

113TH CONGRESS
2^D SESSION

H. R. 4455

To require Federal agencies to collaborate in the development of freely available open source educational materials in college-level physics, chemistry, and math, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 10, 2014

Mr. FOSTER (for himself, Mr. RANGEL, and Ms. JACKSON LEE) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, 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 require Federal agencies to collaborate in the development of freely available open source educational materials in college-level physics, chemistry, and math, and for other purposes.

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 “Learning Opportuni-
5 ties With Creation of Open Source Textbooks (LOW
6 COST) Act of 2014”.

1 **SEC. 2. FINDINGS.**

2 Congress finds the following:

3 (1) According to the College Board, that the av-
4 erage student at a 4-year university spent an esti-
5 mated \$1,222 per year on college books and sup-
6 plies.

7 (2) According to the National Association of
8 College Stores, the gross margin on new college text-
9 books was 25.6 percent in 2012.

10 (3) The Government Accountability Office has
11 found that college textbook prices have risen at twice
12 the rate of annual inflation over the last two decades
13 and that new textbook prices increased 82 percent
14 over the last decade.

15 (4) An open source material project that would
16 make high quality educational materials freely avail-
17 able to the general public would reduce college text-
18 book costs and increase accessibility to such edu-
19 cation materials.

20 (5) College-level open source course work mate-
21 rials in math, physics, and chemistry represent a
22 high-priority first step in this area.

23 (6) The scientific and technical workforce at
24 Federal agencies, national laboratories, and federally
25 funded research and development centers could
26 make a valuable contribution to this effort.

1 (7) A Federal oversight role in the creation and
2 maintenance of standard, publicly vetted textbooks is
3 desirable to ensure that intellectual property is re-
4 spected and that public standards for quality, edu-
5 cational effectiveness, and scientific accuracy are
6 maintained.

7 **SEC. 3. OPEN SOURCE MATERIAL PILOT PROGRAM.**

8 (a) **IN GENERAL.**—Not later than 1 year after the
9 date of enactment of this Act, the Director shall begin de-
10 velopment of college freshman-level, high quality, open
11 source materials that—

12 (1) contain, at minimum, a comprehensive set
13 of textbooks or other educational materials covering
14 topics in physics, chemistry, and calculus;

15 (2) are posted on the Federal Open Source Ma-
16 terial Website; and

17 (3) are free of copyright violations.

18 (b) **POSTING DEADLINE.**—Not later than 4 years
19 after the date of enactment of this Act, the Director shall
20 have posted the materials described in subsection (a) on
21 the Federal Open Source Material Website.

22 (c) **SCREENING PROCEDURES.**—Before publishing
23 materials on the Federal Open Source Material Website,
24 the Director shall, in collaboration with the agencies de-
25 scribed in section 5(b), develop, implement, and establish

1 procedures for checking the veracity, accuracy, and edu-
2 cational effectiveness of open source materials.

3 **SEC. 4. FEDERAL OPEN SOURCE MATERIAL WEBSITE.**

4 (a) ESTABLISHMENT.—The Director shall establish
5 and maintain a Federal Open Source Material Website.

6 (b) AVAILABILITY OF MATERIALS.—Materials in the
7 Federal Open Source Material Website shall be made
8 available free of charge to, and may be downloaded, redis-
9 tributed, changed, revised, or otherwise altered by, any
10 member of the general public.

11 **SEC. 5. OPEN SOURCE MATERIAL REQUIREMENT FOR FED-**
12 **ERAL AGENCIES.**

13 (a) REQUIREMENT.—The head of each agency de-
14 scribed in subsection (b) shall, under the guidance of the
15 Director, collaborate with the heads of any other such
16 agency or any federally funded research and development
17 center to develop, implement, and establish procedures for
18 checking the veracity, accuracy, and educational effective-
19 ness of open source materials that are posted on the Fed-
20 eral Open Source Material Website.

21 (b) AGENCY FUNDING.—The head of each agency
22 that expends more than \$10,000,000 in a fiscal year on
23 scientific education or scientific outreach shall use at least
24 2 percent of such funds for collaboration described in sub-
25 section (a).

1 **SEC. 6. REGULATIONS.**

2 The Director shall prescribe regulations necessary to
3 implement this Act, including redistribution and attribu-
4 tion standards for open source materials produced under
5 this Act.

6 **SEC. 7. DEFINITIONS.**

7 In this Act:

8 (1) **DIRECTOR.**—The term “Director” means
9 the Director of the National Science Foundation.

10 (2) **FEDERAL OPEN SOURCE MATERIAL**
11 **WEBSITE.**—The term “Federal Open Source Mate-
12 rial Website” means the website established under
13 section 4(a).

14 (3) **HIGH QUALITY.**—The term “high quality”
15 means—

16 (A) tested for optimal student engagement;

17 (B) tested for optimal content consump-
18 tion;

19 (C) subjected to an editorial peer review
20 process; and

21 (D) free of copyright violations.

22 (4) **OPEN SOURCE MATERIALS.**—The term
23 “open source materials” means materials that are
24 posted on a website that are available free of charge
25 to, and may be downloaded, redistributed changed,

1 revised, or otherwise altered by, any member of the
2 general public.

3 **SEC. 8. GAO REPORT TO CONGRESS.**

4 Not later than July 1, 2018, the Comptroller General
5 shall prepare and submit a report to the Committee on
6 Commerce, Science, and Transportation of the Senate and
7 the Committee on Science, Space, and Technology of the
8 House of Representatives detailing—

9 (1) the open source materials created or adapt-
10 ed under this Act;

11 (2) the adoption of such open source materials;
12 and

13 (3) the savings generated for students, States,
14 and the Federal Government through the use of
15 open source materials.

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