

113TH CONGRESS
1ST SESSION

S. 854

To improve student academic achievement in science, technology, engineering,
and mathematics subjects.

IN THE SENATE OF THE UNITED STATES

APRIL 25, 2013

Mr. MERKLEY (for himself, Mr. FRANKEN, and Mr. BEGICH) introduced the
following bill; which was read twice and referred to the Committee on
Health, Education, Labor, and Pensions

A BILL

To improve student academic achievement in science,
technology, engineering, and mathematics subjects.

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 part may be cited as the “STEM Education for
5 the Global Economy Act of 2013”.

6 **SEC. 2. STEM AMENDMENT.**

7 The Elementary and Secondary Education Act of
8 1965 (20 U.S.C. 6301 et seq.) is amended by striking part
9 B of title II and inserting the following:

1 **“PART B—STEM EDUCATION**

2 **“SEC. 2201. PURPOSE.**

3 “The purpose of this part is to improve student aca-
4 demic achievement in science, technology, engineering, and
5 mathematics subjects (referred to in this part as ‘STEM
6 subjects’) by—

7 “(1) improving instruction in such subjects in
8 preschool through grade 12;

9 “(2) improving student engagement in, and in-
10 creasing student access to, courses in such subjects;

11 “(3) improving the quality and effectiveness of
12 classroom instruction by recruiting, training, and
13 supporting highly effective teachers and providing
14 robust tools and supports for students and teachers
15 in such subjects;

16 “(4) closing student achievement gaps, and pre-
17 paring more students from groups traditionally
18 underrepresented in STEM subjects to enter and
19 succeed in postsecondary education and careers, in
20 such subjects;

21 “(5) increasing access to quality after school
22 programs; and

23 “(6) recognizing that STEM subjects are di-
24 verse subject areas and that STEM subject pro-
25 grams must expose students to content and skills in
26 a host of constantly changing and evolving STEM

1 subject content areas, as specifically identified by
2 each State or eligible entity in section 2204.

3 **“SEC. 2202. DEFINITIONS.**

4 “In this part:

5 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-
6 tity’ means—

7 “(A) a State educational agency; or

8 “(B) a State educational agency in part-
9 nership with—

10 “(i) another State educational agency;

11 or

12 “(ii) a consortium of State edu-
13 cational agencies.

14 “(2) ELIGIBLE SUBGRANTEE.—The term ‘eligi-
15 ble subgrantee’ means—

16 “(A) a high-need local educational agency;

17 “(B) an educational service agency serving
18 more than 1 high-need local educational agency;

19 or

20 “(C) a consortium of high-need local edu-
21 cational agencies.

22 “(3) OUTSIDE PARTNER.—The term ‘outside
23 partner’ means an entity that has expertise and a
24 demonstrated record of success in improving student
25 learning and engagement in the identified subjects

1 described in section 2204(b)(2), including any of the
2 following:

3 “(A) A nonprofit organization with a dem-
4 onstrated record of success in improving stu-
5 dent learning in STEM subjects, including edu-
6 cational and teacher-focused organizations, pro-
7 fessional societies, museums and after school
8 and informal learning organizations, and com-
9 munity-based and cultural organizations.

10 “(B) A business.

11 “(C) A STEM faculty or teacher training
12 department of an institution of higher edu-
13 cation.

14 “(D) An educational service agency.

15 “(E) Another appropriate entity.

16 “(4) STATE.—The term ‘State’ means—

17 “(A) any of the 50 States;

18 “(B) the District of Columbia;

19 “(C) the Bureau of Indian Education; or

20 “(D) the Commonwealth of Puerto Rico.

21 “(5) STEM EDUCATION.—The term ‘STEM
22 education’ means the subjects of science, technology,
23 engineering, and mathematics, including other aca-
24 demic subjects that build on these disciplines, such
25 as computer science, and other academic subjects

1 that a State identifies as important to the workforce
2 of the State.

3 **“SEC. 2203. GRANTS; ALLOTMENTS.**

4 “(a) RESERVATIONS.—

5 “(1) IN GENERAL.—From the amounts appro-
6 priated to carry out this part for a fiscal year, the
7 Secretary shall reserve—

8 “(A) 2 percent to carry out technical as-
9 sistance to States, including technical assist-
10 ance with implementation of programs con-
11 sistent with the purpose of this part;

12 “(B) 3 percent to the Institute of Edu-
13 cation Sciences to enable the Director of the In-
14 stitute of Education Sciences to carry out the
15 evaluation activities described in section 2207;

16 “(C) 10 percent to carry out the STEM
17 master teacher corps grant program under sec-
18 tion 2208; and

19 “(D) in any year for which grants are also
20 awarded competitively, as described in sub-
21 section (b), 5 percent for State capacity-build-
22 ing grants in accordance with paragraph (2).

23 “(2) CAPACITY-BUILDING GRANTS.—

24 “(A) IN GENERAL.—The Secretary may
25 award, on a competitive basis, 1 capacity-build-

1 ing grant to enable a State to become more
2 competitive in future grant competitions under
3 subsection (b). The Secretary may award the
4 capacity building grant to—

5 “(i) a State that does not receive (and
6 is not part of an eligible entity that re-
7 ceives) a competitive grant under sub-
8 section (b), in the case of a fiscal year for
9 which such competitive grants are award-
10 ed; or

11 “(ii) a State that does not successfully
12 apply for a formula grant under subsection
13 (c).

14 “(B) DURATION.—Grants awarded under
15 subparagraph (A) shall be for a period of 1
16 year.

17 “(b) COMPETITIVE GRANTS.—

18 “(1) IN GENERAL.—For each fiscal year for
19 which the amount appropriated to carry out this
20 part is more than \$450,000,000, the Secretary shall
21 award grants totaling the amount appropriated in
22 excess of \$450,000,000, on a competitive basis and
23 in accordance with paragraph (2), to eligible entities
24 to enable such eligible entities to carry out the ac-
25 tivities described in this part.

1 “(2) COMPETITIVE GRANT AWARDS.—The Sec-
2 retary shall annually award a competitive grant
3 under paragraph (1) to not less than 5 and not more
4 than 10 eligible entities. Each eligible entity that re-
5 ceives a grant award under this subsection shall re-
6 ceive such award in an amount that is equal to not
7 less than 3 times and not more than 4 times the
8 amount of the grant award that each State that is
9 part of the eligible entity receives under the formula
10 grant described in subsection (c).

11 “(3) DURATION.—Grants awarded under this
12 subsection shall be for a period of not more than 3
13 years.

14 “(4) RENEWAL.—

15 “(A) IN GENERAL.—If an eligible entity
16 demonstrates progress, as measured by the
17 metrics described in section 2206(a), the Sec-
18 retary may renew a grant for an additional 2-
19 year period.

20 “(B) REDUCED FUNDING.—Grant funds
21 awarded under subparagraph (A) shall be
22 awarded at a reduced amount.

23 “(c) FORMULA GRANTS.—

24 “(1) IN GENERAL.—For each fiscal year for
25 which amounts are appropriated to carry out this

1 part, the Secretary shall award grants to States to-
2 taling the lesser of \$450,000,000 or the total
3 amount appropriated to carry out this part, based
4 on the formula described in paragraph (2).

5 “(2) DISTRIBUTION OF FUNDS.—The Secretary
6 shall allot to each State—

7 “(A) an amount that bears the same rela-
8 tionship to 35 percent of the excess amount as
9 the number of individuals ages 5 through 17 in
10 the State, as determined by the Secretary on
11 the basis of the most recent satisfactory data,
12 bears to the number of those individuals in all
13 such States, as so determined; and

14 “(B) an amount that bears the same rela-
15 tionship to 65 percent of the excess amount as
16 the number of individuals ages 5 through 17
17 from families with incomes below the poverty
18 line, in the State, as determined by the Sec-
19 retary on the basis of the most recent satisfac-
20 tory data, bears to the number of those individ-
21 uals in all such States, as so determined.

22 “(3) FUNDING MINIMUM.—No State receiving
23 an allotment under this subsection may receive less
24 than one-half of 1 percent of the total amount allot-
25 ted under paragraph (1) for a fiscal year.

1 “(4) REALLOTMENT OF UNUSED FUNDS.—If a
2 State does not successfully apply for or receive an
3 allotment under this subsection for a fiscal year, the
4 Secretary shall reallocate the amount of the State’s al-
5 lotment to the remaining States in accordance with
6 this subsection.

7 **“SEC. 2204. APPLICATIONS.**

8 “(a) IN GENERAL.—Each eligible entity or State de-
9 siring a grant under this part, whether through a competi-
10 tive grant under section 2203(b) or through an allotment
11 under section 2203(c), shall submit an application to the
12 Secretary at such time, in such manner, and accompanied
13 by such information as the Secretary may require.

14 “(b) CONTENTS.—At a minimum, an application sub-
15 mitted under subsection (a) shall include the following:

16 “(1) A description of the needs identified by the
17 State or eligible entity, based on a State analysis,
18 which—

19 “(A) may include results from a pre-
20 existing analysis of STEM subject education
21 quality and outcomes in the State or States
22 served by the eligible entity;

23 “(B) shall include data for elementary
24 school and secondary school grades, as applica-

1 ble and to the extent that such data are avail-
2 able, on—

3 “(i) student achievement in science
4 and mathematics, including such data col-
5 lected in accordance with the requirements
6 of section 1111(b), and student achieve-
7 ment in technology and engineering;

8 “(ii) science, technology, engineering,
9 and mathematics teacher evaluation results
10 or ratings;

11 “(iii) student access to mathematics
12 and science courses needed to enroll in
13 credit-bearing coursework at institutions of
14 higher education in the State or States
15 served by the eligible entity;

16 “(iv) access to STEM subject courses
17 for students in preschool through grade 12
18 who—

19 “(I) are eligible to receive a free
20 or reduced priced lunch under the
21 Richard B. Russell National School
22 Lunch Act (42 U.S.C. 1751 et seq.);
23 or

24 “(II) come from families with an
25 income that is below the poverty line;

1 “(v) student achievement gaps in
2 STEM subjects;

3 “(vi) the percentage of students suc-
4 cessfully—

5 “(I) completing Advanced Place-
6 ment (AP) or International Bacca-
7 laureate (IB) courses in science, tech-
8 nology, engineering, and mathematics
9 subjects; or

10 “(II) completing rigorous post-
11 secondary education courses in STEM
12 subjects;

13 “(vii) rates of college remediation in
14 mathematics; and

15 “(viii) teacher shortages and teacher
16 distribution among local educational agen-
17 cies and schools in STEM subjects;

18 “(C) shall include a review of the work-
19 force needs in the State or States served by the
20 eligible entity in occupations and sectors that
21 require knowledge or training in STEM sub-
22 jects;

23 “(D) shall include an analysis of the qual-
24 ity of preservice preparation at all public insti-
25 tutions of higher education (including alter-

1 native pathways to teacher licensure or certifi-
2 cation) for individuals preparing to teach
3 STEM subjects in a preschool, elementary
4 school, or secondary school in the State; and

5 “(E) shall include an analysis of the imple-
6 mentation of any multi-tiered systems of sup-
7 port that have been employed in the State or
8 States served by the eligible entity to address
9 the learning needs of students in any STEM
10 subjects.

11 “(2) An identification of the specific STEM
12 subjects that the State or eligible entity will address
13 through the activities described in section 2205, con-
14 sistent with the needs identified under paragraph (1)
15 (referred to in this part as ‘identified subjects’).

16 “(3) A description, in a manner that addresses
17 any needs identified under paragraph (1), of—

18 “(A) how grant funds will be used by the
19 State or eligible entity to improve instruction in
20 identified subjects using evidence-based pro-
21 grams of instruction that are aligned with high-
22 quality standards and assessments;

23 “(B) how grant funds will be used to sup-
24 port subgrantees and other high-need local edu-
25 cational agencies in the employment of multi-

1 tiered systems of support to provide early inter-
2 vening services and to increase student achieve-
3 ment in identified subjects;

4 “(C) the procedures and criteria that the
5 State or eligible entity will use for reviewing ap-
6 plications and awarding funds to eligible sub-
7 grantees, including how the State or eligible en-
8 tity will ensure that subgrants will be provided
9 to high-need local educational agencies and
10 high-need schools;

11 “(D) how the State’s or eligible entity’s ac-
12 tivities and subgrants will be coordinated with
13 other Federal, State, and local programs and
14 activities, including career and technical edu-
15 cation programs authorized under the Carl D.
16 Perkins Career and Technical Education Act of
17 2006 (20 U.S.C. 2301 et seq.);

18 “(E) the technical assistance that the
19 State or eligible entity will provide to sub-
20 grantees to support the activities undertaken by
21 the subgrantees;

22 “(F) how the State or eligible entity will
23 evaluate the activities funded, both at the State
24 and subgrantee level, with funds provided under
25 this part, and in a manner consistent with any

1 evaluation activities carried out by the Institute
2 of Education Sciences under section 2207, or
3 the National Science Foundation;

4 “(G) how the State or eligible entity will
5 allocate funds in a manner that will provide
6 services to both elementary schools and sec-
7 ondary schools;

8 “(H) how the State or eligible entity will
9 provide targeted support to improve instruction
10 in high-need local educational agencies and
11 high-need schools;

12 “(I) how the State or eligible entity’s pro-
13 posed project will ensure an increase in access
14 for students who are traditionally underrep-
15 resented in STEM subject fields (including fe-
16 male students, minority students, students who
17 are limited English proficient, students who are
18 children with disabilities, and students from
19 low-income families) to high-quality courses and
20 other learning experiences in 1 or more of the
21 identified subjects; and

22 “(J) a description of the steps that the
23 State or eligible entity has taken to involve a
24 variety of stakeholders in the development of
25 the application and a description of how the

1 State or eligible entity will continue to involve
2 stakeholders in any education reform efforts re-
3 lated to science, technology, engineering, and
4 mathematics instruction.

5 “(4) Assurances that the State or eligible entity
6 will monitor implementation of approved subgrantee
7 plans.

8 “(5) A description of how the State or eligible
9 entity will emphasize experiential and hands-on
10 learning activities and field experiences and use
11 grant funds to provide equipment and materials to
12 support these activities.

13 “(c) COMPETITIVE GRANT APPLICATIONS.—In addi-
14 tion to the other application requirements in this section,
15 a State that desires to receive a competitive grant under
16 section 2203(b) shall submit, as part of the application
17 described in subsection (a), a statewide STEM plan that
18 describes how the State will integrate the proposed activi-
19 ties to be supported with existing STEM education related
20 efforts in the State.

21 “(d) ADDITIONAL FUNDING.—A State or eligible en-
22 tity that submits a request to use the additional State ac-
23 tivities reservation described in section 2205(d)(2), shall
24 provide, in a manner that addresses the needs identified
25 under subsection (b)(1), a description of the activities that

1 the eligible entity will carry out with such funds, con-
2 sistent with section 2205.

3 **“SEC. 2205. AUTHORIZED ACTIVITIES.**

4 “(a) **REQUIRED ACTIVITIES.**—Each State or eligible
5 entity that receives a grant under this part shall use the
6 grant funds to carry out each of the following activities:

7 “(1) Increasing access for students in preschool
8 through grade 12 that belong to groups that are tra-
9 ditionally underrepresented in STEM subject fields
10 (including female students, minority students, stu-
11 dents who are limited English proficient, students
12 who are children with disabilities, and students from
13 low-income families) to high-quality courses in the
14 identified subjects.

15 “(2) Implementing evidence-based programs of
16 instruction based on high-quality standards and as-
17 sessments in the identified subjects.

18 “(3) Providing professional development and
19 other comprehensive systems of support for teachers
20 and school leaders to promote high-quality instruc-
21 tion and instructional leadership in the identified
22 subjects.

23 “(4) Providing technical assistance to sub-
24 grantees and other high-need schools and local edu-
25 cational agencies in order to improve student

1 achievement and narrow achievement gaps in identi-
2 fied subjects, including through—

3 “(A) the development and implementation
4 of multi-tiered systems of support; and

5 “(B) the development of curricula con-
6 sistent with the principals of universal design
7 for learning as defined in section 103 of the
8 Higher Education Act of 1965.

9 “(5) Providing equipment and materials to sup-
10 port experiential learning activities in STEM sub-
11 jects.

12 “(b) PERMISSIBLE ACTIVITIES.—Each State or eligi-
13 ble entity that receives a grant under this part may use
14 the grant funds to carry out 1 or more of the following
15 activities:

16 “(1) Recruiting qualified teachers and instruc-
17 tional leaders who are trained in identified subjects,
18 including teachers who have transitioned into the
19 teaching profession from a career in science, tech-
20 nology, engineering, and mathematics fields.

21 “(2) Providing induction and mentoring serv-
22 ices to new teachers in identified subjects.

23 “(3) Providing opportunities for teachers to
24 partner with after school program providers to offer

1 hands-on engaging STEM programming that com-
2 plements and supplements the school day.

3 “(4) Developing instructional supports, such as
4 curricula and assessments, which shall be evidence-
5 based and aligned with State academic standards
6 under section 1111(b), and may include Internet-
7 based curricula and Internet-based instructional sup-
8 ports.

9 “(5) Implementing an interdisciplinary ap-
10 proach, by integrating instruction in 1 or more
11 STEM subjects with reading, English language arts,
12 or instruction in other core academic subjects (as
13 defined in section 9101) and noncore academic sub-
14 jects.

15 “(6) Establishing and operating a STEM mas-
16 ter teacher corps program.

17 “(c) SUBGRANTS.—

18 “(1) IN GENERAL.—Each State or eligible enti-
19 ty that receives a grant under this part shall award
20 subgrants, on a competitive basis, to eligible sub-
21 grantees.

22 “(2) MINIMUM SUBGRANT.—A State or eligible
23 entity shall award subgrants under this subsection
24 that are of sufficient size and scope to support high-

1 quality, evidence-based, effective programs that are
2 consistent with the purpose of this part.

3 “(3) SUBGRANTEE APPLICATION.—

4 “(A) IN GENERAL.—Each eligible sub-
5 grantee desiring a subgrant under this sub-
6 section shall submit an application to the State
7 or eligible entity at such time, in such manner,
8 and accompanied by such information as the
9 State or eligible entity may require.

10 “(B) CONTENTS OF SUBGRANTEE APPLI-
11 CATION.—At a minimum, the application de-
12 scribed in subparagraph (A) shall include the
13 following:

14 “(i) A description of the activities that
15 the eligible subgrantee will carry out, and
16 how such activities will improve teaching
17 and student academic achievement in the
18 identified subjects, in a manner consistent
19 with scientifically valid research.

20 “(ii) A description of how the eligible
21 subgrantee will use funds provided under
22 this subsection to serve students and
23 teachers in high-need schools.

24 “(iii) A description of how funds pro-
25 vided under this subsection will be coordi-

1 nated with other Federal, State, and local
2 programs and activities, including career
3 and technical education programs author-
4 ized under the Carl D. Perkins Career and
5 Technical Education Act of 2006 (20
6 U.S.C. 2301 et seq.).

7 “(iv) If the eligible subgrantee is
8 working with outside partners, a descrip-
9 tion of how such outside partners will be
10 involved in improving instruction and in-
11 creasing access to high-quality learning ex-
12 periences in the identified subjects.

13 “(4) SUBGRANTEE USE OF FUNDS.—

14 “(A) REQUIRED USE OF FUNDS.—Each el-
15 igible subgrantee that receives a subgrant under
16 this subsection shall use the subgrant funds to
17 carry out activities for students in preschool
18 through grade 12, consistent with the activities
19 described in the subgrantee’s application, which
20 shall include—

21 “(i) high-quality teacher and instruc-
22 tional leader recruitment, support, evalua-
23 tion, and professional development in the
24 identified subjects;

1 “(ii) professional development, which
2 may include development and support for
3 instructional coaches, to enable teachers
4 and instructional leaders to increase stu-
5 dent achievement in identified subjects,
6 through—

7 “(I) implementation of classroom
8 assessments; and

9 “(II) differentiation of instruc-
10 tion in identified subjects for all stu-
11 dents, including for students who are
12 children with disabilities and students
13 who are limited English proficient;

14 “(iii) activities to—

15 “(I) improve the content knowl-
16 edge of teachers; and

17 “(II) facilitate professional col-
18 laboration, which may include pro-
19 viding time for such collaborations;

20 “(iv) the development, adoption, and
21 improvement of high-quality curricula and
22 instructional supports that—

23 “(I) are aligned with State aca-
24 demic standards under section
25 1111(b); and

1 “(II) the eligible subgrantee will
2 use to improve student academic
3 achievement in identified subjects;

4 “(v) the development or improvement,
5 and implementation, of multi-tiered sys-
6 tems of support to provide early inter-
7 vening services and to increase student
8 achievement in 1 or more of the identified
9 subjects; and

10 “(vi) integrating instruction in the
11 identified subjects with instruction in read-
12 ing, English language arts, or other core
13 and noncore academic subjects.

14 “(B) PERMISSIBLE USE OF FUNDS.—In
15 addition to the required activities described in
16 subparagraph (A), each eligible subgrantee that
17 receives a subgrant under this subsection, may
18 also use the subgrant funds to—

19 “(i) support the participation of low-
20 income students in nonprofit competitions,
21 out-of-school activities, and field experi-
22 ences related to STEM subjects (such as
23 robotics, science research, invention, math-
24 ematics, and technology competitions), in-
25 cluding—

1 “(I) the purchase of parts and
2 supplies needed to participate in such
3 competitions;

4 “(II) incentives and stipends for
5 teachers and instructional leaders who
6 are involved in assisting students and
7 preparing students for such competi-
8 tions, if such activities fall outside the
9 regular duties and responsibilities of
10 such teachers and instructional lead-
11 ers; and

12 “(III) paying expenses associated
13 with the participation of low-income
14 students in such local, regional, or na-
15 tional competitions; and

16 “(ii) broaden secondary school stu-
17 dents’ access to, and interest in, careers
18 that require academic preparation in 1 or
19 more identified subjects.

20 “(C) LIMITATION.—Each subgrantee that
21 receives a subgrant under this subsection shall
22 not expend more than 15 percent of the
23 subgrant funds on the activities described in
24 subparagraph (B).

25 “(D) MATCHING FUNDS.—

1 “(i) IN GENERAL.—A State or eligible
2 entity may require an eligible subgrantee
3 receiving a subgrant under this subsection
4 to demonstrate that such subgrantee has
5 obtained a commitment from 1 or more
6 outside partners to match, using non-Fed-
7 eral funds, a portion of the amount of
8 subgrant funds, in an amount determined
9 by the State or eligible entity.

10 “(ii) REQUIRED MINIMUM.—Notwith-
11 standing clause (i), if an eligible sub-
12 grantee partners with an outside partner
13 that is a for-profit entity, such subgrantee
14 shall obtain matching funds from the out-
15 side partner in an amount equal to not less
16 than 25 percent of the amount of the
17 subgrant.

18 “(d) STATE ACTIVITIES.—

19 “(1) IN GENERAL.—Each State or eligible enti-
20 ty that receives a grant under this part may use not
21 more than 5 percent of grant funds for—

22 “(A) administration costs;

23 “(B) monitoring the implementation of
24 subgrants;

1 “(C) providing technical assistance to sub-
2 grantees; and

3 “(D) evaluating subgrants in coordination
4 with the evaluation described in section 2207.

5 “(2) RESERVATION.—Each State or eligible en-
6 tity that receives a grant under this part may sub-
7 mit a request to the Secretary to reserve not more
8 than 15 percent of grant funds, inclusive of the
9 amount described in paragraph (1), for additional
10 State activities, consistent with subsections (a) and
11 (b).

12 **“SEC. 2206. PERFORMANCE METRICS; REPORT.**

13 “(a) ESTABLISHMENT OF PERFORMANCE
14 METRICS.—The Secretary, acting through the Director of
15 the Institute of Education Sciences, shall establish per-
16 formance metrics to evaluate the effectiveness of the ac-
17 tivities carried out under this part.

18 “(b) ANNUAL REPORT.—Each State or eligible entity
19 that receives a grant under this part shall prepare and
20 submit an annual report to the Secretary, which shall in-
21 clude information relevant to the performance metrics de-
22 scribed in subsection (a).

23 **“SEC. 2207. EVALUATION.**

24 “From the amount reserved under section
25 2203(a)(1)(B), the Secretary shall—

1 “(1) acting through the Director of the Insti-
2 tute of Education Sciences, and in consultation with
3 the Director of the National Science Foundation—

4 “(A) evaluate the implementation and im-
5 pact of the activities supported under this part,
6 including progress measured by the metrics es-
7 tablished under section 2206(a); and

8 “(B) identify best practices to improve in-
9 struction in STEM subjects; and

10 “(2) disseminate, in consultation with the Na-
11 tional Science Foundation, research on best prac-
12 tices to improve instruction in STEM subjects.

13 **“SEC. 2208. STEM MASTER TEACHER CORPS GRANT PRO-**
14 **GRAM.**

15 “(a) GRANTS AUTHORIZED.—From the funds re-
16 served under section 2203(a)(1)(C), the Secretary shall
17 award 1 or more grants, on a competitive basis, to entities
18 described in subsection (b)(1) to enable such entities to
19 establish and operate a STEM master teacher corps pro-
20 gram.

21 “(b) STEM MASTER TEACHER CORPS.—The term
22 ‘STEM master teacher corps’ (referred to in this section
23 as the ‘corps’) means a program—

24 “(1) operated by 1 or more State educational
25 agencies, or a consortium of local educational agen-

1 cies, acting in partnership with 1 or more outside
2 partners that have a demonstrated record of success
3 in improving the effectiveness of science, technology,
4 engineering, and mathematics teachers or increasing
5 the retention of such teachers;

6 “(2) that selects a group of highly rated teach-
7 ers (through a process, and for a duration, deter-
8 mined by the entity described in paragraph (1)), as
9 members of the corps, that constitutes not less than
10 5 percent and not more than 10 percent of elemen-
11 tary school, middle school, and high school teachers
12 who teach science, technology, engineering, and
13 mathematics subjects and who—

14 “(A) teach in a participating high-need
15 school in the region served by the entity de-
16 scribed in paragraph (1); or

17 “(B) agree to teach in a participating
18 high-need school in the region served by the en-
19 tity described in paragraph (1) if accepted as a
20 member of the corps; and

21 “(3) that aims to attract, improve, and retain
22 teachers who teach science, technology, engineering,
23 and mathematics subjects and to increase student
24 achievement in such subjects, including by—

1 “(A) providing instructional leadership re-
2 sponsibilities for corps members in their
3 schools, local educational agencies, or States,
4 such as mentoring beginning science, tech-
5 nology, engineering, and mathematics teachers
6 and leading professional development activities
7 for teachers not participating in the corps;

8 “(B) providing corps members with re-
9 search-based professional development on in-
10 structional leadership and effective teaching
11 methods for science, technology, engineering,
12 and mathematics subjects;

13 “(C) providing each teacher who is a corps
14 member with a salary supplement of not less
15 than \$10,000 per year, in recognition of such
16 teacher’s teaching accomplishments, leadership,
17 and increased responsibilities, for each year
18 such teacher serves as a member of the corps;
19 and

20 “(D) building a community of practice
21 among corps members to enable such members
22 to network, collaborate, and to share best prac-
23 tices and resources with each other.

24 “(c) DURATION.—

1 “(1) IN GENERAL.—Grants awarded under this
2 section shall be for a period of not more than 3
3 years.

4 “(2) RENEWAL.—

5 “(A) IN GENERAL.—If a grantee under
6 this section demonstrates progress, as measured
7 by the metrics described in section 2206(a), the
8 Secretary may renew a grant under this section
9 for an additional 2-year period.

10 “(B) REDUCED FUNDING.—Grant funds
11 awarded under subparagraph (A) shall be
12 awarded at a reduced amount.

13 “(d) APPLICATION.—

14 “(1) IN GENERAL.—Each entity described in
15 subsection (b)(1) desiring a grant under this section
16 shall submit an application to the Secretary at such
17 time, in such manner, and accompanied by such in-
18 formation as the Secretary may require.

19 “(2) CONTENTS.—At a minimum, an applica-
20 tion submitted under paragraph (1) shall include the
21 following:

22 “(A) A plan to implement a corps program
23 that is of sufficient size and scope to have a
24 substantial, measurable effect on—

1 “(i) student academic achievement in
2 science, technology, engineering, and math-
3 ematics subjects in the schools where corps
4 members teach; and

5 “(ii) the effectiveness and retention
6 of—

7 “(I) corps members; and

8 “(II) other teachers of science,
9 technology, engineering, and mathe-
10 matics subjects who work with, or are
11 mentored by, corps members.

12 “(B) A description of how the entity de-
13 scribed in subsection (b)(1) plans to sustain the
14 program after the expiration of the grant under
15 this section.

16 “(e) COMPETITIVE PRIORITY.—In awarding grants
17 under this section, the Secretary shall give priority to ap-
18 plicants that will include rural schools among the schools
19 that the applicant will serve through the program.

20 “(f) MATCHING FUNDS.—The Secretary may require
21 a grantee under this section to provide non-Federal
22 matching funds in an amount equal to the amount of
23 grant funds awarded under this section.

24 “(g) EQUITABLE ACCESS.—If the entity described in
25 subsection (b)(1) includes a State educational agency,

1 such entity shall ensure that rural schools located in the
2 region that will be served by the entity have equitable ac-
3 cess to the STEM master teacher corps program.

4 **“SEC. 2209. SUPPLEMENT NOT SUPPLANT.**

5 “Funds received under this part shall be used to sup-
6 plement, and not supplant, funds that would otherwise be
7 used for activities authorized under this part.

8 **“SEC. 2210. MAINTENANCE OF EFFORT.**

9 “A State that receives funds under this part for a
10 fiscal year shall maintain the fiscal effort provided by the
11 State for the subjects supported by the funds under this
12 part at a level equal to or greater than the level of such
13 fiscal effort for the preceding fiscal year.

14 **“SEC. 2211. AUTHORIZATION OF APPROPRIATIONS.**

15 “There are authorized to be appropriated to carry out
16 this part such sums as may be necessary.”

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