I

107TH CONGRESS
2D SESSION

H. R. 4680

To authorize appropriations for the Advanced Technological Education Program, to amend the Scientific and Advanced-Technology Act of 1992 to further strengthen science, mathematics, and technology education at the Nation's associate-degree-granting colleges, to establish an advisory committee to help guide implementation of the Advanced Technological Education Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 8, 2002

Mr. BAIRD (for himself and Mr. PRICE of North Carolina) 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

---

A BILL

To authorize appropriations for the Advanced Technological Education Program, to amend the Scientific and Advanced-Technology Act of 1992 to further strengthen science, mathematics, and technology education at the Nation's associate-degree-granting colleges, to establish an advisory committee to help guide implementation of the Advanced Technological Education Program, and for other purposes.

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 ''Science Undergraduate Community College Education Enhancement Development Act''.

SEC. 2. FINDINGS.

The Congress makes the following findings:

(1) Providing a trained workforce needed to sustain the Nation's post-industrial economy will require strengthening undergraduate education in science, mathematics, and technology at associate-degree-granting colleges.

(2) According to the American Association of Community Colleges, nearly half of all United States undergraduate college students are enrolled in associate-degree-granting colleges.

(3) The National Science Foundation has determined that as many as 40 percent of the Nation's science and mathematics teachers have taken courses at associate-degree-granting colleges, with an even higher percentage in some States.

(4) Associate-degree-granting colleges educate the vast majority of the three to five technicians that support each engineer, scientist, and medical doctor across the Nation.

(5) Millions of students take core mathematics and science courses at associate-degree-granting col-

leges to lay the groundwork for further studies. These core courses may be the most important curricular component at these colleges because they are required of all associate degree and transfer students, including future teachers.

(6) The Advanced Technological Education Program administered by the National Science Foundation has been effective in improving advanced-technology education at associate-degree-granting colleges and should be expanded, including through activities to improve core education programs in science, mathematics, and technology.

SEC. 3. DEFINITIONS.

In this Act:

(1) ASSOCIATE-DEGREE-GRANTING COLLEGE.—The term ''associate-degree-granting college'' has the meaning given that term in section 3(g)(2) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(g)(2)).

(2) DIRECTOR.—The term ''Director'' means the Director of the Foundation.

(3) FOUNDATION.—The term ''Foundation'' means the National Science Foundation.

(4) PROGRAM.—The term ''Program'' means the Advanced Technological Education Program of the Foundation.

SEC. 4. CORE SCIENCE AND MATHEMATICS COURSES.

Section 3(a) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)) is amended—

(1) by inserting '', and to improve the quality of their core education courses in science and mathematics'' after ''education in advanced-technology fields'';

(2) in paragraph (1) by inserting ''and in core science and mathematics courses'' after ''advanced-technology fields''; and

(3) in paragraph (2) by striking ''in advanced-technology fields'' and inserting ''who provide instruction in science, mathematics, and advanced-technology fields''.

SEC. 5. ARTICULATION PARTNERSHIPS.

Section 3(c)(1)(B) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(c)(1)(B)) is amended—

(1) by striking ''and'' at the end of clause (i);

(2) by striking the period at the end of clause (ii) and inserting a semicolon; and

(3) by adding after clause (ii) the following new clauses:

"(iii) provide students with research experiences at bachelor-degree-granting institutions participating in the partnership, including stipend support for students participating in summer programs; and

"(iv) provide faculty mentors for students participating in activities under clause (iii), including summer salary support for faculty mentors.".

SEC. 6. ADVANCED TECHNOLOGICAL EDUCATION ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Director shall establish an advisory committee on science, mathematics, and technology education at community colleges consisting of non-Federal members, including representatives from academia and industry, who are qualified to provide the Director with advice on and assessments of the Program.

(b) DUTIES.—The advisory committee established under subsection (a) shall review, and provide the Director with an assessment of, activities carried out under the Program, including—

(1) conformity of the Program to the requirements of the Scientific and Advanced-Technology Act of 1992;

(2) the effectiveness of activities supported under the Program in strengthening the scientific and technical education and training capabilities of community colleges;

(3) the effectiveness of the Foundation and institutions receiving awards under the Program in disseminating information to other associate-degree-granting colleges about activities carried out under the Program and about model curricula and teaching methods developed under the Program;

(4) the balance of resources allocated under the Program for support of national centers of excellence, individual institution grants, and articulation partnerships; and

(5) other issues identified by the Director.

The advisory committee shall make recommendations to the Director for improvements to the Program based on its reviews and assessments.

(c) ADVISORY COMMITTEE REPORTS.—The advisory committee established under subsection (a) shall report annually to the Director and to Congress on the findings

and recommendations resulting from the reviews and assessments conducted in accordance with subsection (b).

SEC. 7. NATIONAL SCIENCE FOUNDATION REPORT.

Within 6 months after the date of the enactment of this Act, the Director shall transmit a report to Congress on—

(1) efforts by the Foundation and awardees under the Program to disseminate information about the results of projects;

(2) the effectiveness of national centers of scientific and technical education established under section 3(b) of the Scientific and Advanced-Technology Act of 1992 in serving as national and regional clearinghouses of information and models for best practices in undergraduate science, mathematics, and technology education; and

(3) efforts to satisfy the requirement of section 3(f)(4) of the Scientific and Advanced-Technology Act of 1992.

SEC. 8. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2003.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $50,000,000 for fiscal year 2003 for the Program.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $5,000,000 shall be made available for activities to improve core science and mathematics education in accordance with section 3(a) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)), as amended by section 4 of this Act;

(B) $3,000,000 shall be made available for acquisition of instrumentation in accordance with section 3(a)(4) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)(4)); and

(C) $750,000 shall be made available for support for research experiences for undergraduate students in accordance with section 3(c)(1)(B) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(c)(1)(B)), as amended by section 5 of this Act.

(b) FISCAL YEAR 2004.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $55,000,000 for fiscal year 2004 for the Program.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $5,000,000 shall be made available for activities to improve core science and mathematics education in accordance with section 3(a) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)), as amended by section 4 of this Act;

(B) $3,500,000 shall be made available for acquisition of instrumentation in accordance with section 3(a)(4) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)(4)); and

(C) $750,000 shall be made available for support for research experiences for undergraduate students in accordance with section 3(c)(1)(B) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(c)(1)(B)), as amended by section 5 of this Act.

(c) FISCAL YEAR 2005.—

(1) IN GENERAL.—There are authorized to be appropriated to the Foundation $60,500,000 for fiscal year 2005 for the Program.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $5,000,000 shall be made available for activities to improve core science and mathe-

matics education in accordance with section 3(a) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)), as amended by section 4 of this Act;

(B) $4,000,000 shall be made available for acquisition of instrumentation in accordance with section 3(a)(4) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(a)(4)); and

(C) $750,000 shall be made available for support for research experiences for undergraduate students in accordance with section 3(c)(1)(B) of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i(c)(1)(B)), as amended by section 5 of this Act.

○