

109TH CONGRESS
2^D SESSION

H. R. 5871

To establish the Math and Science Teaching Corps.

IN THE HOUSE OF REPRESENTATIVES

JULY 24, 2006

Mr. SAXTON introduced the following bill; which was referred to the
Committee on Education and the Workforce

A BILL

To establish the Math and Science Teaching Corps.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Mathematics and
5 Science Teaching Corps Act of 2006”.

6 **SEC. 2. FINDINGS AND PURPOSES.**

7 (a) FINDINGS.—Congress finds the following:

8 (1) Mathematics and science are the bases for
9 almost every technical competence in the modern
10 marketplace, including fields as diverse as computer
11 programming, physics, engineering, manufacturing,
12 and oil exploration.

1 (2) Cultivating a workforce with strong mathe-
2 matics and science skills is necessary both to keep
3 the United States competitive in a global economy
4 and for its national security. China's long-term
5 growth rate has surpassed that of the United States
6 in the time since Chinese economic reform focused
7 on the development of science and technology.

8 (3) Secondary school students in the United
9 States rank near the bottom when compared to their
10 counterparts in other developed countries. Of the
11 Organization for Economic Cooperation and Devel-
12 opment nations participating in the 2003 Program
13 for International Student Assessment, the United
14 States ranked 24th of 29 in mathematics and 23rd
15 of 29 in science, while Korea and Japan ranked in
16 the top 5 in both categories.

17 (4) Research shows that teacher quality is the
18 most important factor in determining student
19 achievement, especially in the technical fields of
20 mathematics and science. Researchers from Penn
21 State, the Urban Institute, and the RAND Corpora-
22 tion have all found higher student achievement in
23 secondary school for those students whose teachers
24 had taken more coursework related to their subject
25 area.

1 (5) According to the Center for Teaching and
2 Policy, 38 percent of secondary school mathematics
3 classes, 28 percent of general science classes, 45 per-
4 cent of life science classes, and 60 percent of phys-
5 ical science classes are taught by individuals lacking
6 a major or a minor in such discipline.

7 (6) College graduates with strong mathematics
8 or science backgrounds have many career opportuni-
9 ties that are more financially attractive than teach-
10 ing. According to the National Science Foundation,
11 recent college graduates in 2001 were offered be-
12 tween \$10,000 and \$20,000 more for their first year
13 in a technical occupation other than teaching.

14 (7) Sophisticated mathematics and science
15 teachers are needed in all classrooms across the Na-
16 tion in order to raise student achievement and ulti-
17 mately help the United States maintain its competi-
18 tiveness in the global economy.

19 (8) Individuals who are strong in mathematics
20 and science need financial incentives, peer men-
21 toring, and professional development for proper re-
22 cruitment and retainment in the field of teaching.

23 (b) PURPOSES.—The purposes of this Act are to—

24 (1) recruit up to 8,000 new, outstanding mathe-
25 matics and science public secondary school teachers

1 each year who might otherwise begin different ca-
2 reers; and

3 (2) reward up to 8,000 existing and out-
4 standing mathematics and science public secondary
5 school teachers each year who might otherwise leave
6 the teaching profession.

7 **SEC. 3. DEFINITIONS.**

8 In this Act:

9 (1) **DIRECTOR.**—The term “Director” means
10 the Director of the Math and Science Teaching
11 Corps.

12 (2) **HARD-TO-STAFF SCHOOL.**—The term
13 “hard-to-staff school” means a public secondary
14 school that—

15 (A) is in a local educational agency in
16 which at least 45 percent of the students en-
17 rolled in the schools in such agency are eligible
18 for a free or reduced-price lunch under the
19 Richard B. Russell National School Lunch Act;
20 and

21 (B) is determined by the local educational
22 agency (and confirmed by the Director), to have
23 the greatest difficulty in recruiting and retain-
24 ing highly qualified teachers (as such term is
25 defined in section 9101 of the Elementary and

1 Secondary Education Act of 1965), compared
2 to all of the schools in such agency.

3 (3) PARTICIPATING LOCAL EDUCATIONAL AGEN-
4 CY.—The term “participating local educational agen-
5 cy” means a local educational agency that has been
6 certified by the Director as offering an induction
7 program for individuals receiving fellowships under
8 this Act that meets adequate standards, including—

9 (A) clustering Math and Science Teaching
10 Corps Fellows in individual or nearby schools;

11 (B) providing multi-year mentoring and
12 coaching;

13 (C) offering new teacher seminars on a
14 monthly basis;

15 (D) reducing the course load for such Fel-
16 lows, except that a local educational agency
17 may elect not to comply with this subparagraph
18 if such agency is obligated by contract require-
19 ments that prohibit teachers from taking a
20 smaller course load;

21 (E) allowing time for joint lesson planning
22 and other constructive collaborative activities;

23 (F) providing professional development op-
24 portunities for such Fellows and Math and

1 Science Teaching Corps Master Fellows on con-
2 tent knowledge and pedagogy; and

3 (G) facilitating relationships between Math
4 and Science Teaching Corps Fellows and Math
5 and Science Teaching Corps Master Fellows.

6 (4) PARTNER INSTITUTION.—The term “part-
7 ner institution” means an institution of higher edu-
8 cation that has been certified by the Director as
9 meeting adequate standards for—

10 (A) offering a teacher preparation program
11 that—

12 (i) is modeled on the Master of Arts
13 in Teaching program, which provides a
14 full-time, 1-year course of study leading to
15 teacher certification and a master’s degree;
16 and

17 (ii) includes pedagogical courses and a
18 minimum of 1 semester of student teach-
19 ing experience;

20 (B) offering a part-time master’s degree
21 program in mathematics or science education
22 for teachers who are certified to teach;

23 (C) offering a graduate degree program in
24 mathematics and science;

1 (D) establishing an explicit collaboration
2 between the teacher preparation and mathe-
3 matics and science departments of the institu-
4 tion to provide graduate-level mathematics and
5 science content courses that are appropriate for
6 secondary school teachers; and

7 (E) providing follow-up, classroom-based
8 support for graduates of the program including
9 professional development.

10 (5) STANDARDIZED TEST.—The term “stand-
11 ardized test” means the test required by the Direc-
12 tor of each individual who applies for a fellowship
13 under this Act that evaluates each individual’s math-
14 ematics or science subject area knowledge. The
15 science subject area tests shall include a section to
16 assess mathematics skills appropriate to each sub-
17 ject. The standardized tests shall be approved and
18 reviewed periodically by the National Academy of
19 Sciences to ensure that the tests meet rigorous
20 standards and remain appropriate for the intended
21 use, and cut-off scores shall be set at the national
22 level.

1 **SEC. 4. ESTABLISHMENT OF THE MATH AND SCIENCE**
2 **TEACHING CORPS.**

3 Title II of the Department of Education Organization
4 Act (20 U.S.C. 3411 et seq.) is amended by adding at
5 the end the following:

6 **“SEC. 221. MATH AND SCIENCE TEACHING CORPS.**

7 “(a) IN GENERAL.—There shall be in the Depart-
8 ment a Math and Science Teaching Corps to be adminis-
9 tered by the Director of the Math and Science Teaching
10 Corps in accordance with the Mathematics and Science
11 Teaching Corps Act of 2006.

12 “(b) DIRECTOR.—The Director of the Math and
13 Science Teaching Corps shall—

14 “(1) administer the Math and Science Teaching
15 Corps program established under the Mathematics
16 and Science Teaching Corps Act of 2006; and

17 “(2) report directly to the Secretary and shall
18 perform such additional functions as the Secretary
19 may prescribe.

20 “(c) PURPOSE.—The Math and Science Teaching
21 Corps is established in order to significantly improve
22 mathematics and science achievement among secondary
23 school students in the United States by ensuring that such
24 students are taught by well-prepared mathematics and
25 science teachers with superior subject area knowledge.”.

1 **SEC. 5. MATH AND SCIENCE TEACHING CORPS FELLOW-**
2 **SHIPS FOR PROSPECTIVE TEACHERS.**

3 (a) ESTABLISHMENT.—The Director shall carry out
4 a program through which the Director awards—

5 (1) Math and Science Teaching Corps Fellow-
6 ships for Prospective Teachers (referred to in this
7 part as “MSTC Fellowships”) to eligible individuals;

8 (2) grants to partner institutions to pay the tui-
9 tion and fees and overhead costs at such institutions
10 of individuals receiving MSTC Fellowships under
11 this section; and

12 (3) grants to participating local educational
13 agencies to pay the costs of the activities described
14 in subsection (e)(4).

15 (b) DEFINITION OF ELIGIBLE INDIVIDUAL.—In this
16 section, the term “eligible individual” means an individual
17 who—

18 (1) is a recent college graduate or a mid-career
19 professional outside of the teaching field; and

20 (2) possesses a strong content area knowledge,
21 including a baccalaureate (or higher) degree in
22 mathematics, science, engineering, technology, or a
23 related field.

24 (c) APPLICATION.—An individual, partner institu-
25 tion, or participating local educational agency that desires
26 to receive a MSTC Fellowship or grant, as applicable,

1 under this section shall submit an application to the Direc-
2 tor at such time, in such manner, and accompanied by
3 such information as the Director may require.

4 (d) RECRUITMENT AND SELECTION OF INDIVIDUALS
5 FOR MSTC FELLOWSHIPS.—

6 (1) RECRUITMENT.—The Director shall recruit
7 eligible individuals for the MSTC Fellowships.

8 (2) SELECTION.—The Director shall establish
9 criteria to ensure that—

10 (A) individuals who receive MSTC Fellow-
11 ships under this section possess—

12 (i) a comprehensive knowledge of the
13 subject area to be taught as evidenced by
14 performing at a satisfactory level on a
15 standardized test;

16 (ii) strong verbal and communication
17 skills; and

18 (iii) other attributes that are linked to
19 effective teaching; and

20 (B) not less than 30 percent of individuals
21 selected to receive MSTC Fellowships will teach
22 in hard-to-staff schools.

23 (e) ACTIVITIES.—

24 (1) IN GENERAL.—An individual who receives a
25 MSTC Fellowship under this section shall—

1 (A) receive pedagogical training as de-
2 scribed in paragraph (2); and

3 (B) for 4 years, within a 7-year period of
4 first receiving the Fellowship, teach mathe-
5 matics or science in a secondary school, as de-
6 scribed in paragraph (3).

7 (2) PEDAGOGICAL TRAINING.—

8 (A) IN GENERAL.—An individual who re-
9 ceives a MSTC Fellowship under this section
10 shall—

11 (i) if the individual is not certified to
12 teach—

13 (I) attend, during the first year
14 of the MSTC Fellowship, a 1-year,
15 full-time graduate education program
16 of a partner institution that receives a
17 grant under this section; and

18 (II) receive, during that 1 year, a
19 stipend that is in an amount that is
20 equal to the Graduate Research Fel-
21 lowship stipend awarded by the Na-
22 tional Science Foundation; or

23 (ii) if the individual holds appropriate
24 teacher certification credentials when
25 granted the MSTC Fellowship, then during

1 any of the 4 years of the MSTC Fellow-
2 ship—

3 (I) attend a part-time graduate
4 education program leading to a mas-
5 ter's degree in mathematics or science
6 education; or

7 (II) enroll at an institution of
8 higher education in not more than 24
9 credit hours of courses in mathe-
10 matics, science, or education.

11 (B) GRANTS TO PARTNER INSTITU-
12 TIONS.—A partner institution that receives a
13 grant under this section—

14 (i) shall use the grant funds to pay
15 the tuition and fees at such institution of
16 individuals receiving MSTC Fellowships
17 under this section; and

18 (ii) may use not more than 10 percent
19 of the grant funds for overhead costs in-
20 curred by the partner institution in admin-
21 istering the grant.

22 (3) TEACHING, PROFESSIONAL DEVELOPMENT,
23 AND MENTOR TRAINING.—An individual who re-
24 ceives a MSTC Fellowship under this section shall—

1 (A) for 4 years, teach mathematics or
2 science in a public secondary school served by
3 a participating local educational agency;

4 (B) for such 4 years, participate in induc-
5 tion and professional development programs of-
6 fered by the participating local educational
7 agency;

8 (C) perform additional duties as follows:

9 (i) for the first two years of teaching,
10 participate in 60 hours each year of addi-
11 tional high quality professional develop-
12 ment by attending approved institutes,
13 seminars, or conferences on their subject
14 matter area or on pedagogy, held on week-
15 ends or during the summer break;

16 (ii) during the third year of teaching,
17 attend 60 hours of approved mentoring
18 training during the academic year or sum-
19 mer;

20 (iii) during the fourth year of teach-
21 ing, provide 60 hours of mentoring or
22 other training/coaching for teachers in
23 their school;

24 (D) for such 4 years, receive a stipend that
25 is equal to—

1 (i) for the first year of teaching de-
2 scribed in subparagraph (A), \$11,000;

3 (ii) for the second year of teaching de-
4 scribed in subparagraph (A), \$14,000;

5 (iii) for the third year of teaching de-
6 scribed in subparagraph (A), \$17,000; and

7 (iv) for the fourth year of teaching de-
8 scribed in subparagraph (A), \$20,000; and

9 (E) if the school in which the individual is
10 teaching is determined by the Director to be a
11 hard-to-staff school, for each year of teaching
12 as described in subparagraph (A), receive a
13 bonus stipend in addition to the stipend de-
14 scribed in subparagraph (D), that is equal to
15 50 percent of the stipend described in subpara-
16 graph (D) for the appropriate year of teaching.

17 (4) GRANTS TO PARTICIPATING LOCAL EDU-
18 CATIONAL AGENCIES.—A participating local edu-
19 cational agency that receives a grant under this sec-
20 tion—

21 (A) shall use the grant funds to pay the
22 expenses associated with facilitating the induc-
23 tion and professional development services for
24 individuals receiving fellowships under this Act;
25 and

1 (B) may not reduce the salary of an indi-
2 vidual who receives a MSTC Fellowship under
3 this section and is employed in a secondary
4 school served by such agency below the salary
5 normally paid for an individual with a similar
6 background and experience solely because such
7 individual receives a stipend under paragraph
8 (3).

9 (f) REPORTS.—

10 (1) IN GENERAL.—Not later than 3 years after
11 the date of enactment of this Act, the Director shall
12 submit a report to Congress that evaluates the effec-
13 tiveness of the program under this section.

14 (2) SUBSEQUENT REPORTS.—The Director
15 shall submit an updated report every 5 years after
16 the date the first report is submitted under para-
17 graph (1).

18 (g) REPAYMENT.—In the event that an individual re-
19 ceiving a MSTC Fellowship under this section does not
20 complete the activities described in subsection (e), the Di-
21 rector shall require repayment of the stipends granted to
22 the individual under this section according to the regula-
23 tions established by the Math and Science Teaching
24 Corps, except that the Director may, in the case of the
25 death or permanent and total disability of the individual,

1 or other crisis situation, forgive such obligation to repay
2 in whole or in part.

3 (h) AUTHORIZATION OF APPROPRIATIONS.—There
4 are authorized to be appropriated to carry out this section,
5 \$137,000,000 for fiscal year 2007, \$410,000,000 for fis-
6 cal year 2008, \$683,000,000 for fiscal year 2009,
7 \$956,000,000 for fiscal year 2010, and \$1,092,000,000
8 for fiscal year 2011.

9 **SEC. 6. MATH AND SCIENCE TEACHING CORPS FELLOW-**
10 **SHIPS FOR EXPERIENCED TEACHERS.**

11 (a) ESTABLISHMENT.—The Director shall carry out
12 a program in which the Director awards Math and Science
13 Teaching Corps Fellowships for Experienced Teachers (re-
14 ferred to in this part as “MSTC Master Fellowships”) to
15 eligible individuals.

16 (b) ELIGIBLE INDIVIDUAL.—In this section, the term
17 “eligible individual” means an individual who—

18 (1) has been teaching mathematics or science in
19 a public secondary school for not less than 3 years;

20 (2) possessed certification in the field and level
21 in which the individual primarily taught during the
22 3 years preceding the year for which the determina-
23 tion is made; and

1 (3) is employed as a full-time, secondary mathe-
2 matics or science teacher in a participating local
3 educational agency.

4 (c) APPLICATIONS.—An eligible individual who de-
5 sires to receive a MSTC Master Fellowship under this sec-
6 tion shall submit an application to the Director at such
7 time, in such manner, and accompanied by such informa-
8 tion as the Director may require.

9 (d) RECRUITMENT AND SELECTION OF MSTC MAS-
10 TER FELLOWS.—

11 (1) RECRUITMENT.—The Director shall recruit
12 eligible individuals for MSTC Master Fellowships.

13 (2) SELECTION.—The Director shall establish
14 criteria to ensure that—

15 (A) individuals who receive MSTC Master
16 Fellowships under this section—

17 (i) demonstrate expertise in mathe-
18 matics or science content by taking a
19 standardized test;

20 (ii) demonstrate mastery of mathe-
21 matics or science pedagogy and have a
22 strong record of positively affecting aca-
23 demic achievement, as demonstrated by ob-
24 servations from supervisors, student data

1 (as available), or other information as de-
2 termined by the Director; and

3 (iii) demonstrate other attributes that
4 are linked to effective teaching; and

5 (B) not less than 30 percent of individuals
6 selected to receive MSTC Master Fellowships
7 will teach in hard-to-staff schools.

8 (e) ACTIVITIES.—An eligible individual who receives
9 a MSTC Master Fellowship under this section shall—

10 (1) continue to teach mathematics or science in
11 a public secondary school in a participating local
12 educational agency for not less than an additional 5
13 years during the subsequent 7 years after receiving
14 such a MSTC Master Fellowship under this section;

15 (2) serve as a leader and mentor within the in-
16 dividual's department and school;

17 (3) receive a stipend of \$20,000 for each year
18 the eligible individual continues to teach, as de-
19 scribed in paragraph (1), but for not more than 5
20 years; and

21 (4) attend lectures, seminars, or workshops on
22 content area knowledge or pedagogy provided or ap-
23 proved by the participating local educational agency
24 that employs such eligible individual; and

1 (5) if the school in which the individual is
2 teaching is determined by the Director to be a hard-
3 to-staff school, receive a bonus stipend of \$10,000,
4 in addition to the stipend described in paragraph
5 (3), for each year the eligible individual continues to
6 teach, as described in paragraph (1), but for not
7 more than 5 years.

8 (f) RENEWAL OF MSTC MASTER FELLOWSHIPS.—

9 An individual who has received a MSTC Fellowship or
10 MSTC Master Fellowships and has completed the require-
11 ments associated with such fellowship may re-apply for a
12 MSTC Master Fellowship (or apply for a MSTC Master
13 Fellowship in the case of an individual who has received
14 a MSTC Fellowship) if such individual is an eligible indi-
15 vidual under this section.

16 (g) REPAYMENT.—In the event that an individual re-
17 ceiving a MSTC Master Fellowship under this section does
18 not complete the activities described in subsection (e), the
19 Director shall require repayment of the stipends granted
20 to the individual under this section according to the regu-
21 lations established by the Math and Science Teaching
22 Corps, except that the Director may, in the case of the
23 death or permanent and total disability of the individual,
24 or other crisis situation, forgive such obligation to repay
25 in whole or in part.

1 (h) REPORTS.—

2 (1) IN GENERAL.—Not later than 3 years after
3 the date of enactment of this Act, the Director shall
4 submit a report to Congress that evaluates the effec-
5 tiveness of the program under this section.

6 (2) SUBSEQUENT REPORTS.—The Director
7 shall submit an updated report every 5 years after
8 the date the first report is submitted under para-
9 graph (1).

10 (i) AUTHORIZATION OF APPROPRIATIONS.—There
11 are authorized to be appropriated to carry out this section,
12 \$100,000,000 for fiscal year 2007, \$300,000,000 for fis-
13 cal year 2008, \$500,000,000 for fiscal year 2009,
14 \$700,000,000 for fiscal year 2010, and \$800,000,000 for
15 fiscal year 2011.

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