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107TH CONGRESS
1ST SESSION

H. R. 1660

To develop a demonstration program through the National Science Foundation to encourage interest in the fields of mathematics, science, and information technology.

IN THE HOUSE OF REPRESENTATIVES

MAY 1, 2001

Ms. EDDIE BERNICE JOHNSON of Texas (for herself, Mr. FROST, Mr. MCGOVERN, Mrs. MEEK of Florida, Mr. SANDLIN, Mr. HASTINGS of Florida, Mr. BOUCHER, Mr. RODRIGUEZ, Mr. MEEKS of New York, Mrs. CHRISTENSEN, Mrs. JONES of Ohio, Ms. CARSON of Indiana, Ms. LEE, Mr. RANGEL, Mr. BACA, Mr. ETHERIDGE, Mr. OWENS, Mr. CUMMINGS, Ms. WOOLSEY, and Ms. KILPATRICK) introduced the following bill; which was referred to the Committee on Science, and in addition to the Committee on Education and the Workforce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To develop a demonstration program through the National Science Foundation to encourage interest in the fields of mathematics, science, and information technology.

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 ''Mathematics and Science Proficiency Partnership Act of 2001''.

SEC. 2. FINDINGS.

The Congress finds the following:

(1) Mathematics and science education is a vital link to connect today's students with the information age and to the workplace of the 21st century.

(2) Today's United States economy depends more than ever on the talents of skilled, high-tech workers.

(3) To sustain America's preeminence, we must take drastic steps to change the way we develop our workforce.

(4) 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.

(5) We must acknowledge that the effectiveness of the United States in maintaining this economic growth will be largely determined by the intellectual capital of the United States.

(6) The education of America's students is critical to developing this resource.

(7) American students consistently demonstrate average and below average performance compared to their international peers in their skills in mathematics and science.

(8) According to the 1999 edition of the National Assessment of Educational Progress, also known as the Nation's Report Card, the trends in mathematics and science are characterized by declines in the 1970's, followed by increases during the 1980's and early 1990's. However, performance has remained unchanged since the early 1990's. Several findings of the Report Card deserve mention, including the following:

(A) In 1999, the average science score for 17-year-olds was lower than the average score in 1969 for the same age group.

(B) In 1999, the average science score for 13-year-olds was similar to the average score in 1970 for the same age group.

(C) In 1999, white students had higher average mathematics scores than their black and Hispanic peers. Although the gap between white and black students narrowed since 1973, there is evidence that the gap may be widening since 1990.

(D) In 1999, males outperformed females in science at ages 13 and 17.

(E) A greater percentage of 13-year-olds in 1999 than in 1986 reported that the content of

their science class was general rather than focused on earth, physical, or life science.

(9) The National Commission on Mathematics and Science Teaching for the 21st century also finds that recent reports of the performance of our country's students from both the Third International Mathematics and Science Study (TIMSS) and the National Assessment of Educational Progress (NAEP) echo a dismal message of lackluster performance, now 3 decades old. It is time the Nation heeded it—before it is too late.

(10) In an age now driven by the relentless necessity of scientific and technological advancement, the current preparation that students in the United States receive in mathematics and science is, in a word, unacceptable.

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

(12) Now is the time to set the stage for advancement in mathematics and science proficiency.

(13) The United States must expect more from our educators and students.

(14) In order to achieve this, it is important that we show interest in economically disadvantaged students who have not been provided with opportunities that will improve their knowledge of mathematics, science, and information technology.

(15) Many economically disadvantaged students in urban and rural America share a common need to receive a quality education, but often their schools lack the needed resources to prepare them for the 21st century global community.

(16) The schools and businesses serving these communities are strategically positioned to form a unique partnership with urban and rural students that will increase their mathematics, science, and information technology proficiency for the benefit of the Nation.

(17) If our Nation continues failing to prepare citizens from all population groups for participation in the new, technology-driven economy, our Nation will risk losing its economic and intellectual preeminence.

(18) America's students must improve their performance in mathematics and science if they are to succeed in today's world and if the United States

is to stay competitive in an integrated global economy.

(19) It is clear that the most direct route to improving mathematics and science achievement for all students is better mathematics and science teaching.

SEC. 3. DEMONSTRATION PROGRAM AUTHORIZED.

(a) GENERAL AUTHORITY.—

(1) IN GENERAL.—

(A) GRANT PROGRAM.—The Director shall establish a demonstration program under which the Director awards grants in accordance with this Act to eligible local educational agencies.

(B) USES OF FUNDS.—A local educational agency that receives a grant under this Act may use such grant funds to develop a program that builds or expands mathematics, science, and information technology curricula, to purchase equipment necessary to establish such program, and to provide professional development to enhance teacher quality in those subject areas.

(2) PROGRAM REQUIREMENTS.—The program described in paragraph (1) shall—

(A) train teachers specifically in information technology, mathematics, and science; and

(B) provide students with a rich standards-based course of study in mathematics, science, and information technology.

(b) ELIGIBLE LOCAL EDUCATIONAL AGENCY.—A local educational agency is eligible to receive a grant under this Act 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 (c); and

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

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

(1) the donation of 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 scholarship funds for selected students to continue their study of mathematics, science, and information technology.

(d) APPLICATION.—

(1) IN GENERAL.—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) GUIDELINES.—

(A) REQUIREMENTS.—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 (a)(1)(B) and (2);

(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 described in subsection (c).

(B) GUIDELINE PUBLICATION.—The Director shall issue and publish such guidelines

not later than 6 months after the date of the enactment of this Act.

(3) SELECTION.—The Director shall select a local educational agency to receive an award under this section in accordance with subsection (e) and on the basis of merit to be determined after conducting a comprehensive review.

(e) PRIORITY.—The Director shall give special priority in awarding grants under this Act 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 (c); and

(2) demonstrate the greatest economic need.

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

SEC. 4. STUDY AND REPORT.

(a) STUDY.—The Director shall initiate an evaluative study of the effectiveness of the activities carried out under this Act in improving student performance in mathematics, science, and information technology at the precollege level and in stimulating student interest in pursuing undergraduate studies in these fields.

(b) REPORT.—The Director 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 receiving assistance under this Act who graduate from an institution of higher education with a major in mathematics, science, or information technology, and the number of students receiving assistance under this Act who find employment in such fields.

SEC. 5. DEFINITIONS.

For purposes of this Act—

(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 ''Director'' means the Director of the National Science Foundation;

(3) the term ''eligible student'' means a student enrolled in the 12th grade who—

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

(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;

(4) the term ''institution of higher education'' has the same meaning given such term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001); and

(5) the term ''local educational agency'' has the same meaning given such term in section 14101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 8801).

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the National Science Foundation to carry out this Act

$5,000,000 for each of the fiscal years 2002 through 2006.

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