

111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 6355

To amend the Elementary and Secondary Education Act of 1965 to provide for the development of State statistical literacy plans and to authorize the Secretary of Education to make grants for statistics-related teacher professional development and the improvement of statistics education.

---

## IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 29, 2010

Mr. LOEBSACK introduced the following bill; which was referred to the  
Committee on Education and Labor

---

## A BILL

To amend the Elementary and Secondary Education Act of 1965 to provide for the development of State statistical literacy plans and to authorize the Secretary of Education to make grants for statistics-related teacher professional development and the improvement of statistics education.

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 “Statistical Teaching,  
5 Aptitude, and Training Act of 2010” or the “STAT Act  
6 of 2010”.

1 **SEC. 2. FINDINGS.**

2 The Congress finds the following:

3 (1) Statistical literacy, the understanding and  
4 use of the language and tools of statistics, is vital  
5 for United States citizens in an era of intense global  
6 competition and growing reliance on data, because of  
7 a statistically literate individual's ability to—

8 (A) ask and evaluate critical questions  
9 about the design of a study and the appro-  
10 priateness of the conclusions drawn from a  
11 study;

12 (B) distinguish arguments based on data  
13 and evidence from arguments based on anec-  
14 dotes;

15 (C) recognize and interpret different rep-  
16 resentations of data in context; and

17 (D) formulate questions that can be ad-  
18 dressed with data, collect and organize relevant  
19 data, and draw appropriate statistical conclu-  
20 sions.

21 (2) Statistical literacy is essential for both ef-  
22 fective citizenship and personal well-being because of  
23 the everyday need to—

24 (A) interpret and synthesize data displays  
25 and summaries, such as polls, surveys, and  
26 study outcomes; and

1 (B) critically evaluate claims based on  
2 data—

- 3 (i) as a consumer of the news media;  
4 (ii) in making medical decisions; and  
5 (iii) in making financial decisions,  
6 such as decisions related to a mortgage or  
7 a car repair.

8 (3) Statistics provides tools for describing varia-  
9 bility and uncertainty to support making informed  
10 decisions, both large and small. A foundation in sta-  
11 tistical thinking helps individuals to evaluate risks  
12 and weigh the likelihood of various outcomes.

13 (4) Statistical literacy provides tools for dealing  
14 with uncertainty. There is uncertainty in virtually  
15 every situation and number individuals face, but sta-  
16 tistical literacy enables individuals to make rational  
17 decisions in the face of uncertainty.

18 (5) Statistical concepts are important for the  
19 study of mathematics, the natural sciences, and the  
20 social sciences. In mathematics, statistical literacy  
21 provides applications and real-life illustrations of the  
22 importance of mathematics, which motivates stu-  
23 dents for deeper learning. In the natural sciences  
24 and the social sciences, statistical problem-solving

1 teaches a framework for the scientific process and  
2 an understanding of data and their limitations.

3 (6) Effective statistical literacy education in ele-  
4 mentary and secondary school would—

5 (A) produce graduates better equipped  
6 with the skills necessary to compete in the  
7 workforce of the 21st century, with its bur-  
8 geoning growth of and dependence on data;

9 (B) enhance student learning and problem-  
10 solving skills across disciplines; and

11 (C) equip students with knowledge needed  
12 to be responsible and engaged citizens.

13 (7) Room exists for significant improvement in  
14 statistics education because of the following factors:

15 (A) While national mathematics standards  
16 and benchmarks from organizations such as  
17 Achieve, the College Board, and the National  
18 Council for Teachers of Mathematics support  
19 data analysis and probability as essential com-  
20 ponents of mathematics education, many ele-  
21 mentary and secondary school teachers have not  
22 received the necessary training at the appro-  
23 priate level to teach statistical literacy in their  
24 classrooms.

1           (B) Most State guidelines include statistics  
2           and probability, but the topic tends to be  
3           skipped because of the lack of teacher prepara-  
4           tion and proper emphasis on the topic in State  
5           assessments.

6           (C) While some students do take a course  
7           in statistics, sound statistical reasoning skills  
8           take time for students to develop and cannot be  
9           honed in a single course. Foundational statis-  
10          tical concepts should be introduced and nur-  
11          tured in the elementary grades and strength-  
12          ened and expanded throughout the middle  
13          school and high school grades and in postsec-  
14          ondary courses.

15          (D) Teacher training programs at institu-  
16          tions of higher education for pre-service mathe-  
17          matics and science teachers and professional de-  
18          velopment programs designed to reach in-serv-  
19          ice mathematics and science teachers do not yet  
20          include statistical concepts and pedagogy at the  
21          appropriate level.

22          (E) Teachers do not yet have access to ma-  
23          terials supported by statistics education re-  
24          search.

1 **SEC. 3. STATISTICAL LITERACY EDUCATION.**

2 (a) IN GENERAL.—Part D of title V of the Elemen-  
 3 tary and Secondary Education Act of 1965 (20 U.S.C.  
 4 7241 et seq.) is amended by adding at the end the fol-  
 5 lowing new subpart:

6 **“Subpart 22—Statistical Literacy Education**

7 **“CHAPTER A—STATISTICAL LITERACY**

8 **PLANS**

9 **“SEC. 5621. PLAN REQUIRED; DEVELOPMENT, SUBMISSION,**  
 10 **AND APPROVAL.**

11 “(a) PLAN REQUIRED.—To be eligible to receive a  
 12 grant under section 5632(a), a State educational agency  
 13 shall submit a statistical literacy plan to the Secretary in  
 14 accordance with this section.

15 “(b) DEVELOPMENT.—

16 “(1) IN GENERAL.—A State educational agency  
 17 shall, in developing a statistical literacy plan—

18 “(A) consult with the Statistical Literacy  
 19 Advisory Panel established by the State edu-  
 20 cational agency under paragraph (2)(A); and

21 “(B) seek input from the public.

22 “(2) STATISTICAL LITERACY ADVISORY  
 23 PANEL.—

24 “(A) IN GENERAL.—A State educational  
 25 agency developing a statistical literacy plan  
 26 shall establish a Statistical Literacy Advisory

1 Panel to advise the State educational agency on  
2 the contents of the plan.

3 “(B) COMPOSITION OF PANEL.—A Statis-  
4 tical Literacy Advisory Panel of a State edu-  
5 cational agency shall include the following mem-  
6 bers, to be appointed by the State educational  
7 agency:

8 “(i) 1 member from the State edu-  
9 cational agency and 1 member from a local  
10 educational agency within the State.

11 “(ii) 2 statisticians from institutions  
12 of higher education, at least 1 of whom has  
13 expertise in teaching statistics education.

14 “(iii) 2 teachers from public elemen-  
15 tary schools or public secondary schools, 1  
16 of whom teaches a grade that is not higher  
17 than the 8th grade and 1 of whom teaches  
18 a grade that is not lower than the 9th  
19 grade and not higher than the 12th grade.

20 “(iv) 1 member from a teacher train-  
21 ing department or professional develop-  
22 ment center of an institution of higher  
23 education who has expertise in statistics or  
24 mathematics education.

1           “(3) PLAN DEVELOPED FOR OTHER PUR-  
2           POSES.—In the case of a State educational agency  
3           that, prior to the date of the enactment of this sub-  
4           part, developed a statistical literacy plan in coopera-  
5           tion with State statistical literacy and education ex-  
6           perts for purposes other than meeting the require-  
7           ment of subsection (a), the agency shall be deemed  
8           to meet the requirements of paragraphs (1) and (2).

9           “(c) APPROVAL.—

10           “(1) IN GENERAL.—Not later than 120 days  
11           after submission by a State educational agency of a  
12           statistical literacy plan, the Secretary shall, with  
13           input from the Peer Review Board established under  
14           paragraph (5)(A)—

15           “(A) if the plan meets the criteria de-  
16           scribed in paragraph (2), approve the plan; or

17           “(B) if the plan does not meet such cri-  
18           teria, inform the State educational agency of  
19           any deficiencies in the plan and implement the  
20           process described in paragraph (3).

21           “(2) CRITERIA FOR APPROVAL.—The criteria  
22           described in this paragraph are the following:

23           “(A) The State educational agency certifies  
24           to the Secretary that the plan was developed in  
25           accordance with subsection (b).



1           “(B) The plan includes the contents de-  
2 scribed in subsection (d).

3           “(C) Implementation of the plan will—

4                 “(i) achieve the objectives described in  
5 subsection (e); and

6                 “(ii) ensure statistical literacy appro-  
7 priate to the grade-level of all students in  
8 elementary schools and secondary schools  
9 served by the State educational agency.

10           “(3) PROCEDURE IF PLAN INADEQUATE.—

11                 “(A) NOTICE AND OPPORTUNITY FOR RE-  
12 VISION.—The Secretary may not deny approval  
13 of a statistical literacy plan submitted by a  
14 State educational agency under paragraph (1)  
15 unless the Secretary has first—

16                 “(i) informed the agency of any defi-  
17 ciencies in the plan;

18                 “(ii) provided the agency with an op-  
19 portunity for a hearing on such defi-  
20 ciencies;

21                 “(iii) provided the agency with a pe-  
22 riod of at least 90 days in which to revise  
23 the plan; and

24                 “(iv) offered the agency technical as-  
25 sistance in revising the plan.

1           “(B) RESUBMISSION AND FINAL DECI-  
2           SION.—A State educational agency that has  
3           been given an opportunity to revise a statistical  
4           literacy plan under subparagraph (A)(iii) shall  
5           submit the revised plan to the Secretary not  
6           later than the end of the period described in  
7           such subparagraph. Not later than 120 days  
8           after receiving the revised plan, the Secretary  
9           shall approve or disapprove the plan.

10           “(4) STATE ACADEMIC CONTENT STANDARDS  
11           AND ASSESSMENTS.—The Secretary may not, as a  
12           condition of approval under this subsection of a sta-  
13           tistical literacy plan of a State educational agency,  
14           require that the State educational agency—

15                   “(A) include in or delete from the statis-  
16                   tical literacy plan one or more specific elements  
17                   of the academic content standards adopted  
18                   under section 1111(b)(1)(A); or

19                   “(B) use specific instruments or items for  
20                   academic assessment.

21           “(5) PEER REVIEW BOARD.—

22                   “(A) ESTABLISHMENT.—The Secretary  
23                   shall establish a Peer Review Board to advise  
24                   the Secretary on whether a statistical literacy  
25                   plan submitted by a State educational agency

1 should be approved, revised, or (after the oppor-  
2 tunity for revision required by paragraph  
3 (3)(A)(iii)) disapproved.

4 “(B) MEMBERSHIP.—The Peer Review  
5 Board shall be composed of a number of mem-  
6 bers to be determined by the Secretary, to be  
7 appointed by the Secretary. The Secretary shall  
8 appoint members that—

9 “(i) are representative of parents,  
10 teachers, State educational agencies, local  
11 educational agencies, and nongovernmental  
12 organizations; and

13 “(ii) are familiar with current issues  
14 in the field of statistics and statistics edu-  
15 cation and with the statistics education  
16 needs of students.

17 “(C) COMPENSATION.—

18 “(i) IN GENERAL.—Except as pro-  
19 vided in clause (ii), members of the Peer  
20 Review Board shall serve without com-  
21 pensation.

22 “(ii) TRAVEL EXPENSES.—Each  
23 member of the Peer Review Board shall re-  
24 ceive travel expenses, including per diem in  
25 lieu of subsistence, in accordance with ap-

1                   plicable provisions under subchapter I of  
2                   chapter 57 of title 5, United States Code.

3           “(d) CONTENTS.—The contents described in this sub-  
4 section are the following:

5                   “(1) A description of how the State educational  
6 agency will measure the statistical literacy of stu-  
7 dents, including—

8                           “(A) challenging State academic content  
9 standards and student academic achievement  
10 standards in statistics education, and how sta-  
11 tistics education instruction will be integrated  
12 throughout the curriculum used in elementary  
13 schools and secondary schools; and

14                           “(B) a description of the relationship of  
15 the plan to the secondary school graduation re-  
16 quirements of the State.

17                   “(2) A description of programs for professional  
18 development for teachers to improve—

19                           “(A) statistical subject-matter knowledge;  
20 and

21                           “(B) pedagogical skills in teaching statis-  
22 tical concepts, including the use of—

23                                   “(i) interdisciplinary and research-  
24 based learning; and

1                   “(ii) innovative technology in the  
2                   classroom.

3                   “(3) A description of how the State educational  
4                   agency will implement the plan, including securing  
5                   funding and other necessary support.

6                   “(e) OBJECTIVES.—The objectives described in this  
7                   subsection are the following:

8                   “(1) To prepare students to make informed de-  
9                   cisions in the face of uncertainty, including decisions  
10                  related to personal finance, using statistical rea-  
11                  soning necessary to interpret data and critically  
12                  evaluate claims based on data.

13                  “(2) To provide experiences that incorporate  
14                  statistics into the regular school curriculum and to  
15                  create programs that teach statistical problem-solv-  
16                  ing as an investigative process, including experiences  
17                  and programs that—

18                         “(A) promote statistical thinking through  
19                         hands-on problem-solving and concept activities;

20                         “(B) emphasize concepts over formulas,  
21                         using real-world data;

22                         “(C) stress the importance of context in  
23                         problem-solving;

24                         “(D) recognize the omnipresence of varia-  
25                         bility; and

1           “(E) use appropriate technology to empha-  
2           size concepts and support learning.

3           “(3) To create opportunities for enhanced and  
4           ongoing professional development for teachers that  
5           improves—

6           “(A) statistical subject-matter knowledge;

7           “(B) pedagogical skills in teaching statis-  
8           tical concepts, including the use of—

9           “(i) interdisciplinary and research-  
10          based learning; and

11          “(ii) innovative technology in the  
12          classroom; and

13          “(C) the ability of teachers to collect, orga-  
14          nize, analyze, and interpret classroom data to  
15          inform instruction and evaluate student  
16          progress in statistical literacy.

17          “(f) UPDATES OF PLAN.—A State educational agen-  
18          cy that has a statistical literacy plan approved under sub-  
19          section (e) and wishes to remain eligible for grant funds  
20          under section 5632(a) shall submit to the Secretary for  
21          approval under such subsection an updated plan—

22          “(1) not later than 4 years after the date of the  
23          approval of the plan and every 4 years thereafter;  
24          and

1           “(2) at any other time the agency considers  
2           modification of the plan to be necessary to ensure  
3           that the plan continues to achieve the objectives de-  
4           scribed in subsection (e).

5           “(g) REPORT ON IMPLEMENTATION OF PLAN.—

6           “(1) IN GENERAL.—A State educational agency  
7           shall submit to the Secretary, not later than 2 years  
8           after receiving a grant under section 5632(a), and  
9           biennially thereafter for each 2-year period during  
10          any part of which the agency received grant funds  
11          under such section, a report on the implementation  
12          of the statistical literacy plan of the agency for  
13          which an approval under subsection (e) is in effect  
14          during such period.

15          “(2) REPORTING REQUIREMENTS.—A report re-  
16          quired by paragraph (1) shall—

17                  “(A) be in a form and include such con-  
18                  tents as the Secretary may require; and

19                  “(B) be based on evaluation activities con-  
20                  ducted by the State educational agency on a  
21                  regular basis throughout implementation of the  
22                  plan.

23          “(3) PUBLIC AVAILABILITY.—The Secretary  
24          shall make each report required by paragraph (1)  
25          available to the public on an appropriate website.

1 **“SEC. 5622. GRANTS FOR DEVELOPMENT OF PLAN.**

2 “(a) **AUTHORIZATION.**—The Secretary may make  
3 grants on a competitive basis to State educational agencies  
4 for the development of statistical literacy plans required  
5 by section 5621(a).

6 “(b) **ELIGIBILITY.**—The Secretary may only make a  
7 grant under subsection (a) to a State educational agency  
8 that—

9 “(1) the Secretary determines lacks the re-  
10 sources to develop an adequate statistical literacy  
11 plan; and

12 “(2) submits to the Secretary an application at  
13 such time, in such form, and containing such infor-  
14 mation and assurances as the Secretary may require.

15 “(c) **REQUIRED ACTIVITIES.**—A State educational  
16 agency receiving a grant under subsection (a) shall—

17 “(1) not later than 1 year after receiving the  
18 grant, submit to the Secretary a statistical literacy  
19 plan in accordance with section 5621;

20 “(2) if the Secretary finds any deficiencies in  
21 the plan, submit a revised plan in accordance with  
22 the procedures described in subsection (c)(3) of such  
23 section; and

24 “(3) not later than 30 days after the Secretary  
25 approves the plan, apply for a grant under section  
26 5632(a).



1 “(d) DURATION.—A grant under subsection (a) shall  
2 be for a period of not more than 1 year.

3 “(e) NONRENEWABILITY.—The Secretary may not  
4 award more than 1 grant under subsection (a) to the same  
5 State educational agency.

6 **“CHAPTER B—STATISTICAL EDUCATION**  
7 **PROFESSIONAL DEVELOPMENT GRANTS**

8 **“SEC. 5631. PURPOSE.**

9 “The purpose of this chapter is to ensure the aca-  
10 demic achievement of students in statistical literacy  
11 through the professional development of teachers and  
12 other education professionals.

13 **“SEC. 5632. FORMULA GRANTS TO STATES.**

14 “(a) AUTHORIZATION.—Using the allocation formula  
15 developed under subsection (b), the Secretary shall make  
16 one or more grants to each State educational agency that  
17 has a statistical literacy plan approved under section  
18 5621(c) and submits an application for a grant under this  
19 subsection to enable each such agency to award subgrants  
20 to eligible partnerships under section 5633(a).

21 “(b) REGULATIONS.—The Secretary shall promul-  
22 gate regulations to implement this chapter. Such regula-  
23 tions shall include the formula by which the Secretary will  
24 allocate grants to State educational agencies under sub-  
25 section (a).



1 development needs, with respect to the teaching  
2 and learning of statistical content, of the enti-  
3 ties served by the eligible partnership.

4 “(B) An explanation of how the activities  
5 to be carried out by the eligible partnership are  
6 expected to improve student academic achieve-  
7 ment and strengthen the quality of statistical  
8 instruction at schools served by the eligible  
9 partnership.

10 “(C) A description of how the activities to  
11 be carried out by the eligible partnership—

12 “(i) will be aligned with challenging  
13 State academic content standards and stu-  
14 dent academic achievement standards in  
15 statistics education and with the statistical  
16 literacy plan of the State educational agen-  
17 cy approved under section 5621(c); and

18 “(ii) will advance the teaching of  
19 interdisciplinary courses that integrate sta-  
20 tistics into the study of natural, social, and  
21 economic systems.

22 “(D) A description of how the eligible part-  
23 nership will carry out the activities described in  
24 subsection (c).

1           “(E) An evaluation and accountability plan  
2           that establishes rigorous objectives to measure  
3           the impact of the activities carried out with  
4           grant funds, including objectives to measure the  
5           increase in the number of teachers served by  
6           the eligible partnership who participate in sta-  
7           tistics education content-based professional de-  
8           velopment activities.

9           “(F) A description of how the eligible part-  
10          nership will continue the activities carried out  
11          with grant funds after the grant period has ex-  
12          pired.

13          “(c) REQUIRED ACTIVITIES.—An eligible partnership  
14          receiving a grant under subsection (a) shall use the grant  
15          funds to carry out the following activities:

16               “(1) Creating opportunities for enhanced and  
17               ongoing professional development of teachers that  
18               improves the statistical subject-matter knowledge of  
19               such teachers.

20               “(2) Creating opportunities for enhanced and  
21               ongoing professional development of teachers that  
22               improves pedagogical skills in teaching statistical  
23               concepts, including in the use of—

24                       “(A) interdisciplinary and research-based  
25                       learning; and

1                   “(B) innovative classroom technology.

2                   “(3) Establishing and operating statistics edu-  
3                   cation summer workshops or institutes, including  
4                   follow-up training, for elementary school and sec-  
5                   ondary school teachers to improve pedagogical skills  
6                   and subject-matter knowledge with respect to the  
7                   teaching of statistics concepts.

8                   “(4) Developing or redesigning more rigorous  
9                   statistics education curricula that—

10                   “(A) are aligned with challenging State  
11                   academic content standards and student aca-  
12                   demic achievement standards in statistics edu-  
13                   cation and with the statistical literacy plan of  
14                   the State educational agency; and

15                   “(B) advance the teaching of interdiscipli-  
16                   nary courses that integrate statistics in the  
17                   teaching of mathematics, science, economics, fi-  
18                   nance and financial literacy, and social studies.

19                   “(5) Designing programs to prepare the teach-  
20                   ers at a school to provide mentoring and professional  
21                   development to other teachers at such school to im-  
22                   prove teacher statistics education subject-matter and  
23                   pedagogical skills.

24                   “(6) Establishing and operating programs to  
25                   bring teachers into contact with working profes-

1 sionals in statistical fields to expand the subject-  
2 matter knowledge of such teachers regarding statis-  
3 tical concepts and the research by such teachers on  
4 statistical issues.

5 “(7) Creating initiatives that seek to incor-  
6 porate statistics education into teacher training pro-  
7 grams or accreditation standards consistent with the  
8 statistical literacy plan of the State educational  
9 agency.

10 “(d) DURATION.—A grant under subsection (a) shall  
11 be for a period of not more than 4 years.

12 “(e) SUPPLEMENT, NOT SUPPLANT.—An eligible  
13 partnership receiving a grant under subsection (a) shall  
14 use such funds to supplement, not supplant, funds that  
15 would otherwise be used for the activities described in sub-  
16 section (c).

17 “(f) EVALUATION AND ACCOUNTABILITY REPORT.—  
18 Not later than 90 days after the end of each year in which  
19 an eligible partnership receives a grant under subsection  
20 (a) from a State educational agency, the eligible partner-  
21 ship shall submit a report to the State educational agency  
22 on the progress of the eligible partnership in meeting the  
23 objectives established in the evaluation and accountability  
24 plan of the eligible partnership required by subsection  
25 (b)(2)(E).

1       “(g) TERMINATION OF GRANT.—A State educational  
2 agency may terminate a grant to an eligible partnership  
3 at any time after the end of the 1st year of the grant  
4 based on the insufficiency of the progress of the eligible  
5 partnership in meeting the objectives established in the  
6 evaluation and accountability plan of the eligible partner-  
7 ship required by subsection (b)(2)(E).

8       **“SEC. 5634. ELIGIBLE PARTNERSHIP DEFINED.**

9       “In this chapter, the term ‘eligible partnership’  
10 means a partnership between a local educational agency  
11 and 1 or more of the following:

12               “(1) The teacher training department or profes-  
13 sional development center of an institution of higher  
14 education.

15               “(2) The statistics department of an institution  
16 of higher education.

17               “(3) Another local educational agency, a public  
18 elementary school or a public secondary school (in-  
19 cluding a public charter school), or a consortium of  
20 such schools.

21               “(4) A Federal, State, regional, or local statis-  
22 tical agency that has demonstrated effectiveness in  
23 improving the quality of statistics education teach-  
24 ers.

1    **“CHAPTER C—STATISTICAL EDUCATION**  
2    **GRANTS TO BUILD NATIONAL CAPACITY**

3    **“SEC. 5641. PURPOSE.**

4            “The purpose of this chapter is to strengthen statis-  
5 ties education as an integral part of the curriculum of ele-  
6 mentary schools and secondary schools in the United  
7 States.

8    **“SEC. 5642. GRANT PROGRAM.**

9            “(a) AUTHORIZATION.—From amounts reserved  
10 under section 5652(c), the Secretary may make grants,  
11 on a competitive basis, to eligible entities to enable the  
12 eligible entities to carry out activities described in sub-  
13 section (c).

14           “(b) ELIGIBILITY.—The Secretary may only make a  
15 grant under subsection (a) to an eligible entity that sub-  
16 mits to the Secretary an application at such time, in such  
17 form, and containing such information and assurances as  
18 the Secretary may require, including a description of how  
19 the entity will use grant funds to carry out 1 or more of  
20 the activities described in subsection (c).

21           “(c) USE OF FUNDS.—An eligible entity receiving a  
22 grant under subsection (a) shall use grant funds to carry  
23 out 1 or more of the following activities:

24                   “(1) Developing model State standards and cur-  
25 rriculum frameworks for statistics education that



1 meet challenging academic content standards and  
2 student academic achievement standards for statis-  
3 tics education.

4 “(2) Replicating or disseminating information  
5 about proven and tested model statistics education  
6 programs that provide interdisciplinary instruction  
7 that integrates statistics in mathematics, science, ec-  
8 onomics, and social studies.

9 “(3) Developing and implementing new policy  
10 approaches to advancing statistics education at the  
11 State and national level.

12 “(4) Conducting studies of national significance  
13 that—

14 “(A) provide a comprehensive, systematic,  
15 and formal assessment of the state of statistics  
16 education in the United States;

17 “(B) evaluate the effectiveness of teaching  
18 statistics as a separate subject, and as an inte-  
19 grating concept or theme; and

20 “(C) evaluate the effectiveness of statistics  
21 education in improving student academic  
22 achievement in mathematics, science, and other  
23 core academic subjects.

24 “(5) Conducting projects that advance wide-  
25 spread adoption by State educational agencies and

1 local educational agencies of statistics education con-  
2 tent standards.

3 “(d) DURATION.—A grant under subsection (a) shall  
4 be for a period of not less than 1 year and not more than  
5 5 years.

6 “(e) REPORTS.—

7 “(1) BY ELIGIBLE ENTITY TO SECRETARY.—  
8 Not later than 90 days after the end of each year  
9 in which an eligible entity receives a grant under  
10 subsection (a), the eligible entity shall submit to the  
11 Secretary a report that—

12 “(A) describes the activities carried out by  
13 the eligible entity using grant funds during the  
14 year covered by the report; and

15 “(B) assesses whether such activities have,  
16 directly or indirectly, helped State educational  
17 agencies, local educational agencies, and schools  
18 served by the eligible entity to make progress  
19 towards achieving the objectives described in  
20 section 5621(e).

21 “(2) BY SECRETARY TO CONGRESS.—Not later  
22 than 2 years after the date of the enactment of this  
23 subpart and annually thereafter for any year in  
24 which grants are made under subsection (a), the  
25 Secretary shall submit to Congress a report that—

1           “(A) describes the activities carried out by  
2           eligible entities using grants under subsection  
3           (a);

4           “(B) evaluates the success of such activi-  
5           ties in improving national and State statistics  
6           education capacity; and

7           “(C) makes such recommendations as the  
8           Secretary considers appropriate to promote the  
9           continuation and improvement of such activi-  
10          ties.

11          “(f) TERMINATION OF GRANT.—The Secretary may  
12          terminate a grant made to an eligible entity under sub-  
13          section (a) if—

14               “(1) the eligible entity fails to submit the report  
15               required by subsection (e)(1); or

16               “(2) the Secretary determines on the basis of  
17               such report that the performance of the eligible enti-  
18               ty with respect to improving statistics education is  
19               inadequate.

20          “(g) SUPPLEMENT, NOT SUPPLANT.—An eligible en-  
21          tity receiving a grant under subsection (a) shall use such  
22          funds to supplement, not supplant, funds that would oth-  
23          erwise be used for the activities carried out with grant  
24          funds.

1       “(h) ADMINISTRATIVE EXPENSES.—The Secretary  
2 may not use more than 7.5 percent of the amounts re-  
3 served under section 5652(c) for administrative expenses.

4 **“SEC. 5643. ELIGIBLE ENTITY DEFINED.**

5       “‘In this chapter, the term ‘eligible entity’ means—

6               “(1) a teacher training department or profes-  
7 sional development center of an institution of higher  
8 education;

9               “(2) the statistics or mathematical sciences de-  
10 partment of an institution of higher education;

11               “(3) a Federal, State, regional, or local statis-  
12 tical agency that has demonstrated effectiveness, ex-  
13 pertise, and experience in the development of the in-  
14 stitutional, financial, intellectual, or policy resources  
15 needed to help the field of statistics education be-  
16 come more effective and widely practiced;

17               “(4) a nonprofit organization that has dem-  
18 onstrated effectiveness, expertise, and experience in  
19 the development of the institutional, financial, intel-  
20 lectual, or policy resources needed to help the field  
21 of statistics education become more effective and  
22 widely practiced; or

23               “(5) any of the entities listed in paragraphs (1)  
24 through (4) in partnership with a local educational  
25 agency, a public elementary school or a public sec-

1       ondary school (including a public charter school), or  
2       a consortium of such schools.

3       **“CHAPTER D—GENERAL PROVISIONS**

4       **“SEC. 5651. STATISTICAL LITERACY DEFINED.**

5       “In this subpart, the term ‘statistical literacy’ means  
6       the understanding of and ability to use the language and  
7       tools of statistics, including the ability to—

8               “(1) ask and evaluate critical questions about  
9               the design of a study and the appropriateness of the  
10              conclusions drawn from a study;

11              “(2) distinguish arguments based on data and  
12              evidence from arguments based on anecdotes;

13              “(3) recognize and interpret different represen-  
14              tations of data in context; and

15              “(4) formulate questions that can be addressed  
16              with data, collect and organize relevant data, and  
17              draw appropriate statistical conclusions.

18       **“SEC. 5652. AUTHORIZATION OF APPROPRIATIONS.**

19       “(a) IN GENERAL.—There are authorized to be ap-  
20       propriated to carry out this subpart—

21              “(1) \$10,000,000 for fiscal year 2011;

22              “(2) \$20,000,000 for fiscal year 2012;

23              “(3) \$30,000,000 for fiscal year 2013; and

24              “(4) \$40,000,000 for fiscal year 2014.

1       “(b) AVAILABILITY.—Any amounts appropriated  
2 under subsection (a) are authorized to remain available  
3 until expended.

4       “(c) RESERVATION.—Of any amounts appropriated  
5 under subsection (a) for a fiscal year, the Secretary shall  
6 reserve not more than 10 percent to carry out chapter C.”.

7       (b) CONFORMING AMENDMENTS.—The table of con-  
8 tents of such Act is amended by inserting after the item  
9 relating to section 5618 the following:

SUBPART 22—STATISTICAL LITERACY EDUCATION

CHAPTER A—STATISTICAL LITERACY PLANS

Sec. 5621. Plan required; Development, submission, and approval.

Sec. 5622. Grants for development of plan.

CHAPTER B—STATISTICAL EDUCATION PROFESSIONAL DEVELOPMENT  
GRANTS

Sec. 5631. Purpose.

Sec. 5632. Formula grants to States.

Sec. 5633. Competitive subgrants to eligible partnerships.

Sec. 5634. Eligible partnership defined.

CHAPTER C—STATISTICAL EDUCATION GRANTS TO BUILD NATIONAL  
CAPACITY

Sec. 5641. Purpose.

Sec. 5642. Grant program.

Sec. 5643. Eligible entity defined.

CHAPTER D—GENERAL PROVISIONS

Sec. 5651. Statistical literacy defined.

Sec. 5652. Authorization of appropriations.

