I

110TH CONGRESS
1ST SESSION

H. R. 524

To establish a laboratory science pilot program at the National Science Foundation.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 17, 2007

Mr. HINOJOSA (for himself, Mr. GORDON of Tennessee, Ms. EDDIE BERNICE JOHNSON of Texas, and Mr. BACA) introduced the following bill; which was referred to the Committee on Science and Technology

---

A BILL

To establish a laboratory science pilot program at the National Science Foundation.

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

SECTION 1. FINDINGS.

The Congress finds the following:

(1) To remain competitive in science and technology in the global economy, the United States must increase the number of students graduating from high school prepared to pursue postsecondary education in science, technology, engineering, and mathematics.

(2) There is broad agreement in the scientific community that learning science requires direct involvement by students in scientific inquiry and that laboratory experience is so integral to the nature of science that it must be included in every science program for every science student.

(3) In America's Lab Report, the National Research Council concluded that the current quality of laboratory experiences is poor for most students and that educators and researchers do not agree on how to define high school science laboratories or on their purpose, hampering the accumulation of research on how to improve labs.

(4) The National Research Council found that schools with higher concentrations of non-Asian minorities and schools with higher concentrations of poor students are less likely to have adequate laboratory facilities than other schools.

(5) The Government Accountability Office reported that 49.1 percent of schools where the minority student population is greater than 50.5 percent reported not meeting functional requirements for laboratory science well or at all.

(6) 40 percent of those college students who left the science fields reported some problems related to

high school science preparation, including lack of laboratory experience and no introduction to theoretical or to analytical modes of thought.

(7) It is in the national interest for the Federal Government to invest in research and demonstration projects to improve the teaching of laboratory science in the Nation's high schools.

SEC. 2. GRANT PROGRAM.

Section 8(8) of the National Science Foundation Authorization Act of 2002 is amended—

(1) by redesignating subparagraphs (A) through (F) as clauses (i) through (vi), respectively;

(2) by inserting ''(A)'' before ''A program of competitive''; and

(3) by inserting at the end the following new subparagraph:

''(B) In accordance with subparagraph (A)(v), the Director shall establish a pilot program designated as 'Partnerships for Access to Laboratory Science' to award grants to partnerships to improve laboratories and provide instrumentation as part of a comprehensive program to enhance the quality of mathematics, science, engineering, and technology instruction at the secondary school level. Grants under this subparagraph may be used for—

"(i) purchase, rental, or leasing of equipment, instrumentation, and other scientific educational materials;

"(ii) maintenance, renovation, and improvement of laboratory facilities;

"(iii) professional development and training for teachers;

"(iv) development of instructional programs designed to integrate the laboratory experience with classroom instruction and to be consistent with State mathematics and science academic achievement standards;

"(v) training in laboratory safety for school personnel;

"(vi) design and implementation of hands-on laboratory experiences to encourage the interest of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a or 1885b) in mathematics, science, engineering, and technology and help prepare such individuals to pursue postsecondary studies in these fields; and

"(vii) assessment of the activities funded under this subparagraph.

''(C) Grants awarded under subparagraph (B) shall be to a partnership that—

''(i) includes an institution of higher education or a community college;

''(ii) includes a high-need local educational agency;

''(iii) includes a business or eligible nonprofit organization; and

''(iv) may include a State educational agency, other public agency, National Laboratory, or community-based organization.

''(D) The Federal share of the cost of activities carried out using amounts from a grant under subparagraph (B) shall not exceed 50 percent.''.

SEC. 3. REPORT.

The Director of the National Science Foundation shall evaluate the effectiveness of activities carried out under the pilot projects funded by the grant program established pursuant to the amendment made by section 1 in improving student performance in mathematics, science, engineering, and technology. A report documenting the results of that evaluation shall be submitted to the Committee on Science and Technology of the House of Representatives and the Committees on Commerce, Science, and Transportation and on Health, Education,

Labor, and Pensions of the Senate not later than 5 years after the date of enactment of this Act. The report shall identify best practices and materials developed and demonstrated by grant awardees.

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the National Science Foundation to carry out this Act and the amendments made by this Act $5,000,000 for fiscal year 2008, and such sums as may be necessary for each of the 3 succeeding fiscal years.

○