(d) **SCIENCE ENRICHMENT PROGRAMS FOR GIRLS.**—Activities carried out in accordance with subsections (c)(11) and (12) shall include elementary and secondary school programs to encourage the ongoing interest of girls in science, mathematics, engineering, and technology and to prepare girls to pursue undergraduate and graduate degrees and careers in science, mathematics, engineering, or technology. Funds made available through awards to partnerships for the purposes of this subsection may support programs for—

(1) encouraging girls to pursue studies in science, mathematics, engineering, and technology and to major in such fields in postsecondary education;

(2) tutoring girls in science, mathematics, engineering, and technology;

(3) providing mentors for girls in person and through the Internet to support such girls in pursuing studies in science, mathematics, engineering, and technology;

(4) educating the parents of girls about the difficulties faced by girls to maintain an interest and desire to achieve in science, mathematics, engineering, and technology, and enlisting the help of parents in overcoming these difficulties; and

(5) acquainting girls with careers in science, mathematics, engineering, and technology and encouraging girls to plan for careers in such fields.

(e) **RESEARCH IN SECONDARY SCHOOLS.**—Activities carried out in accordance with subsection (c)(11) may include support for research projects performed by students at secondary schools. Uses of funds made available through awards to partnerships for purposes of this subsection may include—

(1) training secondary school mathematics and science teachers in the design of research projects for students;

(2) establishing a system for students and teachers involved in research projects funded under this section to exchange information about their projects and research results; and

(3) assessing the educational value of the student research projects by such means as tracking the academic performance and choice of academic majors of students conducting research.

(f) **STIPENDS.**—Grants awarded under this section may be used to provide stipends for teachers or students participating in training or research activities that would not be part of their typical classroom activities.

SEC. 102. SELECTION PROCESS.

(a) **APPLICATION.**—An institution of higher education or an eligible nonprofit organization (or a consortium thereof) seeking funding under section 101 shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum—

(1) a description of the partnership and the role that each member will play in implementing the proposal;

(2) a description of each of the activities to be carried out, including—

(A) how such activities will be aligned with State and local standards and with other activities that promote student achievement in mathematics and science;

(B) how such activities will be based on a review of relevant research;

(C) why such activities are expected to improve student performance and strengthen the quality of mathematics and science instruction; and

(D) in the case of activities carried out in accordance with section 101(d), how such activities will encourage the interest of women and minorities in mathematics, science, engineering, and technology and will help prepare women and minorities to pursue postsecondary studies in these fields;

(3) a description of the number, size, and nature of any stipends that will be provided to students or teachers and the reasons such stipends are needed;

(4) how the partnership will serve as a catalyst for reform of mathematics and science education programs; and

(5) how the partnership will assess its success.

(b) **REVIEW OF APPLICATIONS.**—In evaluating the applications submitted under subsection (a), the Director shall consider, at a minimum—

(1) the ability of the partnership to effectively carry out the proposed programs;

(2) the extent to which the members of the partnership are committed to making the partnership a central organizational focus;

(3) the degree to which activities carried out by the partnership are based on relevant research and are likely to result in increased student achievement;

(4) the degree to which such activities are aligned with State or local standards; and

(5) the likelihood that the partnership will demonstrate activities that can be widely implemented as part of larger scale reform efforts.

(c) **AWARDS.**—(1) The Director shall ensure, to the extent practicable, that partnership grants be awarded under section 101 in a wide range of geographic areas and that the partnership program include rural, suburban, and urban local educational agencies.

(2) Not less than 50 percent of the partnerships funded under section 101 shall include businesses.

(3) The Director shall award grants under this subtitle for a period not to exceed 5 years.

SEC. 103. ACCOUNTABILITY AND DISSEMINATION.

(a) **ASSESSMENT REQUIRED.**—The Director shall evaluate the partnerships program es-

tablished under section 101. At a minimum, such evaluations shall—

(1) use a common set of benchmarks and assessment tools to identify best practices and materials developed and demonstrated by the partnerships; and

(2) to the extent practicable, compare the effectiveness of practices and materials developed and demonstrated by the partnerships authorized under this subtitle with those of partnerships funded by other State or Federal agencies.

(b) **DISSEMINATION OF RESULTS.**—(1) The results of the evaluations required under subsection (a) shall be made available to the public, including through the National Science, Mathematics, Engineering, and Technology Education Digital Library, and shall be provided to the Committee on Science of the House of Representatives and the Committee on Health, Education, Labor, and Pensions and the Committee on Commerce, Science, and Transportation of the Senate.

(2) Materials developed under the program established under section 101 that are demonstrated to be effective shall be made available through the National Science, Mathematics, Engineering, and Technology Education Digital Library.

(c) **ANNUAL MEETING.**—The Director shall convene an annual meeting of the partnerships participating under this subtitle to foster greater national collaboration.

SEC. 104. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the National Science Foundation to carry out this subtitle \$200,000,000 for each of fiscal years 2002 through 2006.

Subtitle B—Teacher Research Scholarship Program

SEC. 111. PROGRAM AUTHORIZED.

(a) **IN GENERAL.**—(1) The Director shall establish a program to award grants to institutions of higher education or eligible nonprofit organizations (or consortia thereof) to provide research opportunities in mathematics, science, and engineering for elementary or secondary school teachers of mathematics or science. Such institutions of higher education or eligible nonprofit organizations may include one or more businesses or Federal or State laboratories as partners under the program.

(2) Grants shall be awarded under this section on a merit-reviewed competitive basis.

(b) **PROGRAM COMPONENTS.**—Grant recipients under this section—

(1) shall recruit and select teachers and provide such teachers with opportunities to conduct research in academic, business, or government laboratories;

(2) shall ensure that the teachers have mentors and other programming support to ensure that their research experience will contribute to their understanding of mathematics, science, and engineering and improve their performance in the classroom;

(3) shall provide teachers with a scholarship stipend; and

(4) may provide room and board for residential programs.

(c) **USE OF FUNDS.**—(1) Not more than 25 percent of the funds provided under a grant under this section may be used for programming support for teachers.

(2) The Director shall issue guidelines specifying the minimum and maximum amounts of stipends recipients may provide to teachers under this section.

(d) **DURATION.**—A teacher may participate in research under the program under this section for up to 1 calendar year or 2 sequential summers.

SEC. 112. SELECTION PROCESS.

(a) APPLICATION.—An institution of higher education or an eligible nonprofit organization (or a consortium thereof) seeking funding under section 111 shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum—

(1) a description of the research opportunities that will be made available to elementary or secondary school teachers, or both, by the applicant;

(2) a description of how the applicant will recruit teachers to participate in the program and the criteria that will be used to select the participants;

(3) a description of the number, types, and amounts of the scholarships that the applicant intends to offer to participating teachers; and

(4) a description of the programming support that will be provided to participating teachers.

(b) REVIEW OF APPLICATIONS.—In evaluating the applications submitted under subsection (a), the Director shall consider, at a minimum—

(1) the ability of the applicant to effectively carry out the proposed program;

(2) the extent to which the applicant is committed to making the program a central organizational focus; and

(3) the likelihood that the research experiences and programming to be offered by the applicant will improve elementary and secondary education.

(c) AWARDS.—(1) The Director shall ensure, to the extent practicable, that grants be awarded under this subtitle in a wide range of geographic areas and to assist teachers from rural, suburban, and urban local educational agencies.

(2) The Director shall award grants under this subtitle for a period not to exceed 5 years.

SEC. 113. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for the National Science Foundation to carry out this subtitle \$15,000,000 for each of fiscal years 2002 through 2006.

TITLE II—NATIONAL SCIENCE, MATHEMATICS, ENGINEERING, AND TECHNOLOGY EDUCATION DIGITAL LIBRARY**SEC. 201. IN GENERAL.**

The Director shall establish a program to expand the National Science, Mathematics, Engineering, and Technology Education Digital Library (hereinafter in this Act referred to as the "Digital Library") program to enable timely and continuous dissemination of elementary and secondary science, mathematics, engineering, and technology educational resources, materials, practices, and policies through the Internet and other digital technologies. The expanded Digital Library shall—

(1) contain an Internet-based repository of curricular materials, practices, and teaching modules;

(2) contain, to the extent practicable, an Internet-based repository of information about national and regional conferences related to the improvement of elementary and secondary mathematics, science, engineering, and technology education, including, if appropriate, links to materials generated by those conferences.

(3) provide users of the Digital Library with access to all materials in the Digital Library through a single entry point;

(4) contain only materials that have been peer-reviewed and tested to ensure factual accuracy and effectiveness and that are

aligned with recognized State and other widely recognized professional and technical mathematics and science standards;

(5) present materials in a format that is consistent, facilitates ease of comparison and use by classroom teachers, and contains appropriate links to other Federal educational clearinghouses; and

(6) provide materials related to mathematics and science partnership programs, including—

(A) links to all of the programs developed through the mathematics and science partnerships established under subtitle A of title I;

(B) data related to assessment and evaluation and final program reports developed under subtitle A of title I, including both positive and negative outcomes of the program;

(C) materials developed by the partnerships under subtitle A of title I that have been demonstrated to be effective; and

(D) a mechanism for users to make comments or suggestions regarding the use and effectiveness of posted materials.

SEC. 202. GRANTS AND CONTRACT.

(a) GRANTS.—The Director may award grants to institutions of higher education or other qualified entities—

(1) to design all or parts of the Digital Library;

(2) to provide assistance to schools in the selection and adaptation of curricular materials, practices, and teaching methods made available through the Digital Library; or

(3) to carry out the activities described in both paragraphs (1) and (2).

Grants awarded under this subsection may cover the costs of acquiring and reviewing educational materials for dissemination through the Digital Library.

(b) OPERATION.—The Director may contract out the operation and management of the Digital Library.

(c) COMPETITIVE AWARDS.—Grants and contracts shall be awarded under this section on a competitive basis.

SEC. 203. CONSTRUCTION.

Nothing in this Act shall affect the rights, remedies, limitations, or defenses under title 17, United States Code.

SEC. 204. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for the National Science Foundation to carry out this title \$20,000,000 for each of fiscal years 2002 through 2006.

TITLE III—STRATEGIC EDUCATION RESEARCH PROGRAM**Subtitle A—Centers****SEC. 301. ESTABLISHMENT OF CENTERS FOR RESEARCH ON LEARNING AND EDUCATION IMPROVEMENT.**

(a) IN GENERAL.—(1) The Director shall award grants to institutions of higher education (or consortia thereof) to establish 4 multidisciplinary Centers for Research on Learning and Education Improvement.

(2) Grants shall be awarded under this subsection on a merit-reviewed competitive basis.

(b) PURPOSE.—The purpose of the Centers shall be to conduct and evaluate research in cognitive science, education and related fields and to develop ways in which the results of such research can be applied in elementary and secondary classrooms to improve the teaching of mathematics and science.

(c) FOCUS.—(1) Each Center shall be focused on a different challenge faced by elementary or secondary school teachers of mathematics and science. In determining the research

focus of the Centers, the Director shall consult with the National Academy of Sciences and take into account the extent to which other Federal programs support research on similar questions.

(2) The proposal solicitation issued by the Director shall state the focus of each Center and applicants shall apply for designation as a specific Center.

SEC. 302. SELECTION PROCESS.

(a) APPLICATION.—An institution of higher education (or a consortium of such institutions) seeking funding under this title shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of—

(1) the initial research projects that will be undertaken by the Center and the process by which new projects will be identified;

(2) how the Center will work with other research institutions and schools to broaden the national research agenda on learning and teaching;

(3) how the Center will promote active collaboration among physical, biological, and social science researchers;

(4) how the Center will promote active participation by elementary and secondary mathematics and science teachers and administrators; and

(5) how the Center will reduce the results of its research to educational practice and assess the success of new practices.

(b) REVIEW OF APPLICATIONS.—In evaluating the applications submitted under subsection (a), the Director shall consider, at a minimum—

(1) the ability of the applicant to effectively carry out the research program and reduce its results to effective educational practice;

(2) the experience of the applicant in conducting research on the science of teaching and learning and the capacity of the applicant to foster new multidisciplinary collaborations;

(3) the capacity of the applicant to attract precollege educators from a diverse array of schools and professional experiences for participation in Center activities; and

(4) the capacity of the applicant to attract and provide adequate support for graduate students to pursue research at the intersection of educational practice and basic research on human cognition and learning.

(c) AWARDS.—The Director shall ensure, to the extent practicable, that the Centers funded under this section conduct research and develop educational practices designed to improve the educational performance of a broad range of students, including those from groups underrepresented in mathematics, science, and engineering.

SEC. 303. ANNUAL CONFERENCE.

The Director shall convene an annual meeting of the Centers to foster collaboration among the Centers and to further disseminate the results of the Centers' activities.

SEC. 304. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for the National Science Foundation to carry out this title \$12,000,000 for each of fiscal years 2002 through 2006.

Subtitle B—Fellowships**SEC. 311. EDUCATION RESEARCH TEACHER FELLOWSHIPS.**

(a) ESTABLISHMENT.—(1) The Director shall establish a program to award grants to institutions of higher education or eligible nonprofit entities (or consortia thereof) to provide research opportunities related to the

science of learning to elementary and secondary school teachers of science and mathematics.

(2) Grants shall be awarded under this section on a merit-reviewed competitive basis.

(b) PROGRAM COMPONENTS.—Grant recipients under this section—

(1) shall recruit and select teachers and provide such teachers with opportunities to conduct research in the fields of—

(A) brain research as a foundation for research on human learning;

(B) behavioral, cognitive, affective, and social aspects of human learning;

(C) science and mathematics learning in formal and informal educational settings; or

(D) learning in complex educational systems;

(2) shall ensure that participating teachers have mentors and other programming support to ensure that their research experience will contribute to their understanding of the science of learning;

(3) shall provide programming, guidance, and support to ensure that participating teachers disseminate information about the current state of education research and its implications for classroom practice to other elementary and secondary educators and can use that information to improve their performance in the classroom;

(4) shall provide participating teachers with a scholarship stipend; and

(5) may provide room and board for residential programs.

(c) USE OF FUNDS.—(1) Not more than 25 percent of the funds provided under a grant under this section may be used for programming support for participating teachers.

(2) The Director shall issue guidelines specifying the minimum or maximum amounts of stipends grant recipients may provide to teachers under this section.

(d) DURATION.—A teacher may participate in research under the program under this section for up to 1 calendar year or 2 sequential summers.

(e) APPLICATION.—An institution of higher education or eligible nonprofit entity (or a consortium thereof) seeking funding under this section shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum—

(1) a description of the research opportunities that will be made available to elementary or secondary school teachers, or both, by the applicant;

(2) a description of how the applicant will recruit teachers to participate in the program, and the criteria that will be used to select the participants;

(3) a description of the number, types, and amounts of the scholarships that the applicant intends to offer to participating teachers; and

(4) a description of the programming support that will be provided to participating teachers to enhance their research experience and to enable them to educate their peers about the value, findings, and implications of education research.

(f) REVIEW OF APPLICANTS.—In evaluating the applications submitted under subsection (e), the Director shall consider, at a minimum—

(1) the ability of the applicant to effectively carry out the proposed program;

(2) the extent to which the applicant is committed to making the program a central organizational focus; and

(3) the likelihood that the research experiences and programming to be offered by the

applicant will improve elementary and secondary education.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation for carrying out this section \$5,000,000 for each of fiscal years 2002 through 2004.

TITLE IV—ROBERT NOYCE SCHOLARSHIP PROGRAM

SEC. 401. DEFINITIONS.

In this title—

(1) the term “mathematics and science teacher” means a mathematics, science, or technology teacher at the elementary or secondary school level;

(2) the term “mathematics, science, or engineering professional” means a person who holds a baccalaureate, masters, or doctoral degree in science, mathematics, or engineering and is working in that field or a related area;

(3) the term “scholarship” means an award under section 405; and

(4) the term “scholarship recipient” means a student receiving a scholarship;

(5) the term “stipend” means an award under section 406;

(6) the term “stipend recipient” means a science, mathematics, or engineering professional receiving a stipend; and

(7) the term “cost of attendance” has the meaning given such term in section 472 of the Higher Education Act of 1965 (20 U.S.C. 10871l).

SEC. 402. SCHOLARSHIP PROGRAM.

(a) IN GENERAL.—(1) The Director shall establish a program to award grants to institutions of higher education (or consortia of such institutions) to provide scholarships and programming designed to recruit and train mathematics and science teachers. Such program shall be known as the “Robert Noyce Scholarship Program”.

(2) Grants shall be provided under this section on a merit-reviewed competitive basis.

(b) USE OF GRANTS.—Grants provided under this title shall be used by institutions of higher education—

(1) to develop and implement a program to encourage top college juniors and seniors majoring in mathematics, science, and engineering at the grantee’s institution to become mathematics and science teachers, through—

(A) administering scholarships in accordance with section 405;

(B) offering programs to help scholarship recipients to teach in elementary and secondary schools, including programs that will result in teacher certification; and

(C) offering programs to scholarship recipients, both before and after they receive their baccalaureate degree, to enable the recipients to become better mathematics and science teachers, and to exchange ideas with others in their fields; or

(2) to develop and implement a program to encourage science, mathematics, or engineering professionals to become mathematics and science teachers, through—

(A) administering stipends in accordance with section 406;

(B) offering programs to help stipend recipients obtain teacher certification; and

(C) offering programs to stipend recipients, both during and after matriculation, to enable recipients to become better mathematics and science teachers and exchange ideas with others in their fields; or

(3) for both of the purposes described in paragraphs (1) and (2).

SEC. 403. SELECTION PROCESS.

(a) APPLICATION.—An institution of higher education (or a consortium of such institu-

tions) seeking funding under this title shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum—

(1) a description of the scholarship or stipend program, or both, that the applicant intends to operate, including the number of scholarships or the size and number of stipends the applicant intends to award, and the selection process that will be used in awarding the scholarships or stipends;

(2) evidence that the applicant has the capability to administer the scholarship or stipend program in accordance with the provisions of this title; and

(3) a description of the programming that will be offered to scholarship or stipend recipients during and after their matriculation.

(b) REVIEW OF APPLICATIONS.—In evaluating the applications submitted under subsection (a), the Director shall consider, at a minimum—

(1) the ability of the applicant to effectively carry out the program;

(2) the extent to which the applicant is committed to making the program a central organizational focus;

(3) the ability of the proposed programming to enable scholarship or stipend recipients to become successful mathematics and science teachers;

(4) the number and quality of the students that will be served by the program; and

(5) the ability of the applicant to recruit students who would otherwise not pursue a career in teaching.

SEC. 404. AWARDS.

(a) DESIGNATION.—The Director shall designate institutions awarded grants under this title as “National Teacher Scholarship Centers”.

(b) DISTRIBUTION.—The Director shall ensure, to the extent practicable, that grants be awarded under this title in a wide range of geographic areas and to prepare students for jobs in rural, suburban, and urban local educational agencies.

(c) DURATION.—Grants awarded under this title shall be for a period of 10 years.

SEC. 405. SCHOLARSHIP REQUIREMENTS.

(a) IN GENERAL.—Scholarships under this title shall be available only to students who are—

(1) majoring in science, mathematics, or engineering; and

(2) in the last 2 years of a baccalaureate degree program.

(b) SELECTION.—Individuals shall be selected to receive scholarships primarily on the basis of academic merit, with consideration given to financial need and to the goal of promoting the participation of minorities, women, and people with disabilities.

(c) AMOUNT.—Scholarships under this title shall be in the amount of \$7,500 per year, or the cost of attendance, whichever is less. Individuals may receive a maximum of 2 years of scholarship support.

(d) SERVICE OBLIGATION.—If an individual receives a scholarship, that individual shall be required to complete, within 6 years after graduation from the baccalaureate degree program for which the scholarship was awarded, 2 years of service as a mathematics or science teacher for each year a scholarship was received. Service required under this subsection shall be performed at a school receiving assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965 (Public Law 89-10).

SEC. 406. STIPENDS.

(a) **IN GENERAL.**—Stipends under this title shall be available only to mathematics, science, and engineering professionals who, while receiving the stipend, are enrolled in a program to receive certification to teach.

(b) **SELECTION.**—Individuals shall be selected to receive stipends under this title primarily on the basis of academic merit, with consideration given to financial need and to the goal of promoting the participation of minorities, women, and people with disabilities.

(c) **AMOUNT.**—Stipends under this title shall be for an amount of up to \$7,500 per year, but in no event more than the cost of attendance. Individuals may receive a maximum of 1 year of stipend support.

(d) **SERVICE OBLIGATION.**—If an individual receives a stipend under this title, that individual shall be required to complete, within 6 years after graduation from the program for which the stipend was awarded, 2 years of service as a mathematics or science teacher for each year a stipend was received. Service required under this subsection shall be performed at a school receiving assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965 (Public Law 89-10).

SEC. 407. CONDITIONS OF SUPPORT.

As a condition of acceptance of a scholarship or stipend under this title, a recipient shall enter into an agreement with the institution of higher education—

(1) accepting the terms of the scholarship or stipend pursuant to sections 405 and 409 or section 406;

(2) agreeing to provide the awarding institution of higher education with annual certification of employment and current contact information and to participate in surveys provided by the institution of higher education as part of an ongoing assessment program; and

(3) establishing that any scholarship recipient shall be liable to the United States for any amount that is required to be repaid in accordance with the provisions of section 409.

SEC. 408. COLLECTION FOR NONCOMPLIANCE.

(a) **MONITORING COMPLIANCE.**—An institution of higher education (or consortium thereof) receiving a grant under this title shall, as a condition of participating in the program, enter into an agreement with the Director to monitor the compliance of scholarship and stipend recipients with their respective service requirements.

(b) **COLLECTION OF REPAYMENT.**—(1) In the event that a scholarship recipient is required to repay the scholarship under section 409, the institution shall be responsible for collecting the repayment amounts.

(2) Except as provided in paragraph (3), any repayment shall be returned to the Treasury of the United States.

(3) A grantee may retain a percentage of any repayment it collects to defray administrative costs associated with the collection. The Director shall establish a single, fixed percentage that will apply to all grantees.

SEC. 409. FAILURE TO COMPLETE SERVICE OBLIGATION.

(a) **GENERAL RULE.**—If an individual who has received a scholarship under this title—

(1) fails to maintain an acceptable level of academic standing in the educational institution in which the individual is enrolled, as determined by the National Science Foundation;

(2) is dismissed from such educational institution for disciplinary reasons;

(3) withdraws from the baccalaureate degree program for which the award was made before the completion of such program;

(4) declares that the individual does not intend to fulfill his service obligation under this title; or

(5) fails to fulfill the service obligation of the individual under this title, such individual shall be liable to the United States as provided in subsection (b).

(b) **AMOUNT OF REPAYMENT.**—(1) If a circumstance described in subsection (a) occurs before the completion of one year of a service obligation under this title, the United States shall be entitled to recover from the individual, within one year after the date of the occurrence of such circumstance, an amount equal to—

(A) the total amount of awards received by such individual under this title; plus

(B) the interest on such amounts which would be payable if at the time the amounts were received they were loans bearing interest at the maximum legal prevailing rate, as determined by the Treasurer of the United States, multiplied by 2.

(2) If a circumstance described in subsection (a)(4) or (a)(5) occurs after the completion of one year of a service obligation under this title, the United States shall be entitled to recover from the individual, within one year after the date of the occurrence of such circumstance, an amount equal to—

(A) the total amount of awards received by such individual under this title minus \$3,750 for each full year of service completed; plus

(B) the interest on such amounts which would be payable if at the time the amounts were received they were loans bearing interest at the maximum legal prevailing rate, as determined by the Treasurer of the United States.

(c) **EXCEPTIONS.**—(1) The National Science Foundation may provide for the partial or total waiver or suspension of any service obligation or payment by an individual under this title whenever compliance by the individual is impossible or would involve extreme hardship to the individual, or if enforcement of such obligation with respect to the individual would be unconscionable.

(2) Any obligation of an individual under this title for payment under subsection (b) may be released by a discharge in bankruptcy under title 11, United States Code, only if such discharge is granted after the expiration of the 5-year period beginning on the first date that such payment is required.

SEC. 410. REPORT.

(a) **DATA COLLECTION.**—Institutions receiving grants under this title shall supply to the Director any relevant statistical and demographic data on scholarship recipients and stipend recipients the Director may request, including information on employment required by section 407.

(b) **ASSESSMENT.**—Not later than 7 years after the date of the enactment of this Act, the Director shall submit to Congress a report assessing the impact of the implementation of this title on drawing into teaching top mathematics and science students, including students from groups underrepresented in mathematics, science, and engineering.

SEC. 411. AUTHORIZATION OF APPROPRIATIONS.

(a) **IN GENERAL.**—There are authorized to be appropriated to the National Science Foundation to carry out this title \$20,000,000 for each of fiscal years 2002 through 2005.

(b) **SPECIFIC APPROPRIATIONS.**—There are authorized to be appropriated to the National Science Foundation to support the activities described in subsections (b)(1)(A) and (C) and (b)(2)(A) and (C) of section 402, such sums as may be necessary for each of fiscal years 2006 through 2011.

TITLE V—REQUIREMENTS FOR RESEARCH CENTERS**SEC. 501. REQUIREMENTS FOR RESEARCH CENTERS.**

The Director shall ensure that any National Science Foundation program that awards grants for the establishment of research centers at institutions of higher education after the date of the enactment of this Act—

(1) requires that every center offer programs for elementary and secondary mathematics and science teachers and students to increase their understanding of the field in which the center specializes; and

(2) uses the quality of a center's proposed precollege education programs as a criterion in determining grant awards.

TITLE VI—EDUCATIONAL TECHNOLOGIES**Subtitle A—Research Centers****SEC. 601. EDUCATIONAL TECHNOLOGY RESEARCH CENTERS.**

(a) **IN GENERAL.**—(1) The Director shall establish a program to award grants to institutions of higher education (or consortia thereof) to establish centers to evaluate and improve the effectiveness of information technologies in elementary and secondary mathematics and science education.

(2) Grants shall be awarded under this subtitle on a merit-reviewed competitive basis.

(b) **ACTIVITIES.**—Centers established under this subtitle shall, at a minimum—

(1) identify educational approaches and techniques that are based on the use of information technology and that have the potential for being effective in classroom settings;

(2) develop methods to measure the effectiveness of various applications of information technology in mathematics and science education, including methods to measure student performance;

(3) evaluate the effectiveness of the use of technology in elementary and secondary mathematics and science education in a variety of classroom settings; and

(4) identify the key variables that influence educational effectiveness and the conditions necessary to implement successfully an approach or technique determined to be educationally effective for a particular educational setting;

(5) ensure that the results of such evaluations are widely disseminated; and

(6) develop a program to work with local educational agencies to help them apply the results of the research conducted under this section.

SEC. 602. SELECTION PROCESS.

(a) **APPLICATION.**—An institution of higher education (or a consortium of such institutions) seeking funding under this subtitle shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require. The application shall include, at a minimum, a description of—

(1) the approaches to the use of information technology that the center will initially evaluate, how it chose those approaches, how it will seek out any additional approaches, and how assessment procedures would be developed and applied;

(2) how the center will work with local educational agencies to evaluate the approaches in classrooms;

(3) how the center will disseminate the results of its work; and

(4) how the center will develop an outreach program to work with local educational agencies to help them apply the results of its research.

(b) **REVIEW OF APPLICATIONS.**—In evaluating the applications submitted under subsection (a), the Director shall consider, at a

minimum, the ability of the applicant to effectively evaluate information technology approaches and to help local educational agencies apply the results of those evaluations.

(c) AWARDS.—The Director shall ensure, to the extent practicable, that the program established under this subtitle evaluates information technology—

(1) in a wide range of grade levels and geographic areas;

(2) in rural, suburban, and urban schools; and

(3) with a wide variety of students in terms of race, ethnicity, and income.

SEC. 603. DOCUMENTATION AND DISSEMINATION OF RESULTS.

(a) IN GENERAL.—The results of the research and evaluations conducted in accordance with section 601 shall be documented and widely disseminated, including through publication in peer-reviewed scholarly journals.

(b) WORKSHOPS, CONFERENCES, AND WEB SITES.—The Director is authorized to sponsor and support workshops, conferences, and dedicated web sites to disseminate information about the activities of the educational technology research centers established under section 601.

(c) DEPOSIT IN LIBRARY.—Information about effective approaches and techniques, including information and materials necessary for their implementation, shall be deposited in the Digital Library.

SEC. 604. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the National Science Foundation to carry out the program established under section 601—

(1) \$25,000,000 for each of fiscal years 2002 through 2004; and

(2) \$30,000,000 for each of fiscal years 2005 and 2006.

Subtitle B—Assistance

SEC. 611. EDUCATIONAL TECHNOLOGY ASSISTANCE.

Section 3 of the Scientific and Advanced Technology Act of 1992 (Public Law 102-476; 42 U.S.C. 1862i) is amended by redesignating subsections (d), (e), (f), and (g) as subsections (e), (f), (g), and (h), respectively, and by inserting after subsection (c) the following new subsection:

“(d) EDUCATIONAL TECHNOLOGY ASSISTANCE.—

“(1) IN GENERAL.—The Director may make awards on a competitive, merit-reviewed basis to associate-degree granting colleges, bachelor-degree granting institutions, or education service agencies (or consortia thereof) to establish centers to assist elementary and secondary schools in the use of information technology for mathematics, science, or technology instruction.

“(2) ACTIVITIES.—Activities of centers funded under this subsection may include—

“(A) helping schools evaluate their need for information technology;

“(B) training teachers on how to best use information technology in instruction; and

“(C) providing other information and training to help schools and teachers ensure that they have access to appropriate information technologies and are using them to maximum advantage.

“(3) APPLICATION.—An application to receive funds under this subsection shall include, at a minimum—

“(A) a description of the services that will be provided to schools and teachers;

“(B) a list of the schools expected to be served;

“(C) a description of how the applicant will draw on the expertise of its faculty and students to assist schools and teachers; and

“(D) a description of how the applicant will operate the program after funding made available by this subsection has expired.

“(4) SELECTION.—In evaluating applications submitted under paragraph (3), the Director shall consider, at a minimum—

“(A) the ability of the applicant to effectively carry out the program;

“(B) the number of schools and students who would be served and the their need for assistance;

“(C) the extent to which the applicant has worked with participating schools to ensure that priority problems would be addressed by the assistance provided under this subsection; and

“(D) the ability of the applicant to continue to provide assistance after funding under this subsection has expired.

“(5) AWARDS.—(A) The Director shall ensure, to the extent practicable, that the program established by this subsection assists schools in rural, suburban, and urban areas.

“(B) No institution shall receive funds under this subsection for more than three years.

“(C) An institution receiving a grant under subtitle A of title VI of the National Mathematics and Science Partnerships Act may participate in the program created by this section.

“(6) REPORT.—Not later than April 1, 2005, the Director shall provide a report to Congress assessing the success of the program funded under this subsection and the need of schools for continued assistance, and, based on the experience with the program, recommending ways information technology assistance to schools could be made more broadly available.

“(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation to carry out this subsection \$5,000,000 for each of the fiscal years 2002 through 2004.”.

TITLE VII—MISCELLANEOUS PROVISIONS

SEC. 701. MATHEMATICS AND SCIENCE PROFICIENCY SCHOLARSHIPS.

(a) FINDINGS.—Congress finds the following:

(1) Proficiency in mathematics, science, and information technology is necessary to prepare all students in the United States for participation in the 21st century and to guarantee that the United States economy remains vibrant and competitive.

(2) In order to achieve such results, it is important that the Federal Government shows interest in economically disadvantaged students who have not been provided with opportunities that will improve their knowledge of mathematics, science, and technology.

(3) Many economically disadvantaged students in urban and rural America share a common need to receive a quality education, but often the schools of such students lack the needed resources to lift those students into the information age.

(4) The schools and businesses serving urban and rural communities are strategically positioned to form a unique partnership with students that will increase their mathematics, science, and technology proficiency and encourage and support their undergraduate study in those fields for the benefit of the Nation.

(b) IN GENERAL.—The Director shall establish a demonstration project to encourage businesses to offer scholarships to eligible students (to enable them to attend institu-

tions of higher education) by providing grants to improve mathematics, science, or technology education in the schools attended by the eligible students.

(c) USE OF FUNDS.—(1) The Director shall provide grants under this section to local educational agencies on a merit-reviewed, competitive basis.

(2) Funds awarded under this subsection may be used to—

(A) provide teacher professional development in mathematics, science, or technology;

(B) develop or implement mathematics, science, or technology curriculums, and to purchase related equipment; and

(C) to carry out other activities the Director determines would improve mathematics, science, or technology education.

(d) ELIGIBLE LOCAL EDUCATIONAL AGENCIES.—For purposes of this section, a local educational agency is eligible to receive a grant under this section if the agency—

(1) provides assurances that it has executed conditional agreements with representatives of the private sector to provide services and funds described in subsection (e); and

(2) agrees to enter into an agreement with the Director to comply with the requirements of this section.

(e) PRIVATE SECTOR PARTICIPATION.—The conditional agreements referred to in subsection (d)(1) shall describe participation by the private sector, including—

(1) the donation of computer hardware, software, and other technology tools;

(2) the establishment of internship and mentoring opportunities for students who participate in the mathematics, science, and information technology program; and

(3) the donation of higher education scholarship funds for eligible students to continue their study of mathematics, science, and information technology.

(f) APPLICATION.—(1) To apply for a grant under this section, each eligible local educational agency shall submit an application to the Director in accordance with guidelines established by the Director pursuant to paragraph (2).

(2)(A) The guidelines referred to in paragraph (1) shall require, at a minimum, that the application include—

(i) a description of proposed activities consistent with the uses of funds and program requirements under subsection (c);

(ii) a description of the higher education scholarship program, including criteria for selection, duration of scholarship, number of scholarships to be awarded each year, and funding levels for scholarships; and

(iii) evidence of private sector participation and financial support to establish an internship, mentoring, and scholarship program.

(B) The Director shall issue and publish such guidelines not later than 6 months after the date of the enactment of this Act.

(g) PRIORITY.—The Director shall give special priority in awarding grants under this section to eligible local educational agencies that—

(1) demonstrate the greatest ability to obtain commitments from representatives of the private sector to provide services and funds described under subsection (e); and

(2) demonstrate the greatest economic need.

(h) ASSESSMENT.—The Director shall assess the effectiveness of activities carried out under this section.

(i) STUDY AND REPORT.—The Director—

(1) shall initiate an evaluative study of the effectiveness of the activities carried out

under this section in improving student performance in mathematics, science, and information technology at the precollege level and in stimulating student interest in pursuing undergraduate studies in those fields; and

(2) shall report the findings of the study to Congress not later than 4 years after the award of the first scholarship.

Such report shall include the number of students graduating from an institution of higher education with a major in mathematics, science, or information technology and the number of students who find employment in such fields.

(j) DEFINITIONS.—In this section:

(1) The term “conditional agreement” means an arrangement between representatives of the private sector and local educational agencies to provide certain services and funds, such as, but not limited to, the donation of computer hardware and software, the establishment of internship and mentoring opportunities for students who participate in mathematics, science, and information technology programs, and the donation of scholarship funds for use at institutions of higher education by eligible students who have participated in the mathematics, science, and information technology programs.

(2) The term “eligible student” means a student enrolled in the 12th grade who—

(A) has participated in a mathematics, science, and an information technology program established pursuant to this section;

(B) has demonstrated a commitment to pursue a career in information technology, mathematics, science, or engineering; and

(C) has attained high academic standing and maintains a grade point average of not less than 2.7 on a 4.0 scale for the period from the beginning of the 10th grade through the time of application for a scholarship.

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation to carry out this section \$5,000,000 for each of fiscal years 2002 through 2004.

(l) MAXIMUM GRANT AWARD.—An award made to an eligible local educational agency under this section may not exceed \$300,000.

SEC. 702. ARTICULATION PARTNERSHIPS BETWEEN COMMUNITY COLLEGES AND SECONDARY SCHOOLS.

(a) OUTREACH GRANTS.—In making awards for outreach grants authorized under section 3(c)(2) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(c)(2)), the Director shall give priority to proposals that involve secondary schools with a majority of students from groups that are underrepresented in the science, mathematics, and engineering workforce. Awards in such cases shall not be subject to the requirement under section 3(f)(3) of such Act for a matching contribution.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the National Science Foundation to carry out this section \$5,000,000 for each of fiscal years 2002 through 2004.

SEC. 703. ASSESSMENT OF IN-SERVICE TEACHER PROFESSIONAL DEVELOPMENT PROGRAMS.

(a) ASSESSMENT.—The Director shall review all programs sponsored by the National Science Foundation that support in-service teacher professional development for science teachers to determine—

(1) the level of resources and degree of emphasis placed on training teachers in the effective use of information technology in the classroom; and

(2) the allocation of resources between summer activities and follow-on reinforcement training and support to participating teachers during the school year.

(b) REPORT.—The Director shall submit to Congress, not later than 1 year after the date of the enactment of this Act, a report that—

(1) describes the results of the review and assessment conducted under subsection (a);

(2) summarizes the major categories of in-service teacher professional development activities supported at the time of the review, and the funding levels for such activities; and

(3) describes any proposed changes, including new funding allocations, to strengthen the in-service teacher professional development programs of the National Science Foundation that support activities described in paragraphs (1) and (2) of subsection (a).

SEC. 704. STUDY OF BROADBAND NETWORK ACCESS FOR SCHOOLS AND LIBRARIES.

(a) REPORT TO CONGRESS.—The Director shall conduct a study of the issues described in subsection (c), and not later than 1 year after the date of the enactment of this Act, transmit to Congress a report including recommendations to address those issues. Such report shall be updated annually for 6 additional years.

(b) CONSULTATION.—In preparing the reports under subsection (a), the Director shall consult with the National Aeronautics and Space Administration, the National Institute of Standards and Technology, and such other Federal agencies and educational entities as the Director considers appropriate.

(c) ISSUES TO BE ADDRESSED.—The reports shall—

(1) identify the current status of high-speed, large bandwidth capacity access to all public elementary and secondary schools and libraries in the United States;

(2) identify how the provision of high-speed, large bandwidth capacity access to the Internet to such schools and libraries can be effectively utilized within each school and library;

(3) consider the effect that specific or regional circumstances may have on the ability of such institutions to acquire high-speed, large bandwidth capacity access to achieve universal connectivity as an effective tool in the education process; and

(4) include options and recommendations to address the challenges and issues identified in the reports.

The SPEAKER pro tempore. Pursuant to the rule, the gentleman from New York (Mr. BOEHLERT) and the gentleman from Texas (Mr. HALL) each will control 20 minutes.

The Chair recognizes the gentleman from New York (Mr. BOEHLERT).

GENERAL LEAVE

Mr. BOEHLERT. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks and include extraneous material on H.R. 1858.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. BOEHLERT. I yield myself such time as I may consume.

Mr. Speaker, I am pleased to bring before the House today H.R. 1858, the National Mathematics and Science Partnerships Act. I want to thank the

leadership for placing it on the suspension calendar. This bill belongs on the suspension calendar, which is reserved for noncontroversial items, because it is a result of a fair and deliberative process and it is designed to achieve goals we all share.

Let me talk first about the process. This bill brings together ideas that originated in the President's education plan, in the version of H.R. 1858 that was introduced by me, and in the largely complementary earlier bill, H.R. 1693, that was introduced by the gentleman from Texas (Mr. HALL), the ranking member.

In addition, we worked in a bipartisan fashion to include proposals by a wide variety of Members, including the gentleman from Michigan (Mr. SMITH), who chairs the Subcommittee on Research; the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), who is the ranking member on that subcommittee; and numerous other Members on both sides of the aisle. We did that by adjusting all the proposals to fit within the structure, the philosophy and expenditures already in the bill. Every time someone came up with a good idea, we did not just up the ante or go off in a different direction, we were disciplined; and we fit it all within the structure and the philosophy and expenditures in the bill. As a result, the bill was passed by voice vote at both subcommittee and full committee. Then we had further discussions with our friends on the Committee on Education and the Workforce and made additional changes in response to their concerns.

We added language, for example, to ensure coordination between the National Science Foundation and the Department of Education, coordination that should occur automatically but often does not. So I want to thank the gentleman from Ohio (Mr. BOEHNER) of the Committee on Education and the Workforce for his cooperation. As a result of that cooperation, the Committee on Education and the Workforce discharged the bill with an exchange of letters to protect each of our jurisdictions. Then we had an additional set of discussions with the Republican Study Committee and made additional changes sought by that group to ensure that we did not end up with duplicate programs within the National Science Foundation. I want to thank Neil Bradley of the RSC staff for facilitating those discussions.

So the bill we are bringing to the floor reflects an open and fair process of consultation with anyone and everyone who has had an interest in this bill, and its broad support within this body reflects that.

Of course, none of that process would matter if we were not doing something of significance here, and we are. This bill will allow our Nation to make major forward strides in the critically

important task of improving K–12 math and science education. We have all spent a lot of time pointing to the studies that show how poorly our students do compared with their international counterparts in math and science. In this bill, we are doing something about it. The basic premise of the bill is simple. We need to do more to bring the resources and expertise of academia and business to bear on improving K–12 education. It is a simple premise, as I say; but its simplicity has not so far led to its realization.

There remains a gulf between our world-class institutions of higher education and our troubled institutions of elementary and secondary education. There remains a gulf between our business community, which demands a better trained workforce, and our school systems, which educate that future workforce. There remains a gulf between our stated desire for more and better teachers, better curriculum and better educational reforms, and what we are actually investing to achieve those goals. This bill is an effort to bridge all of those gulfs.

The bill authorizes a number of programs at the National Science Foundation, an agency with a long and proud history of awarding funds on a competitive, merit-reviewed basis to the best proposals that originate around the country. It authorizes programs that will encourage our colleges and universities and businesses to help school systems train teachers, develop new teaching methods, find better ways to use educational technology, apply the latest research in cognitive sciences, and prepare and gain access to better teaching materials.

I want to call Members' attention to two of those programs in particular. The first is the President's math and science partnerships. President Bush deserves the gratitude of all Americans for focusing on education in general and on math and science education in particular. He made the wise decision to have the National Science Foundation run his marquee math and science initiative. We have funded this initiative at the level requested by the President, and we have structured it to ensure that colleges and universities work together with school districts without excessive interference or financial intrusion from the heavy hand of the State education bureaucracy.

The second program is one close to my heart, one that I have been working on for years, the Noyce scholarships, named for Robert Noyce, an inventor of the transistor and a founder of Intel. Under this program, top math and science majors will be encouraged to teach by awarding of scholarships with a service requirement and by providing them with extra training and support. The single most important step we can take to improve math and science education is to get bright, well-trained

students with confidence in their material into the classroom. This program is designed to do just that.

I want to thank the gentleman from New York (Mr. WALSH) for providing appropriations to get the program started. Congress first passed a version of this program over a decade ago, and it is long past time for the National Science Foundation to get started on it.

I should also point out that this bill has broad support from academic and business groups, and a bipartisan counterpart to it has recently been introduced in the other body.

Mr. Speaker, in closing let me just say that this is a good bill that reflects the contributions of many Members, a bill that will make a real difference to the students and teachers in our elementary and secondary schools and, through them, a big difference to all of us. In passing this bill, we will be heeding the sound admonition of H.G. Wells: "Civilization becomes more and more a race between education and catastrophe."

I urge its passage.

Mr. Speaker, I reserve the balance of my time.

Mr. HALL of Texas. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I rise, of course, in support of this act. It is a very important piece of legislation that will strengthen science and mathematics education in the Nation's schools. It includes a lot of provisions designed to bring more support to K–12 science and math teachers, more support to their students and, of course, to the entire schools.

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The overall goal is to help our children become more proficient in science and math, to get them more interested in it, and I am confident that the programs authorized by this bill will do exactly that.

Earlier this year, I chaired a forum in Sherman, Texas, which is in my district. It focused on the issue of the skills needed for high technology workforce. The forum highlighted the importance of providing high quality science and math education in elementary and secondary schools in order to prepare the students for the technological challenges of the new economy. The program initiatives authorized by H.R. 1858 are consistent with the recommendations I received during this conference. It was a 3-day conference in Northeast Texas, well attended.

I congratulate the gentleman from New York (Mr. BOEHLERT), the chairman of the Committee on Science, for placing science education high on the committee's agenda this year, and for taking the necessary steps to move this legislation forward for consideration by the House today. We worked

together, and I think that is the reason we are here today. We had very few disagreements. The disagreements we had, we worked them out, worked them out through our committee staffs, who worked very hard.

H.R. 1858 is the result of a very bipartisan thrust and it incorporates several programs and activities from a comprehensive education bill, H.R. 1693, which I introduced earlier this year. It also includes specific provisions Democratic Members of the Committee on Science have separately developed to improve K–12 science and math education.

I would particularly like to highlight the programs incorporated from H.R. 1693 that explore ways to effectively use educational technology in the classroom.

The approach is to identify promising techniques and approaches, then test them in a variety of classroom settings, and then document results in terms of student performance. This knowledge will enable schools to select the technology-based material and approaches that actually work and are worth the substantial investment needed to implement them.

The educational technology activities authorized by this bill respond to the recommendations of both the Web-Based Education Commission in its December 2000 report to the President and the Congress, and the President's Information Technology Advisory Committee in its February 2001 report, "Using Information Technology to Transform the Way We Learn."

Also, H.R. 1858 incorporates programs from H.R. 1693 to encourage and support women and minorities in pursuing careers in science and in engineering and to get them interested in it.

Mr. Speaker, I want to acknowledge the collegial process through which this bipartisan legislation has been developed. I want to congratulate the gentleman from Michigan (Mr. SMITH), the Subcommittee on Research chairman, and the ranking member, the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), for their efforts to develop this bill.

Finally, I want to thank the gentleman from New York (Chairman BOEHLERT), the chairman of the Committee on Science, for his willingness to work cooperatively with the Democratic Members to develop this legislation. We have had a lot of meetings, we have met here on the floor, and we have discussed it at times when he was generous with his time. As chairman, he has many things to do, but he has given us the time we asked for. We have a good chairman, and I am thankful for him.

I am proud we were able to work on this legislation with minimal debate over the fundamental objections and objectives. As a result, we produced a bill that is a win-win for teachers, it is

a win-win for students, and the industries that rely on math, science and technological expertise, it is a win-win for them.

Mr. Speaker, I commend this measure to my colleagues and ask for their support for its passage by the House.

Mr. Speaker, I reserve the balance of my time.

Mr. BOEHLERT. Mr. Speaker, I yield 4 minutes to the distinguished gentleman from Michigan (Mr. SMITH), the chairman of the Subcommittee on Research. He has had such an integral part to play in the development of this very significant legislation.

Mr. SMITH of Michigan. First of all, Mr. Speaker, I want to thank the chairman and certainly the gentleman from Texas, the ranking member on our subcommittee. It is a goal in the Committee on Science to work together, and I think that kind of an effort is good, because it moves us ahead to get some of this legislation passed and to the president.

Mr. Speaker, I rise in support of H.R. 1858. It is a bill that was favorably reported out of the Committee on Science Subcommittee on Research last month and a couple weeks later passed out of the full committee.

In opening that markup, I noted that the bill addresses an issue that is at the heart of our national security and our national prosperity. The math and science education we provide our kids is so important. We are in the midst of a technological revolution that has driven our economy, improved our productivity and helped us live longer and healthier lives. But it is a revolution fueled, in large part, by our investment and our past investment in research and development. But this research and development is, in turn, dependent on how we inspire our kids to take up math and science education and the quality of education and teachers. We furnish that inspiration by giving them a quality education in math and science. This bill takes important steps to manage that investment.

I am also pleased, as I mentioned, that the bill before us today represents the work and input from many members, from the Democrats and Republicans of the Subcommittee on Research and the full Committee on Science. Certainly the gentleman from New York (Mr. BOEHLERT), in moving this bill ahead, I thank him for his willingness to include provisions important to me and other members of the subcommittee in this particular bill, particularly for his inclusion of language establishing the Centers on Research on Learning and Education and Education Research Teacher Fellowships that originally appeared in my education research legislation, H.R. 2050.

These provisions address the need to bridge the gap between the basic research on how our children learn and

actual classroom practice, a gap we have explored in several hearings before this subcommittee. I would like to tell my colleagues that witnesses at those hearings testified that the fire that started in these kids to make them sometimes not afraid of math and science, but, more importantly, to make them pursue that math and science education, is so important. You can have great teachers, but if the kids are not interested in math and science and do not take it up, it does not happen.

Here is an interesting result of the questions that I asked our witnesses. I said if education is more the lighting of a fire than filling of a container, when is that fire lit for math and science? Two of the witnesses said probably between kindergarten and the third grade. If those kids do not get a little bit of that fire, that lighting up of interest between kindergarten and third grade, then they are probably not going to pursue math and science.

But it is important, the work that this committee has done. I would also mention the gentleman from Michigan (Mr. EHLERS) has been a catalyst for legislation helping assure quality teachers that will ultimately make a big difference whether those kids have a good math and science education.

You know, as First Lady Laura Bush said last week at a speech at the start of a 2-day summit of leading education researchers, "The topic of our children rises above partisan politics and turf battle. Teachers, especially pre-kindergarten and early education teachers, need to have the latest information on the science of learning in order to teach effectively."

Mr. Speaker, I am pleased to offer my support to this bill today, and once again thank the gentleman from Texas (Chairman BOEHLERT) and the ranking member, the gentleman from Texas (Mr. HALL), as well as the ranking member of the Subcommittee on Research, the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), for all of their efforts.

My suggestion today is that with the technology that is evolving, every student in every class regardless of the career they pursue, needs to take a little more math and science. A basic in math and sciences will be instrumental in their ability to communicate, to produce and in their ability to achieve success in the developing new world of technology.

Mr. HALL of Texas. Mr. Speaker, I yield 3 minutes to the gentlewoman from California (Ms. WOOLSEY), who is an integral part of this legislation and a Member who pursued it and has worked well with the opposition and me as the ranking member.

Ms. WOOLSEY. Mr. Speaker, I rise in support of H.R. 1858, the National Mathematics and Science Partnerships Act. I would like to commend the gen-

tleman from New York (Mr. BOEHLERT), the gentleman from Texas (Mr. HALL), the gentleman from Michigan (Mr. SMITH), and the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) for their very successful effort to bring this bill together in a true bipartisan manner. That is what makes serving on the Committee on Science such a joy. I thank you both very much.

This bill is a clear blueprint to further science, math, and technology education in our country. As a member of both the House Committee on Education and Workforce and Committee on Science, I am very aware of the challenges that our students and schools face in educating for a highly technical workforce. We know that having a well-educated workforce in the math and science fields is a major priority of employers across this Nation, especially in the high-tech arena.

Mr. Speaker, it is quite clear that the United States will not have a technically competent workforce until females, the majority of our students, study science, math, and engineering or technology in the same numbers as their male counterparts. That is why I am glad that we were able to work together on this committee to ensure that this bill addresses the important issue of girls and young women and technology.

The science enrichment programs for girls included in this bill, which is based on a bill I authored, Go Girl, H.R. 1536, will authorize NSF to fund programs in elementary and secondary schools that encourage the ongoing interests of girls in science, math, engineering, and technology. The bill, H.R. 1858, will provide a way for girls to gain both the practical advice and the vision they need to pursue undergraduate and graduate studies or careers in these technical fields.

It will help create a bold new workforce of energized young women, meaning that employers, public and private, will be able to hire the workers they need right here in America, because the 50 percent of our population that now is turning away from careers in science, math, engineering, and technology will actually seek and receive the education they need to fill those jobs, jobs that pay a very good salary, by the way.

This important provision is one of the reasons I encourage my colleagues on both sides of the aisle to join me in supporting this bill.

Mr. BOEHLERT. Mr. Speaker, I yield 4 minutes to the gentlewoman from Maryland (Mrs. MORELLA), who is an educator and a lawmaker and a consummate professional in both pursuits.

Mrs. MORELLA. Mr. Speaker, I rise in strong support of this bill, H.R. 1858.

Mr. Speaker, I obviously want to thank the gentleman from New York (Mr. BOEHLERT), the chairman of the

Committee on Science for his commitment, for his leadership, and for introducing this legislation and for bringing it to the floor so expeditiously. Also I want to thank the ranking member, the gentleman from Texas (Mr. HALL). I want to thank the gentleman from Michigan (Mr. SMITH), who chairs the appropriate subcommittee of the Committee on Science, and the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), the ranking member. This is a collaborative effort, and this is a committee where people on both sides of the aisle work together to help our country, and in this case to help our young people who are going to be our future leaders.

Many challenges face us in our Nation's educational effort, particularly in science and math. Despite the dedication and hard work of many committed individuals, our children continue to perform poorly on standardized tests. Lackluster performances on the most recent TIMSS, TIMSS-Repeated and NAEP tests, those are the Third International Math and Science Study, Third International Math and Science Study Repeated, and the National Assessment of Educational Progress, these reports are a case in point.

While there is a broad range of scores throughout the Nation, even our strongest districts lag behind international averages. For example, while I was very proud to learn that my district, Montgomery County, Maryland, soundly beat the national average in both math and science, we still lagged behind the Eastern and European powerhouses. What is worse, data comparing the fourth, eighth, and twelfth grades suggest that our students grow further behind the longer they are in school. This situation is unacceptable.

□ 1515

We need to recruit better teachers and provide additional training to the ones that we have. Teachers, like most professionals, need opportunities for development. Education is not a static discipline, and our efforts and approaches need to be upgraded to take into account our changing times.

We also need additional research on how to take advantage of the technology revolution in the classroom. This bill provides grants for the development of current teachers, scholarships for math and science majors who go into teaching, and research dollars for innovative methods. These incentives are desperately needed.

In addition, we need to provide opportunities for traditionally under-represented groups such as women, minorities, and persons with disabilities so that they can excel in math and science-related fields. The Bureau of Labor Statistics tells us that careers in science, engineering and technology are still booming and, over the next

few years, we will need to fill over 5 million new jobs in high-tech specialty occupations. To meet this demand, we will need participation from all sectors of our work force.

The Commission that was established by my legislation on the advancement of women minorities in science, engineering and technology found that these groups greatly askew technical occupations. They are severely under-represented in scientific disciplines, and while they represent the fastest growing segment of the work force, they are not going into technical careers at an appreciable rate. If we are going to meet the future demand for a highly skilled work force, we must find ways to tap into these groups.

In particular, these outreach efforts should include a consortium of community colleges in their university-industry partnerships. Community colleges do not traditionally do well in competition with 4-year institutions for establishing pilot programs and research efforts. However, nearly 45 percent of all U.S. undergraduates and a majority of women minorities and persons with disabilities attend these institutions and they must be included in our efforts if we are to reach out to those under-represented groups. Provisions for such a community college consortium, which I introduced as an amendment to H.R. 1858 and which was supported by the Committee on Science, are included in the bill's report language. Our children deserve the best in education, and this legislation offers a common sense approach to improve science and math education. It deserves our support.

Mr. HALL of Texas. Mr. Speaker, I yield 5 minutes to the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), the ranking member of the Subcommittee on Research, who is responsible for a lot of this bill, but she especially pushed the section of the bill that promotes the Partnership for Math and Science for Economically Disadvantaged Schools.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Speaker, I am pleased to add my support for the National Mathematics and Science Partnership Act. This is significant legislation designed to improve mathematics and science education in elementary and secondary schools throughout the Nation.

I congratulate the gentleman from New York (Mr. BOEHLERT), the chairman of the Committee on Science, for his efforts to develop the bill and for his cooperative approach in working with Members on both sides of the aisle all during the process. I also want to acknowledge the hard work of the gentleman from Texas (Mr. HALL), my ranking member and colleague, who introduced comprehensive science education earlier this year. Many provisions of his bill, Science Education for the 21st Century Act, H.R. 1693, are incorporated in the bill before us today.

Over the past two Congresses, the Committee on Science has conducted an extensive series of hearings that have examined all aspects of K-12 science and math education. I believe that H.R. 1858, as reported from the Committee on Science, is guided and well-supported by the testimony that we have received. It is now time to move it forward toward final passage.

The Democratic members of the Committee on Science have separately developed several legislative proposals on science and math education this year. In addition, they have worked with the gentleman from Texas (Mr. HALL), our ranking member, in developing H.R. 1693. I am pleased that many of the programs and activities set out in these bills are now part of H.R. 1858.

I want to commend the bipartisan process through which the legislation has been developed. I believe we all approached this matter with an appreciation of the importance of finding creative and effective ways to address the serious deficiencies that now exist in K-12 science and math education. I believe we may all take pride in the legislation that has emerged from this collegial process.

Mr. Speaker, H.R. 1858 comprises a range of proposals from Members on both sides of the aisle on ways to improve teacher training, to attract more talented students to careers in science and math, to encourage more students to go into education, and to develop more effective educational materials and teaching practices to improve student learning. It also authorizes new research programs to improve the scientific base for teaching techniques and education materials, as well as to determine the effectiveness of new educational approaches of improving student performance.

I am particularly pleased that the bill incorporates the Math and Science Proficiency Partnership Act, H.R. 1660, which I introduced this year. This is similar to bills that I have introduced in the past two Congresses.

My legislation is a targeted measure. It seeks to bring schools with large populations of economically disadvantaged students together in partnership with businesses to improve math and science education and to recruit and support students in undergraduate education and science and technology fields.

The components of the partnerships will include support from the National Science Foundation to the schools for teacher training, education materials, and equipment. Industry will provide support for college scholarships for promising students, job site mentoring and internship programs, and donations of computer software and hardware. The overall effect of the partnerships will be to encourage and support

promising students from under-represented groups in pursuing careers in science and engineering.

Mr. Speaker, again, I want to commend the gentleman from New York (Mr. BOEHLERT) for his willingness to work cooperatively with the Democratic Members in developing H.R. 1858, and I would ask favorable consideration. I also want to thank the gentleman from Michigan (Mr. SMITH), the chairman of the Subcommittee on Research, for his contributions, and the gentleman from Michigan (Mr. EHLERS).

Mr. Speaker, I support strongly the passage of this bill.

Mr. BOEHLERT. Mr. Speaker, I am pleased to yield 3 minutes to the gentleman from Michigan (Mr. Ehlers), a distinguished scientist, distinguished educator and a distinguished lawmaker.

Mr. EHLERS. Mr. Speaker, I thank the gentleman for yielding me this time.

I will be brief, because I have a similar bill coming up shortly, and I will amplify my comments at that time.

This is an excellent bill. I strongly urge the House to pass this bill and to work diligently with the Senate to make certain that we get these programs passed into law.

One of the most important aspects of this bill is that it establishes a competitive merit-based grant program of partnerships between universities and school districts, and they are encouraged to include businesses as well, to improve K-12 math and science education. This is the centerpiece of the bill; it is something that the President recommended early on when he took office, and I am very pleased to see this take place.

In addition to that aspect, the bill will enable K-12 math and science teachers to participate in math, science, or engineering research at universities or government or industry labs. That can be a life-changing experience for a high school teacher, or even an elementary school teacher, to spend time working in a well-known lab with a well-known scientist and doing science at the edge of the envelope.

Third, this bill establishes a competitive merit-based grant program to set up four university research centers on teaching and learning. This again is ground-breaking work and something that is similar to a recommendation of the Glenn Commission last year. We have to develop better research in teaching science and mathematics as well as other subjects. Reid Lyon at the National Institutes of Health has done ground-breaking research in this, but there is much more to be done and we must involve the universities as well. This provision will go far in that direction.

Finally, this bill establishes a program to award scholarships to top

math and science majors in their junior and senior years of college with a requirement that they must teach 2 years for each year they receive a scholarship. This is a stroke of genius, because we badly need new, good science and math teachers, and this is one method which will provide some of the world's best.

Mr. Speaker, I strongly support this bill, and I encourage the House to adopt it. It is an excellent bill.

Mr. HALL of Texas. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. BOEHLERT. Mr. Speaker, I yield myself such time as I may consume.

Just let me close by acknowledging how this all came about. Well-intentioned people, Republicans and Democrats alike, guided by that dedicated cadre of staff people who worked tirelessly behind the scenes to make it all possible; they crossed committee jurisdictions with the administration and the Congress, even consulting with our friends and colleagues in the other body. Sharon Hayes and Jim Wilson deserve special commendation for their endless hours of very hard and very productive work. To the parents and the students and teachers and business people in America I say, we are here to help.

Mr. Speaker, this is a good bill, and I urge its adoption.

Mr. HOLT. Mr. Speaker, I rise in support of H.R. 1858, the National Mathematics and Science Partnerships Act and H.R. 100, the National Science Education Act.

As a scientist and former teacher, I know that success in this information age depends not just on how well we educate our children, but on how well we educate them in math and science specifically.

Yet, one of the most difficult challenges we face today is getting well-trained and qualified science and math teachers in every classroom.

We need to recruit better teachers and provide additional training to the ones we have. Teachers, like most professionals, need opportunities for continuous development. Education is not static. Our needs and the requirements of our teachers are constantly changing as we gain a better understanding of how our children learn and as we gain new technologies. Just think of how computers have changed the way we teach and learn.

Our methodologies must change as well.

I was fortunate enough to serve on the Glenn Commission, which sought ways to improve the teaching of math and science. One of the major recommendations that came out of our report, *Before It's Too Late*, was to provide for an ongoing system of professional development of our teachers. I am pleased to see that these bills will provide grants to improve the professional development of our current teachers.

Just as the Glenn Commission recommended, H.R. 1858 also addresses ways to recruit new and talented teachers into the field by providing scholarships for math and science majors who go into teaching, funds to

provide master teachers, and other initiatives to improve the quality of our math and science instructors.

I am also pleased to see that H.R. 1858 provides opportunities for traditionally under-represented groups to excel in math and science related fields. According to a report by the Congressional Commission on the advancement of Women and Minorities in Science, Engineering, and Technology Development, women, minorities, and persons with disabilities still eschew technical occupations. They are severely underrepresented in scientific disciplines and while they represent the fastest growing segment of the workforce, they are not going into technical careers at an appreciable rate. If we are to meet the future demand for a highly skilled workforce, we must find ways to tap into these groups.

This bill would also address this important issue. It contains programs and language specifically geared towards the recruitment and retention of qualified individuals from these underrepresented groups.

Yet we need to do more. If we are going to improve the recruitment and retention of our teachers, it is important we hear from the people this affects most—our teachers.

I am concerned that this bill does not do enough to include the participation of teachers. Rather than giving sole authority to the Director of NSF, to ensure teachers' voices are heard, it is important that the director work in collaboration with teachers.

I hope as this bill continues to move through Congress, we can incorporate language that will ensure our teachers' voices are heard.

Nevertheless, I support the goals of this bill and I urge my colleagues to support it.

Mr. ETHERIDGE. Mr. Speaker, I rise in strong support of H.R. 1858-legislation to improve America's standing in mathematics, science and technology education and instruction.

A solid academic foundation in math and science education is crucial for success in the 21st Century. This bill includes a major initiative to enhance science education through the National Science Foundation. H.R. 1858 authorizes \$200 million for the National Science Foundation (NSF) to establish partnerships between institutions of learning and local or state school systems to improve instruction and learning of elementary and secondary school science.

As the former Superintendent of Schools in my home state of North Carolina, I have worked for many years to improve science and math education in our schools. This bill also includes the measure that I proposed for the better preparation of K-12 teachers in science. We need better math and science instruction in our K-12 classrooms. This bill will help ensure that improving math and science education remains an important national priority. Quality instruction is the key to helping students learn in these critical fields. This action will make a real difference for our children and will put America on the road towards a higher standing in the world in math and science.

There is growing recognition that the success of nearly any effort to improve the academic performance of America's students depends critically on their teachers' mastery of

subject matter and their ability to teach it. The way to lift student achievement is to ensure that we have a qualified teacher in every classroom. Therefore, if America is to improve its public schools, initiatives to improve science instruction and learning must become the first priority of education reform. I am pleased this bill takes several steps in that direction.

I urge adoption of this bill, and I hope the President will sign it into law as soon as it reaches his desk.

Mr. UDALL of Colorado. Mr. Speaker, I rise in strong support of H.R. 1858, the National Mathematics and Science Partnerships Act.

I would like to thank Science Committee Chairman BOEHLERT for working with me and my colleagues on the committee to craft this important bipartisan legislation.

I want to express particular support for Title IV in this bill. Title IV sets up the Robert Noyce Scholarship program, which would provide scholarships and programming designed to recruit and train mathematics and science teachers. I introduced a similar bill earlier this year, provisions of which have been incorporated into Title IV.

My bill, the Science Teachers Scholarships for Scientists and Engineers Act, provided for scholarships to students or professionals who have a degree in science or engineering to enable them to take the courses they need to become certified as science or math teachers.

From a series of Science Committee hearings last year about the state of science and math education, and from talking to constituents, students, and educators at home, it has become clear to me that we need to improve science and math education in this country.

In particular, I've come to understand that poor student performance in science and math has much to do with the fact that teachers often have little or no training in the disciplines they are teaching. While the importance of teacher expertise in determining student achievement is widely acknowledged, it is also the case that significant numbers of K-12 students are being taught science and math by unqualified teachers.

So I'm pleased that this bill would begin to address the shortage of qualified science and math teachers by providing an incentive for individuals with the content knowledge to try teaching as a career.

Mr. Speaker, to keep economic growth strong in the long-term, we need continued innovation. But innovation doesn't happen by itself—it requires a steady flow of scientists and engineers. That's why this legislation is so important. H.R. 1858 will help ensure we are prepared for the demands and challenges of the economy of this new century.

Mr. BOEHLERT. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore (Mr. MILLER of Florida). The question is on the motion offered by the gentleman from New York (Mr. BOEHLERT) that the House suspend the rules and pass the bill, H.R. 1858, as amended.

The question was taken; and (two-thirds having voted in favor thereof) the rules were suspended and the bill, as amended, was passed.

A motion to reconsider was laid on the table.

NATIONAL SCIENCE EDUCATION ACT

Mr. EHLERS. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 100) to establish and expand programs relating to science, mathematics, engineering, and technology education, and for other purposes, as amended.

The Clerk read as follows:

H.R. 100

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 "National Science Education Act".

SEC. 2. FINDINGS.

Congress finds the following:

(1) As concluded in the report of the Committee on Science of the House of Representatives, "Unlocking Our Future Toward a New National Science Policy", the United States must maintain and improve its preeminent position in science and technology in order to advance human understanding of the universe and all it contains, and to improve the lives, health, and freedoms of all people.

(2) It is estimated that more than half of the economic growth of the United States today results directly from research and development in science and technology. The most fundamental research is responsible for investigating our perceived universe, to extend our observations to the outer limits of what our minds and methods can achieve, and to seek answers to questions that have never been asked before. Applied research continues the process by applying the answers from basic science to the problems faced by individuals, organizations, and governments in the everyday activities that make our lives more livable. The scientific-technological sector of our economy, which has driven our recent economic boom and led the United States to the longest period of prosperity in history, is fueled by the work and discoveries of the scientific community.

(3) The effectiveness of the United States in maintaining this economic growth will be largely determined by the intellectual capital of the United States. Education is critical to developing this resource.

(4) The education program of the United States needs to provide for 3 different kinds of intellectual capital. First, it needs scientists, mathematicians, and engineers to continue the research and development that are central to the economic growth of the United States. Second, it needs technologically proficient workers who are comfortable and capable dealing with the demands of a science-based, high-technology workplace. Last, it needs scientifically literate voters and consumers to make intelligent decisions about public policy.

(5) Student performance on the recent Third International Mathematics and Science Study highlights the shortcomings of current K-12 science and mathematics education in the United States, particularly when compared to other countries. We must expect more from our Nation's educators and students if we are to build on the accomplishments of previous generations. New methods of teaching science, mathematics, engineering, and technology are required, as well as better curricula and improved training of teachers.

(6) Science is more than a collection of facts, theories, and results. It is a process of

inquiry built upon observations and data that leads to a way of knowing and explaining in logically derived concepts and theories. Mathematics is more than procedures to be memorized. It is a field that requires reasoning, understanding, and making connections in order to solve problems. Engineering is more than just designing and building. It is the process of making compromises to optimize design and assessing risks so that designs and products best solve a given problem. Technology is more than using computer applications, the Internet, and programming. Technology is the innovation, change, or modification of the natural environment, based on scientific, mathematical, and engineering principles.

(7) Students should learn science primarily by doing science. Science education ought to reflect the scientific process and be object-oriented, experiment-centered, and concept-based. Students should learn mathematics with understanding that numeric systems have intrinsic properties that can represent objects and systems in real life, and can be applied in solving problems. Engineering education should reflect the realities of real world design, and should involve hands-on projects and require students to make trade-offs based upon evidence. Students should learn technology as both a tool to solve other problems and as a process by which people adapt the natural world to suit their own purposes. Computers represent a particularly useful form of technology, enabling students and teachers to acquire data, model systems, visualize phenomena, communicate and organize information, and collaborate with others in powerful new ways. A background in the basics of information technology is essential for success in the modern workplace and the modern world.

(8) Children are naturally curious and inquisitive. To successfully tap into these innate qualities, education in science, mathematics, engineering, and technology must begin at an early age and continue throughout the entire school experience.

(9) Teachers provide the essential connection between students and the content they are learning. Prospective teachers need to be identified and recruited by presenting to them a career that is respected by their peers, is financially and intellectually rewarding, contains sufficient opportunities for advancement, and has continuing access to professional development.

(10) Teachers need to have incentives to remain in the classroom and improve their practice, and training of teachers is essential if the results are to be good. Teachers need to be knowledgeable of their content area, of their curriculum, of up-to-date research in teaching and learning, and of techniques that can be used to connect that information to their students in their classroom.

SEC. 3. DUPLICATION OF PROGRAMS.

(a) IN GENERAL.—The Director of the National Science Foundation shall review the education programs of the National Science Foundation that are in operation as of the date of enactment of this Act to determine whether any of such programs duplicate the programs authorized in this Act.

(b) IMPLEMENTATION.—(1) As programs authorized in this Act are implemented, the Director shall terminate any existing duplicative program or merge the duplicative program into a program authorized in this Act.

(2) The Director shall not establish any new program that duplicates a program that has been implemented pursuant to this Act.

(c) REPORT.—(1) The Director of the Office of Science and Technology Policy shall review the education programs of the National